

## From The Staff:

## WTFDA Headquarters, P.O. Box 202, Whiting, Indiana 46394

ANARC CONVENTION REPORT...More than 70 DXers were present in Schaumburg IL over the weekend of July 15-17 for this year's gathering of the Association of North American Radio Clubs. WTFDA's Saturday afternoon presentation on "How to Prepare a DX Club Magazine" was "one of the highlights of the program," according to host Jeff White of WINDX! We were proud to be the only ANARC club with its entire Board of Directors in attendance. In addition to the combined WTFDA presentation, this writer (Clarke Ingram) spoke briefly on "The Non-IDers," Board member Mike Hogan discussed "The Psychology of DXing," and 1973 ANARC Man of the Year Dr. Bruce Elving gave an unscheduled talk on FM-SCA along the lines of his VUD articles! Awards went to WTFDAer Glenn Hauser, selected by delegates as "North American DXer of the Year," and to Clayton Howard of HCJB, voted "International DXer of the Year," who received a standing ovation in accepting the award. More than \$200 was collected for the Handicapped Aid Program in an outstanding auction conducted by Kevin Mikell of WINDX. A grand time was had by most everyone, and thanks go to host club WINDX, ANARC Executive Secretary Dave Browne, and a host of speakers from member clubs for a very successful ANARC gathering this year!

MEANWHILE IN OREGON...as this issue goes to press, WTFDA's own 1977 Convention is drawing to a close in Portland. Early reports indicate attendance of from 30 to 35 members and a successful schedule of presentations; watch for full details and photos in next month's Digest! No WTFDA Board members could attend due to the distance, time and expense, but John Zondlo was able to conduct the club business meeting by telephone from Indiana. Hosts Frank Aden, Bill Block, Pat Martin and Paul and Dave Wardell deserve many thanks for conducting the first in what will hopefully be many Western conventions to come in our organization!

NOTES OF NOTE...Dave Janowiak's POLARIZATION series is slated to return in October; your editor currently has no time to transcribe the convention tape...Remember that all info on TV in North America and worldwide should be sent to editor Dave Pomeroy, and similar FM data to Bruce Elving. Please report!

73, Clarke for Pete, John, Mike, and Morrie

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## FEEDBACK

### WTFDA MEMBER SURVEY RESULTS

compiled by Clarke Ingram

One of the most effective ways for a new DX club administration to determine general opinions of their work and magazine is by a direct membership survey. This is usually more accurate than noting, for example, responses in a club's "Letters to the Editor" column—the usual function of this FEEDBACK section—because comments therein tend to be negative. (Let's face it: there are few who write to any responsive organization, praising it for a fine job—witness the US broadcasting industry!) Thus, it was in the interest of finding the true member opinion on WTFDA efforts and the VHF-UHF Digest that the new club "crew" one year ago decided to include postpaid questionnaire cards with the July, 1976 VUD.

The response was such that few of us on the Board of Directors could have anticipated it. In brief, WTFDA members rated Digest columns, on the average, 20 points higher than a figure established as "average"; many could find no major weakness in the club or its magazine, even though the question had been specifically asked; and not a single member thought the VUD worse than other DX magazines, nor the work of the current editor-in-chief and publishers to be inferior to that of previous staffs!

Now, the Board's major complaint regarding the survey: Of the 280 cards we included with individual VUDs (our membership has since jumped to over 320), only 121 were returned—a 43.2% turnout, by my calculation. As the person to whom the questionnaires were addressed (and who had to compile the results!), I'd like to thank these WTFDAers for showing interest in their Association. As for the 159 who did not respond, I find it rather difficult to contain my disappointment. Collectively, you have wasted \$14.31 in club funds by not mailing the postpaid questionnaires; and I am personally disgusted that as "members," you failed to take five minutes to express your opinions. Still, I don't feel that mandatory member participation is the answer to apathy. If you choose to be "subscribers" to WTFDA instead of active contributors, that is your privilege—but that choice benefits no one, including yourselves.

We were pleased, however, to note that only 19 (15.7%) of the 121 cards were submitted anonymously, with that option provided (these being mostly late arrivals who might not have contributed had we not "prodded" them in the VUD for the past year!) Your trust in us is appreciated, and we'll maintain that trust by not divulging names in this report--except in the case of some very positive comments about our club and magazine!

All percentages herein, unless otherwise indicated, pertain to the total of 121 questionnaire cards received. These percentages total to more than 100% in some cases, because a DXer's interests, club memberships, etc. may overlap.

Members were asked to provide their age and the number of years they have been in WTFDA. The results show the "average" WTFDAer to be 30.3 years old (which, notably, is a much higher figure than some other DX clubs!), with 3.9 years in our organization. 23 members (19.0% of the 121 responding) indicated membership in WTFDA for 7 years or more; as our club was but  $8\frac{1}{2}$  years old when the survey was conducted, we're flattered to have so many first- and second-year members still with us! (WTFDA is now approaching its Tenth Anniversary--and our January, 1978 issue will be one you'll never forget!)

VHF-UHF DX interests of the 121 participants broke down into these categories: Television - 97 members (80.2%) for an average of 9.5 years

FM Radio - 79 members (65.3%) for an average of 7.0 years

V-U Radio - 26 members (21.5%) for an average of 8.9 years

41 members indicated they'd been TV DXing for 10 years or more, and 19 for 20 years or more (undoubtedly the nucleus of AIPA members that formed the early WTFDA!). 20 indicated they'd pursued FM DX for 10 years or more, but only 5 had been active for 20+ years. VHF-UHF radio, being a relative newcomer, had 6 DXers active for 10 years or more, and 4 for 20 years or more. One member indicated no DX interest in the VHF-UHF bands.

Association members also indicated interest in BCB (AM) DX (75 replies, 62.0%), shortwave DX (53 replies, 43.8%), and amateur radio (28 replies, 23.1%). "Miscellaneous" interests-longwave, microwave, CB, FM-SCA, STL and LF/VLF DXing-comprised another 20 answers (16.5%). 17 members (14.0%) listed no interests outside VHF-UHF, or did not reply.

Asked for their membership status in other clubs of the Association of North American Radio Clubs (ANARC), the 121 WTFDAers provided the figures below. The specialization of each club is listed after its name.

NRC (BCB)	30 (24.8%)	ASWLC (shortwave)	5 (4.1%)
IRCA (BCB)	22 (18.2%)	CIDX (all bands)	4 ( 3.3%)
NASWA (shortwave)	15 (12.4%)	RADIO USA (all; now defunct)	1 (0.8%)
SPEEDX (shortwave, UT)	E) 9 (7.4%)	No other clubs/no answer	72 (59.5%)

55 members (45.5%) noted that they had joined another club before joining ours; 59 members (48.8%) said they had not. 7 members of the 121 (5.8%) failed to reply. Prior club memberships mentioned by 2 or more respondents are below.

IRCA	28 (23.1%)	NASWA	10 (	8.3%)	SPEEDX	4 ( 3.3%)
NRC	26 (21.5%)	AIPA	6 (	5.0%)	ASWLC	2 (1.7%)
NNRC	14 (11.6%)	CIDX	5 (	4.1%)	CDXC	2 (1.7%)

COLUMN RATINGS: Members were given a list of 23 columns which had appeared in the VHF-UHF Digest between January 1975 and July 1976, complete with data on editors and scheduled column appearances vs. actual appearances. They were asked to assign each column a numerical score between 0 and 100, assuming 50 to be "average," based on these criteria:

1. Editorial technique and general appearance of the column, regardless of

actual content;

2. Regular appearance of the column on its monthly or bi-monthly schedule; General interest or value of the information presented in the column. Digest columns finishing with better than a 70 rating are listed below; names of editors are provided in parentheses. Not surprisingly, the column which an overwhelming majority of members feel is by far the finest in our magazine ran away with the top spot:

1. FCC FM NEWS (Elving)83.69	7. DX SCOREBOARD (Ingram)74.01
2. BOB'S TEK-NOTES (Cooper)78.27	8. CENTRAL TV-DX (Draeb)74.00
3. MAILBOX (Zondlo)78.22	9. FCC TV NEWS (Pomeroy)72.30
4. PHOTO-NEWS (Alexander)77.46	10. WESTERN FM-DX (Wiseblood) 71.39
5. EASTERN TV-DX (Thompson)75.72	11. CANADIAN NEWS (ML & JJR)70.98
6. WESTERN TV-DX (Smith)74.60	12. STATISTICS (Hauser)70.39

Though we had to split ratings down to hundredths-of-a-point to obtain number rankings, over such a large scale (0 to 100) such minor differences mean very little. In fact, from a statistical standpoint, one could almost state that columns 2 through 8 were deadlocked. Still, these ratings provide indication of column popularity, however minute the margin separating any two of them.

A number of column and editorial changes have occurred in the Digest since the survey was distributed a year ago. The number of columns appearing in the VUD has been decreased from 23 to 16; of the above twelve, DX SCOREBOARD, CENTRAL TV-DX, WESTERN FM-DX, and CANADIAN NEWS have been merged into other columns and no longer exist as separate entities. Andy Bolin now handles the FM side of STATISTICS; the TV records remain unattached. Similarly, WESTERN TV-DX is under new editorship: that of Doug Everitt. Other changes and deletions took place among the 11 columns not listed above, but we will not list those here.

The high ranking of BOB'S TEK-NOTES -- a column which had appeared only 2 times in 18 months, and then only as reprints of past articles which didn't involve Bob Cooper directly -- shows member demand for technical articles perhaps even better than the lack of these being cited as one of WTFDA's major weaknesses (see later in this report). The many comments received by your editor and at HQ prompted us to adopt the "10% Rule"--a new club policy which requires at least 10 percent technical content in each VUD. We've also made past Digest technical articles available through the Reprint Service. Incidentally, Dave Janowiak's TECHNI-CORNER was not rated--because at the time of the survey, it had not appeared in the VUD since 1974.

Somewhat baffling is the high ranking of the DX SCOREBOARD column, a spinoff from STATISTICS which your editor handled from its creation in September 1974 to its return to its parent column in February 1976. The information therein may have been interesting, but I can't conceive of the column imparting such valuable information to the DX world to deserve ranking seventh! Whatever the reasoning behind member opinion of this column, I very much appreciate your vote of confidence.

Digest column editors can well be proud of their efforts, for not one column fell below the 50 mark designating the "average" column. As listed earlier, 12 columns managed better than a 70 rating, and only one column was below 60 (that column--which finished dead last and whose name we will not divulge-received a 59.16 rating). Thus, even the "worst" columns are above average! The average rating of all 23 columns is calculated to be 70.14--meaning that overall, Digest columns rank 20 points above what WTFDAers consider average! The HQ staff and I are impressed by this praise from the membership, and are pleased that our editors do such an outstanding job in your eyes.

PRESENT VS. PAST: In the next section of the questionnaire, we asked WTFDAers to compare the VUD to other DX magazines, this writer's (Clarke Ingram's) VUD work to that of previous editors-in-chief, and the efforts of the new publishing crew to those of the old staff. These comparisons were intended to give us a means to evaluate our work in relation to that of the previous directors, and to take necessary action if our efforts were ranked below the old staff's (which, because of club loyalties, was expected by your editor and which did not occur, as will be seen shortly).

Unfortunately, a number of respondents interpreted the purpose of these questions as being something entirely other than what we had intended. Gomments from one WTFDAer read as follows:

I am not answering the comparative portions of your questionnaire card because I think they are somewhat self-serving. I know your intent is good, and I really think you are doing an outstanding job, and as far as I am concerned, the publication is better. However, you are asking for a comparison between the work under your regime and that of people who are still in the organization, as far as I know, and I think this sort of thing serves no purpose. There may very well be some political stuff going on, but I haven't sensed it (neither have I --CWI) and I see no reason to compare your voluntary work with the voluntary work of others before you. I don't know Morrie Goldman or Gary Olson but, since the price was right, see no reason to say that their work was inferior to yours. It may very well be possible that Morrie and Gary were hated, and did a miserable job; you might very well be the savior of WTFDA. (Obviously, neither is true --CWI) I think even if this is possible that a less condemning approach of the past voluntary editors might be more tactful. If there are factions within the club, this just might not be the proper way to unify them. (If there are factions within the club, I have yet to hear about it --CWI)

So, please don't get me wrong. I have seen the publication improve since I have been in WTFDA. However, I don't always read all the articles, and frankly, have not associated the publication with any one individual until your regime. That in itself should say something for the active way you have gone about things.

The last issue (July 1976 --CWI) was excellent. Keep up the good work, and please try to understand my feelings on this.

Similar comments on this matter were received by your editor. These misinter-pretations notwithstanding, it is interesting to note that those who preceded us as editor and publishers (Morrie, Gary, and Don Ruland, among others) did not seem offended by our posing these questions--perhaps because they knew our reason for asking, and understood the improvements we would attempt regardless of the survey results. To be sure, all of us are working in the best interests of WTFDA. Denouncing those who preceded us would indeed serve no purpose.

Members were asked to reply to each of the questions asked--comparing editors, publishers, and magazines--with the phrases "much better," "better," "about

the same," "worse," or "much worse." Unfortunately, a number of respondents ignored or overlooked this direction, using terms such as "superior," "good," "outstanding," etc. as answers. We have tried to be objective in our interpretation of where such answers should fall in the established categories, the tabulations of which are listed below. Noncommittal answers given, such as "interesting" or "different," have been omitted.

Clarke Ingram's wo		New publishers' vs. that of old		VHF-UHF Digest other DX magazi	
MUCH BETTER	28	MUCH BETTER	19	MUCH BETTER	49
BETTER	56	BETTER	58	BETTER	26
ABOUT THE SAME	13	ABOUT THE SAME	21	ABOUT THE SAME	19
WORSE	0	WORSE	0	WORSE	0
MUCH WORSE	0	MUCH WORSE	0	MUCH WORSE	0
No reply	24	No reply	23	No reply	27

The results speak for themselves...we are all very flattered by your replies!

CLUB WEAKNESSES: Members were asked what they felt to be the major weakness of WTFDA, the VHF-UHF Digest, or both. The majority of answers were easily separated into definite categories. Many members stated they could not find any weakness, for which we are grateful; but a DX club cannot improve unless it knows its own faults!

The weakness most often cited by WTFDAers in response to the question above was a lack of technical articles in the Digest--another reason for our instituting the previously mentioned "10% Rule." In recent months, this void has been largely filled. Product reviews, construction projects, DX techniques, and propagation features were the types of articles most mentioned by WTFDA members as useful technical material. Another very frequent answer to this question was lack of member participation (apathy). Among the suggestions made to improve this situation were: clarification of reporting areas and column editors; explanation (if not elimination) of abbreviations; reduction of the number of columns/editors in the Digest; and projects and DX contests to involve more WTFDAers. In the year since this survey was taken, we have tried to improve these aspects of the Digest, with only the last item being voted down by the Board of Directors recently. Your comments (some of which are printed further on in this report) are always appreciated.

A common answer, though less frequent than the above two, was <u>late issues</u> of the Digest, a problem which has eased greatly since the new WTFDA staff has taken office, but which recurs from time to time as it does in virtually all volunteer operations. About this situation, one member wrote:

I've commented to John Zondlo in the past about turnaround time and he's explained the reason it is as it is. While it may be impossible to improve the situation without other unwanted steps, I think many members would be willing to pay an extra couple of dollars a year (bringing the dues to the same as NASWA) in order to find methods that would assure a bulletin for one month before the deadline for the next. I sincerely feel this is by far the most important change that could be made, and I hope it will be discussed very thoroughly...

To help reduce turnaround time would probably require a combination of changes including everything from the individual editors' deadlines to the method of mailing, but it shouldn't be impossible to at least make it possible for every member to have the bulletin in time to react before the deadline for the following issue.

Increasing WTFDA dues at this time (especially when our club is in the best financial condition in its history, even more so than in fall 1976) would be senseless; lack of funds does not delay VUD issues, nor would additional dues provide methods for preventing this. Neither can mailing methods be blamed; one can seal and label VUD issues only so rapidly, and the US Postal Service is a factor over which we have little control, even using first-class mail. Column deadlines were a contributing factor until late in 1976; now that editors fully understand what is expected of them and when VUD columns are to arrive at your editor's address, this has become much less of a problem.

So why, then, is the Digest sometimes late? Unfortunately, most of the blame lies with your editor. As a full-time college student, with what amounts to a full-time job at the college radio station (which post I recently resigned), I haven't always had the time to devote to WTFDA work when needed. Further, I am compelled to edit the VUD as a professional magazine (a quality which most all other DX "bulletins" lack), and have sometimes held back an issue when an article, column, or cover did not meet these professional standards. As most of you are aware, I am not one prone to stick a coverage map on the VUD cover. All Digest front covers during my editorship, with the exception of July 1976, were personally designed and prepared by this writer--something that no other DX club anywhere can claim! Also, all technical articles (and virtually all features in the VUD) are retyped and, if possible, updated and revised or rewritten by your editor. Occasionally, an editor will not meet spec with his column, and some reworking or a total overhaul will be necessary. Such things take time, and I admit I've always felt that delaying the issue a few days to correct the situation is better than leaving half-filled pages or poorly done features in the finished product.

On the publishing side, the situation is more consistent, probably because there are three workers in Indiana to the one here in Pittsburgh! Rarely, as in April, the finished product will be late because of delays in publishing. Sometimes there will be difficulty in "shooting" the VUD paste-up (photoing the pages for photo-offset plates), and Pete Oprisko will be obliged to visit our printer and trouble-shoot the problem. If, in the issue, there are photos to be "screened," this delays the Digest two days on top of any other problems. Usually, however, the printing job is done in about a week, from which it goes to John Zondlo and Mike Hogan for stamping, sealing, addressing, and mailing of the individual copies of the Digest. Of the 19 issues we've produced to date, only on a few occasions have we failed to deliver VUDs before the 20th (the traditional break point for "late" issues), despite many complications.

There are always unexpected problems—such as VUD deadlines coinciding with your editor's final examinations two semesters running, the seemingly endless deadlock in convention balloting in February, and the transit strike which crippled Pittsburgh in December, preventing your editor from attending class (let alone reaching downtown to pick up supplies for VUD work). As there have been (and may yet be) occasions on which deadline and quality must compete; I welcome your opinions on professionalism vs. strictly on-time issues. As I've noted, given a choice, I prefer not to sacrifice professional quality for time. It would be easy to deliver a small, unattractive product to your mailbox on time every month, but I like to think the majority opinion is reflected by WESTERN TV DX editor Doug Everitt, who writes:

When the VUD comes out looking as nice as the May issue, it's worth the wait. It's work like that which makes me proud to be a part of the WTFDA Editorial Team, and grateful to have such a professional Editor-in-Chief at the helm!

Along with your exams, I suppose the Transit problems have been bogging you down. Considering all your troubles, it's amazing you can even keep VUD going. (Not amazing, Doug, just slightly phenomenal, hi --CWI) Specifically, your recent cover arrangements have been more professional than any other DX publication I've seen. I have a feeling that this new professionalism, combined with all the publicity we seem to be getting, will boost membership far beyond the old record within the next few years. (Provided my successor has the same standards; I don't plan to be editor forever --CWI)

I'm surprised to hear about the (late issue) complaints...irregular, unprofessional VUDs would be easy to turn out in a day or two; it seems to me they ought to be appreciating the professionalism you've brought us...if they expect better, let the club hire somebody, and that's rather unlikely.

Just how dedicated is the WTFDA crew to their product? Suffice it to say that during one of the early panel discussions at the ANARC Convention (sorry, Jeff White!), this writer, John Zondlo, Mike Hogan, and WTFDAer John Winslow of Madison WI were in one corner of the meeting room, furiously stamping, stuffing and sealing copies of the July VUD for mailing. Consequently, the issues were mailed that afternoon, and were received at most locations by the 20th deadline. Meanwhile, publisher Pete Oprisko was back in Indiana, organizing the paste-up

and preparing for WTFDA's talk on "Editing and Publishing a DX Club Magazine", which convention host Jeff White of WINDX called "the highlight of the convention" and which has already garnered us several new members. That the interesting ANARC presentations would be sacrificed that morning for WTFDA work is, I think, typical of the attitude and dedication of the Board of Directors.

This writer and the folks at HQ are currently doing everything possible to see that the VUD is delivered on time (your editor is working overtime right now to make sure this issue is early enough), and we'll continue to work on the problem. Any comments or suggestions you might have regarding late VUDs are welcomed. Unfortunately, most of the ideas received through the member survey (increasing dues, for example, or hiring paid workers to produce the Digest) will not work or simply aren't practical.

Moving back to the survey results themselves, other club "weaknesses" cited by WTFDAers were <u>irregular columns</u> (primarily in terms of monthly appearance; we have since corrected this problem), <u>too-large DX reports</u> (which has also been remedied; compare this year's issues to 1976), and <u>small print</u> in the Digest (sorry, but you'll still have to bring out the magnifying glass to read Bruce Elving's FCC FM NEWS, hi!). Several members noted the poor photo reproduction in the VUD; we've had past problems in getting pictures "screened" well, and this difficulty now seems solved.

Other WTFDA weak points individually cited (no duplication of these answers):

"Club only is composed of a small fraction of active TV and FM DXers, gets almost no publicity among some of the most avid TV DXers: the VHF and UHF amateur radio operators." (Interestingly enough, not too long ago a sample mailing was undertaken to 50 or so "hams"; the results have not yet been tabulated --CWI)

"Lack of a column similar to NRC's 'Musings.'" (John Zondlo's MAILBOX column is supposed to serve this purpose; general remarks on just about anything can always be sent there. Comments on important club issues are welcomed in FEEDBACK --CWI)

"Occasional bickering in VUD (very non-professional) although this problem is not prevalent today." (True; controversy serves no purpose, though debate and discussion--even heated at times, perhapsis welcomed in FEEDBACK and elsewhere in VUD --CWI)

"The club appears to be dominated by a small clique of northern DXers." (Come, now. Perhaps I shouldn't have dignified this charge by placing it in print --CWI)

"Gearing of articles too much to experienced, veteran DXers rather than novices." (Yet another member accused us of catering to the beginner and asked for more involved technical features! I suppose one can't please everyone at once. We try to maintain a balance of "beginner" and "advanced" articles in the Digest --CWI)

"Lack of original incentive on the part of previous editors and contributors." (This member also notes that "the new publishing staff and editor apparently have renewed that original incentive." Many thanks for your kind words! --CWI)

One member claims WTFDA's main weakness is "a fixed board of directors and fighting for publisher" (?? The Board was changed only last year when the new crew took over, and there was no "fighting" for the publishing job; in fact, HQ had a difficult time finding someone for the spot!) This member suggests that "every so often-2 years?--a vote of 'yes' or 'no' to keep the board of directors should be taken. If vote is 'yes,' then another vote to decide which office, and then candidates and voting."

There were no questions about club government on the survey, but since this point has been raised, I'd like to discuss it briefly. WTFDA does not have a club constitution at present, and Mike Hogan is currently beginning work on one, so the question is made all the more important. Traditionally in our club, the Board of Directors has been composed of the editor-in-chief, publisher(s), and founders of WTFDA; time and again, members have supported the idea that "the people that do the work should make the decisions," fed by as much member input as possible, of course. The five Board members are

equal in power (at one point Ferdinand Dombrowski was the "President" of WTFDA, but this appears to have been a self-appointed title!), and each Board member has one vote in deciding club matters, with the majority ruling. This structure avoids politics, and does not draw egomaniacs or power-mad persons, for which all of us are very grateful; it has helped to keep WTFDA alive through crises which might have otherwise caused it to fold.

Now the suggestion has again been made that elections be conducted for WTFDA' "officers." For the record, as shown on the back cover, the current Board of Directors consists of Clarke Ingram (editor-in-chief), Peter Oprisko (Digest publisher), John Zondio (circulation manager), Mike Hogan (distribution manager), and Morrie Goldman (WTFDA's founder). These five (along with Bruce Elving and Gary Olson, who chose not to be on the new Board when appointments were revised last August) comprise all those currently doing administrative or other such work for WTFDA, with the exception of Digest column editors. Is there anyone who disagrees with this arrangement, or would deny any of the above members a position on the Board given that choice? Does any WTFDAer feel that better results would accrue if elections were to be held for the Board posts, and candidates selected regardless of who performs the editorial and publishing duties? I feel it is important that members express their opinions on this matter, because we wish to draw up our new Constitution in the best interests of WTFDA's membership.

From a personal standpoint, I feel that anyone willing to spend as much as two weeks per month ignoring virtually everything in order to prepare our magazine is definitely entitled to a voice in WTFDA matters. For example, L.would be considerably bothered if my Board position were removed from me while still editor-in-chief of the Digest. But should the majority of WTFDAers feel differently, I am open to their views, whatever they might be. Comments received here on this issue will be printed in later editions of FEEDBACK.

Apologies for not having room here to print  $\underline{all}$  comments received with regard to club weaknesses. This report has run far too long already!

IMPROVING OUR CLUB: As a sort of corollary question to the above inquiry as to WTFDA's weak points, members were asked how our DX organization could better serve VHF-UHF DXers. Since this, in many members' opinion, was correcting the problem stated as a club "weakness," there was much duplication; as might have been expected, the most frequent answers were including more technical articles in the Digest, increasing member participation and decreasing the number of late issues of the VUD. In recent months, we feel that much progress has been made in all three areas--most dramatically in the realm of technical material, where our new "10% Rule" has all but eliminated that void.

How do individual members feel WTFDA can better serve VHF-UHF DXers? By.....

- "...being less like a computer record of who got what, and being more readable. It's improved a great deal, but in many respects it's still a brag sheet." (Which is something we're changing; our view has always been that we publish a DX magazine, not a "bulletin" --CWI)
- "...cutting expenses--club dues getting too high each year, or so it seems. Go back to third class postage--I still get VUD late anyway." (WTFDA dues haven't increased since 1975, and are the lowest of any ANARC club publishing an offset magazine; as for late issues, the USPS is somewhat less predictable than the WTFDA crew... --CWI)
- "...publishing a <u>comprehensive</u> intro for newcomers. It could lower the dropout rate." (This is a long-term project we've had in mind for some time; volunteers are welcomed! Meanwhile, a revision of <u>Beyond Shortwave</u>, probably to be retitled, may be in the wings; the current supply is about exhausted --CWI)
- "...having two conventions a year: one in the East and one in the West." (This idea was considered during the almost hopelessly deadlocked convention voting this year, but was discarded; two conventions promote separatism, not club unity --CWI)
- "...utilizing paragraph summaries of DX rather than pure dull lists of loggings." (We'll tackle the DX report format question a little later on in this report, with other comments --CWI)

More answers to the question "How can WTFDA better serve its members?" By....

- "...promoting regional get-togethers in addition to conventions."
  (We'll be glad to do so in the Digest, but we first need the information; DXers and regional DX clubs sponsoring gatherings are invited to send details of their "get-together" to your editor for use in the VUD! --CWI)
- "...coming out with FM and TV stations' addresses like NRC Log."
  (Probably a worthwhile project, but a time-consuming one, and QSLing seems not as paramount here as in BCB DXing and SWLing. Comments? --CWI)
- "...keeping TV DX and News together in one section of the book and FM DX and News in another section. This would make it easier to read and would be better organized." (We have generally kept the two FCC NEWS columns together near the front of the magazine, and the two TV and two FM DX columns together in separate sections of the Digest. The TABLE OF CONTENTS eliminates much of the confusion as to which columns are where --CWI)
- "...(having) an annual or semi-annual question-and-answer column by editors and readers on the merit of products...and any technical questions." (Q&A columns are difficult for us to start because there seem so few technically qualified WTFDAers willing to contribute their time to answer member questions in the VUD. Would any of you like to dispel this myth? --CWI)

Other suggestions for better WTFDA service were: club equipment discounts, in which one member suggested we might form an agreement with CATV manufacturers for purchasing; a discount price for Winegard's AC-4990 UHF preamp already has been arranged by WTFDAer Larry Vogt and will be announced next month. Two proposed columns, a "letters to the editor" section and a "DX gear for sale or trade" column, have already been created; they are FEEDBACK and STATION BREAK, respectively. Several members suggested two Digests per month in the summer, something which is currently being very seriously considered by the Board! Another frequent requests was for article reprints from mimeo VUDs, but it has been decided to update these features for use in upcoming issues and include the revised articles in the Reprint Service, as the mimeo copies are of rather poor quality for Xeroxing. Long-time WTFDA members can thus expect to see some "classic" series of past years reappear in the Digest! One other suggestion which we'd like to see fulfilled is selling ad space in the Digest to increase club revenues. As you're probably aware, Handler Enterprises bought ad space in our June issue (in truth, it was an 8½" x 11" center insert), and we're encouraging other companies to follow suit. The more members we have, of course, the larger VUD circulation will be, and the more advertisers will be interested!

There you have some of the many member suggestions on how to improve WTFDA, and our apologies again for not having the space to print every one received. All have been considered, and all are very much welcomed and appreciated!

COMMENTS ON THE NEW VUD: We've meant for some time to print remarks received here with regard to what we like to call the "new and improved" VHF-UHF DIGEST. Since its inception in February 1976, and particularly with the advent of 10% technical articles per issue earlier this year, our VUD has been hailed by some as the finest DX magazine available anywhere—and the fine publications printed by other DX clubs extend that compliment even further! Though most comments on the Digest were not expressed to us in conjunction with WTFDA's member survey, this seems an appropriate place to present comments both pro and con. Of course, general member opinion of the VUD and some specific comments were printed earlier in this report, and will not be duplicated here.

Many comments received at your editor's desk (and those comprise the bulk of the material here; most remarks sent to HQ were printed in the MAILBOX column or never forwarded) were along the lines of "The VUD looks great; keep up the good work!" For these compliments, we thank such members as Frank Aden, Randy Dorman, Mike Dorner, John Ebeling, Paul Gaines, Glenn Hauser, Marty Lillie, Dave Pomeroy, Don Ruland, Ken Simon, Paul Traska, Robert Williams, and many others not mentioned (this list does not purport to be complete; much of what follows was tediously compiled from dozens of personal letters).

But what do WTFDA members think of <u>specific</u> aspects of the Digest? Some qualities were often praised, notably the increased number of technical articles and the new Table of Contents. Others commented on the well-filled pages and lack of "white space," or the improved regularity and appearance of the newly arranged DX columns. Here are some specific comments, along with some of the more lengthy general ones; unless noted otherwise, all are WTFDA members.

DAVE BROWNE (ANARC Executive Secretary): "The best of personal good wishes and lots of luck to you for continued success as Editor of WTFDA's excellent WHF-UHF DIGEST, which I surely am enjoying. It's a fantastic magazine-getting better and better with each issue under your inspired editorship. And I note with pleasure the increasing list of new members...You, Pete Oprisko, Morrie Goldman and the officers and directors are doing a fine job of dedicated leadership with good management and administration." (Which is shown nowhere more vividly than by the fact that we're in better financial shape now than ever before, and our membership rolls threaten to shatter the past record of 330. Thanks, Dave, and continued good work with ANARC! --CWI)

PHIL BYTHEWAY (former publisher, IRCAS DX Monitor): "I ought to mention that I'm receiving the WTFDA bulletin...(It's not a bulletin, Phil! --CWI) It is well put together and contains quite a bit of valuable information. There are a few things I thought you might like to know. The type in FCC FM NEWS that is small and narrow is pretty difficult to read, at least for me, and often times it is too light, which doesn't help much. (Yes, but Dr. Elving would have a 15-page column if the data were full-size, hi --CWI). Also, the EASTERN TV DX editor has a messy typewriter, as noted in a few issues received here. (Not really; the problem is more at the printing end, and in handling, where the nylon ribbon ink tends to smear on the eraseable bond that Bill Thompson uses --CWI) ... And now for the good news. I really enjoy the well-filled issues. You certainly don't waste space as (one club) does in (their magazine). Every issue is crammed with tips...I especially enjoy the pictures in almost every issue, and the abundance of logos and letterheads. You seem to have found a good printer (More on this later! --CWI) as the issues are very clear and not too light or dark...I also like the style of the page numbers, both being on the outside of the page and their readability." (As a DX magazine publisher, Phil, your comments are particularly appreciated. Thanks also to John Zondlo, who forwarded these remarks for reprinting here --CWI)

RANDALL CLARK: "Let's hope that Pete Oprisko can continue the nice color selection (for VUD covers) that he's been doing since I joined in June (1976)." (Yes, let's hope! Pete deserves thanks from all WTFDAers for his choice of colors, which have helped to make our Digest the "brightest" of all DX magazines, and for his clever "graphics" often found in the upper left-hand corner of the Digest cover --CWI)

JOHN COMBS: "Let me compliment you on the work you've been doing as editor of the VUD. The bulletin (wrong word, John! --CWI) has taken on a more professional quality with you at the helm. (You sound like Doug Everitt, hi --CWI) I dare say none of the other DX clubs' bulletins can compare! (And I dare say you're probably right! Thanks, John --CWI)

 $\overline{\text{DAVE COX:}}$  "Clarke, you're doing a GREAT job with the VUD. There has been a  $\overline{\text{marked improvement}}$  in the last three issues...The last VUD (October) was one of the best ever. Keep it up. I especially like the technical stuff." (I'm glad to hear you're enjoying the tech material; I consider it one of WTFDA's major selling points. Thanks, and keep up the good work with SFM --CWI)

MIKE DALTON: "I hope your efforts with the VUD have been fruitful! I for one appreciate your work to get the publication to appear with some regularity." (Yes, but it's starting to give me irregularity, Mike, hi --CWI)

DON ERICKSON (who belongs to all ANARC clubs): "I don't mind going on record as saying that the VUD is and always has been the best put-together bulletin in the hobby. (But it's not a bulletin, Don! --CWI) Only in recent times has SPEEDX come close to approaching WTFDA in quality of publication; none of the other bulletins begin to look as nice." (Now if we can just keep SPEEDX from learning there are other cover colors than yellow, hi! Seriously, I'd say both SPEEDX and NASWA's FRENDX are ample competition for our Digest in terms of appearance--and keep an eye on NRC's DX NEWS. --CWI)

More comments on the "new and improved" VUD from members and non-members alike:

BRUCE ELVING: "I sure like the new look of the VUD, and I think we have a better printer than before." (Yes, we do; Mr. and Mrs. Pape over at the "Big Red Q" have really bent over backwards for us in providing rush jobs when needed, and in saving club funds by their fair pricing. As Pete Oprisko said at the ANARC Convention, we were really lucky to find this "mom and pop" operation. They deserve a hand from all WTFDAers --CWI)

DOUG EVERITT (see also earlier comments, five pages back): "Congratulations on yet another great issue. It's nice to get the January VUD so early! I fully support the new "10% Rule." It'll be nice to see more tech workups... I notice that, once in a while, you vary the paste-up order of the columns. (The Table of Contents makes this possible with minimal confusion --CWI) I like that, as it leads to variability rather than routine. I also greatly enjoy Harry Hayes' drawings." (Members can also thank Harry for our "From the Staff" page --CWI)

WAYNE FITZGERALD: "I would like to both commend and thank you for your fine work for WTFDA. I can't imagine where you find the time." (Sometimes I wonder myself, Wayne, hi --CWI)

EDWARD SHAW (NASWA Executive Council): "WTFDA holds my admiration. I wish I had the time to devote to this phase of our hobby. Alas, SWBC got me early, and I now find myself knee-deep in administration of the club with Mac (Leonhardt)...Good luck on your advances in WTFDA. I can't say that NASWA has been hurting either." (So I hear; Dave Browne tells me you're well over 1400 now. Good work! --CWI)

DENNIS SMITH (WTFDA column editor from 1968-1976): "It looks as though WTFDA continues to be in good hands, and I will be looking forward to its many worthwhile articles by its many capable editors...Thank you for the great work you are doing for WTFDA to help keep it the dynamic forward-looking club it must be to survive as a healthy organization." (And thank you, Dennis, for all your efforts for WTFDA since its creation in late 1967. Our club would be a different organization today had you not become involved --CWI)

BILL THOMPSON: "The layout work in the VUD since you assumed the editorship has been superb! I hope you can keep up the great work. I've seen many photo offset printed technical publications that look amateurish in comparison to the VUD. Since you have assumed the VUD editorship, I have to admit that I am no longer reluctant to show it to my friends in amateur radio. Some of them look down on DX clubs in general as being too juvenile, pointing out the various controversies that many ANARC clubs get involved with as silly and pointless. (Too true, Bill --CWI) When I showed a copy of the VUD to one very avid VHF ham a couple of years ago, he laughed at what he considered to be an abundance of overspecialization, what with so many editors. He even wondered sarcastically why WTFDA didn't have a column on DXing garage door remote control transmitters! (Look back far enough, and you might find it, hi --CWI) I can say that I'm glad to be able to let him look at my VUD copies these days. The increased technical material...(and) the streamlining of the publication is most welcome here. Keep up the super work! (You too, Bill, as editor of EASTERN TV DX --CWI)

One set of comments received here concerning the "new look" of the VUD merits special attention. These remarks arrived here only recently (early July) and although the writer's name will not be revealed, he is a prominent WTFDAer and former VUD column editor:

I'm tired of so many people wanting the VUD to look "pretty" instead of being DX orientated (sic). By that, I'm talking about the Northern, Southern, and Western DX columns. (1) With the mandatory column form, there are so many DX related things being edited, it's not funny!

I see no way that one half of one line can be used to report all needed information such as call letters, frequency, state, city, stereo/mono, format, logos and distance. (2) The VUD's of '70 were far superior to anything you print now, because all the "chit-chat" was sacraficed (sic) for a "pretty" VUD. Using mandatory column form, there is no way to note when an Es opening begins or ends, or

(Continuing with comments on the "new look" of the VUD from a prominent WTFDA member and former column editor:)

even what the MUF was. (3) Also there is no way of reporting how many bursts you may have received in an hour during MS, how many seconds or minutes a burst may have lasted, or was it even in stereo. (4) Tr, Es, Au intensites (sic) are lost to fellow members, since your form does not allow room for these facts either. I would like just one reason why the column form is mandatory, instead of giving the members a choice of sending their reports in column form or paragraph form. (5)

If that's not bad enough, how can you have the nerve to edit true DXers' reports for "ZERO" mile DX? For example, the Northern (FM) DX columns of February and March issues both contain reports from (member's name deleted) logging his home town stations. forced to send my reports in mandatory column form, which I totally refuse to do, and then have these reports edited to make room for "ZERO" mile DX, this to me is the last straw! (6)

Members not acquainted with the use of "sic" are advised that it is used after misspelled words from the original text which have been printed intact. the above errors are the member's, not this writer's.

Here now are my replies to the above comments, cross-referenced by means of numbers placed after the phrases in the text to which I refer:

(1) The true column arrangement is Northern and Southern for FM DX, and Eastern and Western for TV DX; this member has his wires crossed!

(2) For an excellent example of the two-column FM format including all the elements mentioned, see Bill Feidt's report on p. 19 of last month's VUD.

(3) Bob Cooper and Pat Dyer have been indicating Es opening start and end and peak MUF reached for years--using the columnar TV DX format. FM should provide even more opportunity for this!

(4) Aside from the fact that such detailed MS info may mean very little to

most members, I can think of only a handful who have ever reported it

at all.

(5) One reason why columnar form for DX is mandatory? I'll provide four: The first and most obvious purpose is to reduce the volume taken by DX reports in the Digest, allowing more space for technical articles and other features. Witness the  $\frac{43}{2}$  pages of DX reports in the oversized 72-page August 1976 VUD vs. only 27 DX pages in this issue, one year later. Contrary to what some may think, the columnar DX form is more efficient and less wasteful of space than the paragraph format -- which leads us to point number two: reports submitted in the columnar form are far easier for our editors to compile and to edit, if necessary. The paragraph form leads to rambling and inclusion of unnecessary comments, and editorial axing of these superfluous remarks can only lead to antagonism between editors and reporters. Third, paragraph form is next to impossible to search through for format or other data on a particular station; the "jumble" of call letters with different information makes this extremely difficult to "plow through" (let alone read). And finally, the columnar format is much more attractive in print than the paragraph form; it makes for less formidable reading, and readability is one aspect of the Digest we are always trying to improve.

(6) Granted, the reports of local stations by the DXer in question should have been edited. But no distances were included by this member, and it is simple enough for a column editor to overlook such inclusion of "non-DX" stations. This is another reason why we ask all reporters to measure and report distances of DX stations whenever possible; it is an aid to our editors, and makes spotting possible record candidates

for the STATISTICS column much easier.

As far as I'm concerned, the suggestion that 1970's Digests were superior to today's issues invalidates this member's entire argument, because such an idea is patently absurd. Anyone feeling mimeographed issues to be more attractive than offset-printed product is urged to subscribe to NNRC, the CIDX Messenger, and any number of associate club "bulletins," and decide for themselves. Other than this, I refuse to dignify this point by arguing it; even the advantage of some technical articles, which the 1970 VUDs may have held over the 1974-1975 issues, has been wiped out by WTFDA's new "10% Rule."

John Zondlo 6617 Maryland Deadline: 15th

New Members: Dennis Ambrose D. Blemaster Linda Brodsky Brian Cartwright Gordon Draeseke John Grable Lew Guinn Jim Hopkins Michael Lapinski Earl McDonald David McLaren Mike Mitock John Pilger John Ruckert Bruce Shaw Norman Sorensen

Box 1 2532 Circle Drive 245-16 149 Ave. 106 Leila St. 1347 Santa Maria Ave. 11550 Paramount #24 1839 Lucille 29 Grandview Ave. 3065 Route 11 7/738-A Netson Loop 953 S. Beacon Ave. Los Angeles, CA 90015 RD #3, Box 292A Ligonier, PA 15658 3107 Georgetown Houston, TX 77005 953 S. Beacon Ave.

Bethany, ON LOA 1AO Newport Beach, CA 92663 Rosedale, NY 11422 Johnstown, PA 15905 Baywood Park, CA 93402 Downey, CA 90242 Los Angeles, CA 90026 Pitman, NJ 08071 LaFayette, NY 13084 415 S. Oxford Ave. #310
Route 2, County Line Rd. Rock Falls, TL 61071
975 Osborn Ave.
7738-A Nelson Loop
Fort Meade, MD 20755

Renewals: Richard Clark, Clinton Day, John Ebeling, David Egan, William Johnson, Nick Lombardi, Mark Lucas, Eldon Luoma, Dean Markoshan, Eric Strahan, Robert Williams, John Winslow.

Rejoin: Charles Zipser-c/o Courtney Lock & Hardware-2242 Jerome Ave.-Bronx, NY 10453

Address Changes: Randall Clark-West Virginia Rehabilitation Center-Box 325-Institute, WV 25112 David Egan-9 321 Jeanne Mance-Valleyfield, PQ J6T 5S2

Eric Strahan-Box 1277-Dania, FL 33004 Dr. Richard E. Wood-Department of Languages-Plymouth State College-Plymouth,

Renewals Due in September: John Anderson, John Basehore, Mike Bugaj, Robert Buta, Paul Caltigrone, Terry Colgan, Robert Curtis, Bill Dulmage, James Filler, Robert Fischer, Stephen Francis, George Greene, John Guiney, Glenn Hauser, James Moses, Wayne Murphy, Gordon Nelson, Kurt Nelson, David Parry, W. Ryan, Peter Sawatzky, Mike Scheel, Randy Schnepp, Richard Segalas, Tony Ward, Larry Weil, Michael Wimer.

Sorry, guys, LINDA BRODSKY is already spoken for (married, that is, hi). She's a social worker, a member of NRC, and uses a Realistic Pro 3A for VHF DX .

The other side of the BCB coin brings us IRCAN BRIAN CARTWRIGHT. He's a 17 year old student who DXs TV with a 1963 Zenith 24" black and white set.

GORDON DRAESEKE gives his DX interests as medium wave and shortwave,

along with TV-FM. He also belongs to NRC and NASWA.

As you can see by recent Mailbox columns, we've got new members coming out of the woodwork. That should make 20 year old carpenter JOHN GRABLE happy. He comes to us with an interest in monitoring local public service bands. His gear includes a CE tunable receiver and a Bearcat scanner.

Another outstanding BCB DXer joining us this time is JIM HOPKINS. He's one of the top arrangers of DX tests from BCB stations. Jim uses a Sony

STR-6055 for FM DX, and he's a member of both IRCA and NRC.

TV is the top DX interest for MICHAEL LAPINSKI. Equipment in his shack includes a Zenith color TV and a Winegard CW1000 antenna.

Communications World is where DAVID McLAREN found out about WTFDA. He's interested in the VHF, UHF, Aircraft, and Utility bands, and DXs with a Regency TME-8A aircraft receiver and Bearcat 101 and 210 scanners.

MIKE MITOCK DXs the BCB, SW and TV bands. His equipment includes a Sony TFM-8000W, a Pencrest color TV, Realistic Pro-7B scanner, and a Tennelac MS-1 scanner. Mike is a member of IRCA, NRC, and NOARS. Our

condolences go out to Mike on the recent death of his wife.

New member BRUCE SHAW is a student at the University of Pittsburgh campus at Johnstown. He's into shortwave, BCB, and TV DX, and is a member

of IRCA.

August 1977 WTFDA Mailbox

Tidbits..... A few words are in order for recent new members. First of all, we have Thomas Adams, who is a 30 year old probation officer. Gear in his DX shack includes a Kenwood 9600 receiver, an ICF 5900W, and a FRG-7 communications receiver. Thomas adds WTFDA to his club membership list, which also features IRCA, NRC, and NASWA.

Don Davis comes to us from the peach state, Warner Robins to be exact. He's primarily a BCB DXer and makes a living as a USAF technician and a TV

repairman.

Motor city member Leonard Jozwiak writes to tell us that his interests

include FM and BCB, and that he belongs to NRC and NNRC.

Robert Coodman has several topics to discuss: "To monitor TV video aurally, place an AM receiver next to the TV receiver. Tune to a radio channel which is (a) quiet, and (b) 150 khz ± a strong signal. When a picture is on, the flyback signal will beat with your radio, causing the radio signal to come in. The only trouble is that by my calculations, it's off by a factor of ten - (30 frames/sec) x (525 lines/frame) \$\infty\$15 khz; but it works nonetheless. TV and radio (and most other inventions) are older than you think. Long before Nipkow's disk of 1884 for over-the-air TV transmission, in the 1860's, in fact, an Italian inventor achieved some success in closed-circuit video. And wireless radio has been recognized for a decade by an act of Congress to have been the invention of an American dentist in the 1860's (see "The REAL Inventor of Wireless", Popular Electronias, about 12 years ago). And what's the cause of the garbage on some UHF TV receivers? They're shimmering ribbon-like features that move vertically and are more prominent on lower UHF channels. Seems to get worse with advancing age of the receiver."

David Egan has renewed his WTFDA membership, and has also renewed his interest in DX: "Well, I've decided to rejoin the club after all. I dropped out in April because I had so much to do I had no time to be involved in DX. Then, at the end of April, I moved to my new address. Somehow, when the first Es started coming through on my crummy rabbit ears antenna, I FOUND the time to get interested in DX again. It had been a very dry two years at my 92 Joron location. It was a particularly poor spot for reception. However, my new address is exactly one mile in north and south direction from lakes. my new address is exactly one mile in north and south direction from lakes and canals and about a mile and a half from water west of me. I live on the third floor of an apartment block with little or no buildings of consequence to my southwest. With only rabbit ears I have managed to log 7 or 8 new skip stations in this first month of Es season. Es is amazing here, building up through channel 6 regularly, and even the channel 7 frequency is built up with rolling bars on several occasions. This may be a solar cycle or something, or it may be my location. Whatever, I have resumed an interest and the time is being found for DX or DX-oriented

CB is proving a valuable aid to Clinton Day: "With the addition of a CB radio to my father's home entertainment repertoire, I find that his reception offers an often valuable guide. If he experiences skip conditions on his CB, chances are there could be something brewing on TV 2-6."

Charles Zipser belonged to WTFDA in 1975, and now he's back in the fold.

He runs down his DX equipment: "Antennas are respectively: a 7 foot Channel Master Dish (8 stories up), 9 element FM Channel Master on the same pole plus rotor; also, 600 feet of wire on AM and an amplifier for the first two

and a separate amplified loop for AM also."

Lots of material this month, eh? This is from Wayne Fitzgerald: "I would like to say that I am proud of being a member in WTFDA. Although I have neither the time or assets to be more active in the club, I look forward to my VUD each month and read it cover to cover! I do plan to raise my antenna to 50' this spring and purchase a new 12" portable TV to use just for DXing. Perhaps someone in the club can advise me of what might be the best brand of TV for DXing. At any rate, I enjoy your good work and hope you keep it up."

WTFDA membership jumped by 26 in May and by 13 in June....we now stand at 326 members as of the 3rd of July. California is the most populous WTFDA state with 32 members, the bulk of them in the Los Angeles area. The rest of the WTFDA top ten shows New York with 26 members, Ontario 20, Ohio 19, Illinois 18, Pennsylvania 17, Indiana 16, Michigan 15, Texas 14, and Florida

Contributing greatly to the rise in membership is a mailing made to over 700 members of IRCA and NRC asking them to take a look at WTFDA and join the club. The project is a resounding success so far, and we look forward to many more new members in the months to come. See y'all in September.....jz



Bruce F. Elving, Editor 18 1/2 East Fifth Street Duluth MN 55805

#### **New Station Grants**

Fl Boynton Beach \*88.7 (but one source says 88.9, so which?) 50000; 479'; g Moody Bible Inst. IL East Moline \*89.3 100000 h,v; 500'; a Moody Bible Institute IN Muncie \*90.5 Schools MD Elkton \*88.3 3000 h,v; 260° g MA Charlton (42-08-00; 71-57-30) \*90.1 10 watts High School MN Minneapolis \*90.3 10 watts: "Fresh Air"; granted over protest from Minnesota Public Radio (KSJN) that MPR could not effectively pick up KSJR \*90.1 Collegeville MN at the KSJN \*91.1 St. Paul studios for rebroadcasting. MS Centreville 104.9 3000 h.v; 300'/ MS Columbus 103.9 3000 h,v; 205' NE Lincoln \*89,5 10 Sunrise Communications-granted over the

protest of Omaha ch. 6 TV. [College NY Bracklyn \*90.9 10 Kingsborough/ OK Edmond \*90.9 10 OK Foundation PA Hollidaysburg (Altoona) 104.9 122 h.v; 12201 PA Lancaster \*90.3 g 1050 h.v; 88'

UT Ogden 95.5 100000 h,v; 680'; k MB Gods Lake Narrows 99.9 1800 w MB Manigotagan 101.3 154 w [CBC-CBW MB Oxford House 95.5 78 w (AM) re-MB Waasagomach 105.1 1700w layers] PO Brisay for "Camp Brisay" 100.5

520 w: CBFR 100.1 Radisson PQ relay PO Camp LG4 100.1 (near James Bay) 593 watts--CBFR (FM) repeater PQ Laforge 99.9 520 w CBFR repeater

Alta. Fox Lake 96.9 148 w [All CBC JeanD'Or, Alta. 102.5 52 w[relayers Alta. Red Deer 102.5 1560 w 103.5 1560 French

On Air and DX Ready

AR Arkadelphia KDEL"-FM" 100.9 3000 h,v; 961 CA San Luis Obispo KCBX -FM 90.1 3600 h,v; 1410', cj, SCA CO Glenwood Springs KGLS 92.7 3000 h.v: -300'; Stereo; adds SCA GA Gainesville WBCX \*89.1 10 [300] IL Chillicothe WCLL 94.3 3000 h.v; / IL Glen Ellyn WOCB \*90.9 5000 h.v; . \$tereo, soft rock

NY Dix Hills WHHJ \*88.9 10 watts /\$ ND Mandan KNDR 104.9 3000 h.v; 2901 OK Ardmore KRRO 92.1 3000 h.v: 210\*

Stereo, rk . SCA.

ITX Floresville KWCB 94.3 3000 h.v; 94' IX Marlin KLMT 96.7 1250 h,v; 200' UT Roosevelt KUHS \*90.9 10 VI Montpelier WNCS 96.7 400 h,v; 700'; \$tereo WA Richland KXDD 106.3 2960 (horizontal) -441 WV Buckhannon WVWC \*89.9 10 WV Wheeling WPHP \*91.9 10 (Calls. too) On air with Changes (selected)

IN Bloomington WFIU 34000 h,v (590') IN Crawfordsville WLFQ 103.9 920 h,v; 500'; \$ LA Alexandria KSLI 96.1 on with vertical MI Spring Arbor WSAE \*89.3 3100 h.v; 240' OH Gallipolis WYPC 101.5 35000 h,v; 350' OK Oklahoma City KKNG 92.5 98000 h,v; 900' TN Kingsport WKPT-FM 98.5 95000 h.v; 1260' VA Roanoke WLRG 92.3 20000 h,v; 2000\*

Multi-City Identifications Granted AL Decatur WRSA 96.9 adds Huntsville CT Brookfield WRKI 95.1 was Brookfield-Danbury now just Brookfield ID Caldwell KBXL adds Boise

IL Murphysboro WIAO 104.9 adds Carbondale MA New Bedford WMYS 98.1 adds Fall River MI Alma WFYC-FM 104.9 adds St. Louis MI GA Jesup WSOJ"-FM" 98.3 adds Ludowici GA PA Lancaster WNCE 101.3 adds York

IN Kingsport WKPT-FM 98.5 adds Johnson City and Bristol IN

TX Dallas KERA-FM \*90.1 adds Fort Worth VA Norton WNVA-FM 106.3 adds Wise VA WI Sauk City WVLR 96.7 adds Prairie du Sac WI

New Transmitter Installed--Stereo? NY Seneca Falls WSFW-FM 99.3

#### FM Translator News

AL Selma W288AG 105.5 \$, g (WPCS \*89.3 Pensacola FL rebroadcaster); A, new grant CO Leadville K276AJ 103.1 \$, m (KRD0-FM 95.1 Colorado Springs rebroadcaster): new grant ID Preston K272AB (not K272AA); 1-watt translator on air; from list supplied by KALL-FM 94.1 Salt Lake City UT: KALL-FM writes and says its 67 kHz is used for 20-30 Hz subaudible telemetry only: delete listing as SCA UT Brigham City 105.5 K288Al (not K288AA); KSL-FM 100.3 Salt Lake City UT translator UT Delta K296AB 107.1 (moves from Oak City), KALL-FM 94.1 ten-watt translator WA Seattle K283AA 104.5, \$, p (KISW 99.9 Seattle); granted over protest of KERI 104.3 Bellingham WA, which felt Seattle would lose 360', cj, share-time WEPS Elgin[360' KERI reception. KERI wanted them to apply for IN Batesville WRBI 103.9 1950 h.v; / a Class A channel; but no A channel available ME Portland WMGX 93.1 50000 h.v; 225 without interference, so a Class C channel granted by the U. S. Federal Communications Commission for this entity.) NY Stony Brook WUSB \*90.1 4000h,v;225 WY Evanston K288AA 105.5 (not K288AI); KALL-FM WV Bluefield WHAJ 104.5 83000 h,v; 1200 ° one-watt translator.

Apparent errors in the list of translators SC Honea Path WRIX 103.1 3000 h.v;300 supplied by KALL-FM are Circleville UI (onewatt) K298AE given for K292AE 106.3; K288AN

for K288AB Lyman and Fort Bridger WY (heard on the air over KALL-FM via skip announcing as K288AB), and Panguitch UT K244AH for K244AD. Omitted from the oral and written lists was K237AM 95.3 Tabiona UT, which may still be a construction permit and not yet on the air. All of this proves you can't even trust lists issued by stations themselves! \$, Stereo Resumed, or to be \$tereo

100.1 Selma AL may have quit stereo). CA Riverside KUCR \*88.1 | WA Yakima KYBO 98.3 CT Norwalk WLYQ 95.9, m FL Arcadia WOKD 98.3; k | WY Sheridan KROE-FL Ocala WMFQ 92.7

AL Troy WTSU \*90.1 (There's a report WTUN

MS Coldwater WVIM-FM 95.3 NJ Newark WHBI 105.9, ethnic; apparently resuming stereo after a long absence WA Spokane KMB1-FM 107,9

### Facilities Changes

AL Fayette WHKW 98.1 100000 h.v (350') AZ Tucson KXEN-FM 93.7 25500 h.v: 195' CA Bishop KIOQ 100.7 1000 h,v; 2960' 33, 75 mi CA Patterson KOSO 93.1 directional antenna. 1550 h,v; 1790' FL Green Cove Springs WKKJ 92.7 3001 (3000h,v)

FL Titusville WPIO from 89.9 to\*89.3 1600;115" IL Plano WSPY 107.1 300' (3000 h,v) IN Terre Haute WISU \*89.7 10500 h,v; 370\* LA Abbeville KROF-FM 104.9 300' (3000 h.v)

LA Crowley KHIO 102.9 450' (100000 h,v) LA Ferriday KFNV-FM 107.1 3000 h.v; 145" LA Laplace WCKW 92.3 51000 h,v; 440' MA New Bedford WMYS 98.1 47000 h.v: 5101

MI Coldwater WANG 98.5 adds vertical MI Muskegon WMUS-FM 106.9 50000 h.v (270') MN Golden Valley KQRS-FM 92.5 820' (100000h,v),

ro (from p) MN Richfield KDWB-FM 101.3 820' (100000 h.v) MN St. Paul KEEY-FM 102.1 820' (100000 h.v)

MO Mountain Grove KLRS-FM 92.7 295' (3000h.v) NY New York WKCR \*89.9 760 h,v; 1380' NC Charlotte WSOC-FM 103.7 98000 h.v (1040') NC Raleigh WCPE \*89.7 12500; 255' 19, 55 miles

OH Bryan WBNO-FM 100.9 300' (3000 h,v) + SCA OR Eugene KLCC \*89.7 9200; 850' 29, 67 miles PA Red Lion WGCB-FM 96.1 50000 h,v; 500' PA Tamaqua WZTA 105.5 1000 h\_v; 480' SC Columbia WMHK \*89.7 100000 h.v (420')

SC Rock Hill WVPR \*88.9 97000 h.v; 600' IX Abilene KFMN construction permit reinstated to move from 99.3 to 107.9 100000 h,v; 285' TX Brownwood KLSN from 99.3 to 104.1 25000 h,v; 2051; 20, 56 miles

UT Provo KBYU \*88.9 2910' (32000 h.v) VA Richmond WRFK \*106.5 adds vertical

WV Wheeling WKWK-FM 97.3 adds vertical WY Cheyenne KFBC-FM 97.9 claims to have v and be direction to the NE, but letter from a nonengineer was not too sure of these facts?

PR Rio Piedras WFID 95.7 50000 h,v; 800' PR San German WRPC 95.1 25000 h.v (1970') ON Kingston CKLC-FM 98.3 95500 h.v (5191) DN Ottawa 106.9 100000; 931' 44, 90 miles; News

#### SCA (67 kHz) News

CA Santa Maria KXFM 99.1 has SCA FL Fort Pierce WLQY 98.7 music FL Pensacola WJLQ 100.7 uses SCA only for lowlevel telemetry (3% injection); delete listing as an SCA station for meaningful purposes FL Panama City WGNE-FM 98.5; no SCA; uses "Q-98" non-ID; call letters' change coming? FL Tampa WUSF \*89.7 talking book

WFLA-FM 93.3 music

FL Vero Beach WGYL 93.5 music GA Albany WJIZ 96.3 has an SCA authorization, but they tell me they are not using it; has discontinued use of stereo generator, too; claims to have vertical.

GA Albany WGPC-FM 104.5 music HI Wainahu KULA 92.3 adds SCA

IA Clarion KRIT 96.9 teleprinter noise (+X) KY Hazard WSGS 101.1 adds SCA

KY Owensboro WSTO 96.1 no SCA

LA New Orleans WNOE-FM 101.1 music WWL-FM 101.9 teleprinter

noise; drops IB for the blind? MA North Adams WMNB-FM 100.1 music MT Missoula KYSS-FM 94.9 adds SCA NH Durham WUNH \*91.3 adds SCA OH Cincinnati WGUC \*90.9 adds SCA PA Boyertown WBYO 107.5 adds SCA SC Seneca WBFM 98.1 Mutual news relay TX Houston KUHF \*88.7 adds SCA TX Odessa KKKK 99.1 adds SCA UT Ooden KOPD 101.9 adds SCA

TX Dallas KMGC 102.9 seems to be gospel on SCA, but rock on main channel; may be \$tereo Non-IDers (selected)

PA Scranton WEZX 107.1 FM-107 ON Toronto CFGM-FM 107.1 Q-107

Formats/Networks

AL Decatur WDRM 102.1 m (from kr) AL Dothan WOOF-FM 99.7 k (not m) CO Oak Creek KFMU 103.9 k,m,c,j

#### Abbreviations

Music formats:

c classical k country

m middle of the road e ethnic n anspel p progressive rock

i iazz r rock oldies, top hits, etc. Network codes:

A ABC-FM

M Mutual B National Black N NBC

P National Public Radio C CBS I ABC Information S Associated Press Audio

> U United Press Audio Y ABC Contemporary

\$ is stereo

v is vertical polarization (while h is horizontal polarization)

Powers given are effective radiated in watts, commas omitted. Heights: feet above average

CT Westport WWPT \*90.3 rc; does live remotes NC Kinston WQDW 97.7 s (Drake---unusual for a high school station!

FL Jacksonville WJEE 107.3 m

FL Tallahassee WAMF \*90.5 s

GA Buford WGCO 102.3 Y reinstated GA Griffin WKEU-FM 97.7 no Mutual GA La Grange WWCG 104.1 k (from m)

GA Savannah WSGF 95.5 r (from k)

MI Fremont WSHN-FM 100.1 k (from m); station weak to tell for sure as heard by tropo

MD Baltimore WDJQ 104.3 r (not p) MA Boston WERS \*88.9 pi

MO Farmington KTJJ 98.5 k (not mk)

MO Jefferson City KJMO 100.1 r (not m) NJ Atlantic City WMGM 103.7 r (not m)

Chenault's "Supersoul"); B (National Black Network).

OH Hamilton WHSS \*89.5 pr OH Kettering WCXL \*88.7 a WKET \*89.5 r

OH West Carrol!ton WQRP \*88.1 g (WQRP and WCXL heard programming in unison; even giving combined id's)

OH Wilberforce WCSU \*88.9 ip PA Scranton WWDL 104.9 S (AP Audio)

TX Corsicana KCIR 107.9 k (from r) UT Cedar City KSUB-FM 92.5 CBS

WA Bremerton KBRO-FM 106.9 k (not kc) WA Seattle KYYX 96.5 r (from js) no \$

KISW 99.9 p (from r) KVI-FM 101.5 r (from k)

KZOK 102.5 p (from r) WA Tacoma KTOY \*91.7 rs; no \$tereo

WI Ashland WATW-FM 95.9 E, m WI Milwaukee WUMM \*89.7 S, P [(not mc)

BC New Westminster CFMI 101.1 rm / BC Vancouver CBUF 97.7 cm (from c) CBU-FM 105.7 cm

Call Letters

AZ Douglas 95.3 KAPR-FM AZ Sierra Vista 100.9 KTAZ"-FM" (from KTAN-FM)

AR Lake Village 95.9 KLVA

AR Salem 95.9 KSAR CA Palm Springs \*88.3 KPSH CA San Francisco 106.1 KMEL ("The. Camel\*) (from KQUP; p from k) CO Lakewood 107.5 KPPL (KLAK-FM) DC Washington 98.7

WMZQ (WMOD): k. "98-MZQ." LA Hammond

1107.1 WHMD

(WFPR-FM)

GA Valdosta 95.9 WLGA HI Hilo 97.1 KFSH ID Sun Valley 93.5 KSKI-FM

IN Fort Wayne \*89.1 WIPU NY Attica IN Rensselaer \*90.5 WPUM 101.7 WBTF KS Wichita \*91.1 KDSA

MA Holliston \*91.5 WHHB MA Orleans 104.7 WLOM (WVLC-FM)

UP (same programming as WCMU \*89.5 Mount Pleasant MI) MI Grand Rapids 95.7 WZZRM-FMM (WZZM-FM)

MI West Branch 105.5 WBMI MN Pine City 92.1 WCMP-FM

MO Poplar Bluff 95,5 KJEZ (KMMX); \$, m NV Las Vegas 92.3 KENO-FM (KTRI)

NC Elon College \*89.3 WSOE OK Goodwell \*91.7 KPSU [still K-103?)

OK Oklahoma City 102.7 KZUE (KAFG); / SC Laurens 100.5 WGXL (WLBG-FM); adds \$tereo, mr, | (dropping U) TN Brownsville 95.3 WTBG (WTBG"-FM")

TN Etowah 103.1 WMCC

----- O ...---GA Waveross WLTE 102.5 CBS ID Pocatello KSIH 94.9 U, music SCA IA Clinton KSAY 96.1 m (was kg); station being sold; format may change again IA Emmetsburg KEMB 98.3 U; \$; automated m IL Arlington Heights WWMM 92.7 r: (was j) IL Glen Ellyn WDCB \*90.9 ci--on air did not appear to have \$, but almost too

MI Midland WRCI 93.5 m (not r)

K.IFF 106.9 m (not k)

RADIO 102 FM . P.O. BOX 102 FRANKLIN, N. J. 07416

NJ Franklin WSUS 102.3 Mutual: drops UPI Audio: letterhead says stereo, but when heard was monaural, and no reporter I know of has ever claimed hearing stereo on them. NY Buffalo WPHD 103.3 rp (was r) NY Liberty WVOS-FM 95.9 S (AP Audio)

Call letters (Continued from last column) TN Germantown 94.3 WEEF (WGTG) adds \$tereo IX San Antonio 100.3 KZZY (KSAQ) still rock; MI Alpena \*91.7 WCML-FM, to be \$, cj, "KZ-100."

WA Tacoma \*90.9 KPEC"-FM" (KPEC-FM; has to do with the deletion of UHF television station KPEC)

#### Deletions

AZ Safford 94,1 Lebanon 92.1 Grant of Leadville CO translator (see previous page) leads to assumption that the "extra-legal" translators there are all deleted: "K219"91.7 (KXKX 95.7 Denver), "K292" 106.3 (KRDO-FM 95.1 Colo. Springs); "K299" 107.7 (KVMN 98.9 Pueblo).

The hiatus at WVOI 92.7 Tisbury MA continues, with no buyer for the silent station coming forth; FCC deadline nears for possible deletion of the station. An educational FM station may be applied for at Provincetown MA. The new WMGX 93.1 Portland is experiencing interference to WCSH-TV, ch. 6, with FCC allocations accused to be at fault. On p. 97 of the Atlas, calls WRLM given on 99.1 for Plymouth MA; should be WPLM. On the maps WMEA Portland ME should be 90.1.

Since its reinception on the air, WBAI 99.5 New York 'has become quite a bore. All the programs not having to do with gays or music revolve around the 'crisis'." (WBAI called me after I reported hearing them by skip, and I managed an FM Atlas plug on the air, unless I was bleeped out.)

"Licensed or not, WBJQ 88.7 Midland PA was heard on Thursday in Pittsburgh" by Clarke Ingram. Clarke sent a tape of WBJQ "89-Q," which is apparently unlicensed and heard about 25 miles away, indicating a power of at least 10 watts, and WBJQ sounds quite professional with r, jingles, etc. A new candidate for listing in the FM Atlas? WAVA-FM 105.1 Arlington VA said to be staying all-news.

"I enjoyed your first article on SCA. In a future article, why not list all the 'unknown format' SCA stations?" writes Nick Lombardi. To do so would take too much space; I once counted 600 unknown format stations. If you see a notation a station is "adding SCA" with no format given, this is an unknown format station and it would be nice if any reporter hearing the SCA on such a station would write in and share the format information with the rest of us.

The new WTMI Miami translator on 102.3 in West Palm Beach has a poor signal, even considering it is only 1 watt. I list its call as W272AB. It has verified for Ken Simon; Bill Elliott, chief engineer.

A new station in Panama on 90.9 is HOHM-FM Chitre (no power indicated) with 50-watt repeaters on 97.3 and 106.3 somewhere in the country.

Sheldon J. Swartz and Ken Simon are preparing by-frequency FM listings by state, giving formats. So far they've done Florida; they are moving right along and will be able to offer any state this way to any DXer for two 13¢ mint stamps. They are also working up an address list and can offer an exact address, including ZIP Code for any USA station for 13¢ postage. Write to Sheldon J. Swartz, 625 Wilmot #4, West Palm Beach FL 33405 for any of these listings or help with addresses.

WOKF 95.7 Clearwater FL, now with 100 kw, and WYNF 94.9 Tampa, appear to be battling competitively for the ratings edge, since their signals now largely overlap. WFPL \*89.3 Louisville KY is on with SCA carrier, but nothing else on SCA. Ralph Strobel in IN wondered, even with WFMS 95.5 Indianapolis off, he could never find WCLV Cleveland. "The Detroit station WLDM signed on and was very strong. Where is WCLV?" Methinks WCLV is directional with a null to the west, protecting WLDM. WCML-FM Alpena (xmtr Atlanta MI) expects to be on the air on 91.7 late fall, 1977.

One member has written Clarke Ingram to suggest that the FCC require proper IDs more than once per hour. "These past few skip openings and the stupid nonIDs used got me sort of frustrated," writes John Ebeling. "Maybe we could bombard them with letters or get up a petition." Good idea!

A MO writer claims KKSS. is announcing its St. Louis frequency as 107.5, not 107.7. "I would say that they are rather brave when they say 107.5 on the air, instead of 107.7," and he's sending my card to them telling them what their frequency should be.

KZUE 102.7 Oklahoma City also raised its height (900', 98 kw h, v); mid-ID as "the zoo" usually. KATT 100.5 considering moving up to 1300' for greater penetration into the Enid market.

The resurrected KOCN 104.9 Pacific Grove CA now m, mono; "FM-105." Off the air (and not coming on?) KKDJ 105.9 Fresno CA.

KJNP-FM 100.3 North Pole (Fairbanks) AK plans to be on by now with 24-hours' operating schedule. May be classical and easy listening. A lot of Alaska's FM frequencies are allocated to the military and not available for broadcasting. In Canada, "little or nothing has happened to the FM picture in Vancouver in the past year in spite of your comment that FM radio is growing rapidly in Canada. An all-news station on 96.1 is to be on the air this fall. An application for a new commercial station on 94.5 was turned down by the CRTC because in their opinion 'the proposed station would not add significantly to the diversity of programming already available from Vancouver area radio station.' I don't see how six FM stations (three commercial, three noncommercial) can provide much diversity of programming. I don't know what the CRTC is trying to do to FM radio in Canada, but I know that I much prefer and enjoy the great diversity of programming available from the U.S."

The director of WGGL \*91.1 Houghton MI, Read Burgan, has some quotable comments about stereo generators in an issue of the station's program guide: "As a general policy, any monaural program longer than ten minutes is broadcast monaurally. That means that your stereo pilot light will not light during such programs. When it does light up, however, you can be sure that the program you are listening to really is in stereo. Unfortunately, that is not the policy for the majority of FM radio stations in the country. Most stereo stations never turn off their stereo generators—not even for football games! "and he goes on to list several reasons, such as better fringe-area reception, for nulling \$. CONTRIBUTORS THIS ISSUE: Thomas Caswell, Dunmore PA; Mike Dalton, Tampa FL; John Ebeling, Bloomington MN; J. D. Everitt, Enid OK; Robert Fischer, Fairbanks AK; Ted Fleischaker, Louisville KY; Bruce Goldsen, Georgetown CT; Chas. Heffelfinger, Tampa FL; Jim Hughes, Mt. Pleasant MI; Clarke W. Ingram, Pittsburgh PA; Nick Lombardi, Atlanta GA; Doug Lord, Vancouver BC; R. E. Lyons, LargofL; Don Mayer, II, Memphis IN; Richard Noelke, Washington MO; Rod O'Connor, SW Harbor ME. Perrin, Wells ME; Rick Samford, Burnet TS, Lennis R. Scheline, Kingsburg CA; K. R. Simen, W. Palm Beach FL; Andy Smith, Harrisburg PA; Ralph Strobel, Moncie IN; Sheldon J. Swartz, W. Palm Beach FL; Pete Taylor, San Francisco CA; Don Voegele, Stockton CA; Dr. Richard E. Wood, who's moving to PlymouthNH.

#### INTERFERENCE FROM ANTENNA MAST AND GUY WIRES

One member asks about the possible changing of antenna characteristics, such as front-to-back ratio, directivity, or impedance because of metal guy wires or supporting mast. He notes that many DXers seem to favor nonmetallic supports for their antenna systems.

Antenna characteristics are, normally, figured in "free space." This means without influence from surfaces that could affect antenna characteristics or modify the signal from a "test transmission." Metallic objects near the antenna can influence the vertical and horizontal patterns; the question is how much.

Obviously, aluminum-sided buildings, water towers, high tension lines, and even other TV masts can cause ghosts by delaying a portion of the received signal. This does not mean that antenna characteristics have changed. However, if located within a few feet of metal gutters, metal roof, or even a shingle roof with blanket insulation and accompanying aluminum vapor barrier below, antenna characteristics will change. Prudent placement of mast or mast height overcomes this problem. (If you want to delve into the problem a bit more, some antenna books use a rule of thumb such as mounting antenna one or two boom lengths above any surface beneath to insure correct pattern. Actually, this rule is rather vague. Wavelengths involved and antenna type are the parameters that must be considered, but boom length seems to be the guide line used.

But, you always have the mast itself, with guy wires close to the antenna, unless you use a non-guyed mast. And this must have a slight effect on impedance, or directivity, in both planes because the metal becomes a part of the receiving system. However, any attempt to eliminate this by nonmetallic hardware seems like a waste of time. The possible improvement is so little that I don't think it's worth the bother.

While on this subject, one thing has bothered me about the design of some UHF parabolic antennas. I'm referring to those where the vertical mast support lies between the dish and transmitter. This mast probably has more effect on antenna pattern and impedance, but what can be done? A nonmetallic mast would eliminate this, but how about strength? One thing I know for sure: After hanging on with one hand while trying to balance and drop into the rotor one of those 7-foot dishes and mast in even a mild breeze, I will never consider anything less than the strongest support for these monsters. In fact, I had to lower my Finco 7-footer (on a sectioned telescoping mast) at my old address for the winter and doubled the guy wires, because I just can't see myself going round and round again with the insurance company explaining how wind and ice caused the system to tumble down!

FOLLOW-UP: Rod Luoma notes that 300-ohm type traps for VHF in the UHF line (Techni-Corner, December 1976) will attenuate at harmonics of the fundamental; therefore, certain UHF channels would be attenuated also. This is, of course, correct. For example, a T-line trap for ch 5 video (77.25 MHz) would attenuate also at 540.75 MHz (ch 25) on the seventh harmonic, 618 MHz (ch 38) on the eighth harmonic, etc. So be alert for this.

In fact, any time you connect a trap, booster, converter, etc. for a primary function, see what influence it has on all channels. For example, disconnecting a low band trap like the old Channel Master models (which have a specified 5 dB insertion loss) might provide just enough signal increase to ID a weak high-band station or low-band station that doesn't need the trapping.

# FM DX NORTH



Fred Nordquist 7945 Boxford Road Clay, NY 13041 Deadline: the 10th

The month of June and the 1st week in July has produced an unusually high occurance of E-skip (Es) openings into the FM Band up here in the North, as evidenced in the ensuing reports. Es was noted on the following days: June 4-6, 8-12, 14, 16, 17, 19-22, 24, 25, 27-30; July 1-4, & 6-8. Of particular interest was Peter Sawatzky's reception of Northern Manitoba stations on 6/9. It appears that a lot of us FM DXers have fattened up our log totals on this season's copious Es DX. So let's send in our updated totals to Andy Bolin's STATISTICS Column. It appears that so far only one reporter (Fred McCormack) has received double-hop Es this reporting period; occuring on 6/5 to Florida. Very little tropo was noted, probably due to the fast moving weather systems across the Northern states & Canada.

Now to the reports:

John Ebeling - 9209 Vincent Ave. So Eloom	
0/5 Es	6/14 Es
354 91.5 KIPC NM Albuquerque, classical mx	1126 103.5 WEZL SC Charleston, rock music
6/8 Es	1128 102.5 WKTM SC Charleston
.730 89.7 KGBH MA Boston	1130 100.1 WSCQ SC West Columbia
.731 90.3 WAMC NY Albany	1400 91.3 WLTR SC Columbia, classical music
.739 90.7 WTCC MA Springfield, NX, temp, ID, r	1600 94.1 WTOC GA Savannah, CBS news
.742 92.9 WBOS MA Brookline, music on SCA	1600 95.5 WSGF GA Savannah, rock, FM-95
.745 99.1 WPLM MA Plymouth, MoR, mx on SCA	1610 94.3 WSNT GA Sandersville.Sentury-94 NX
753 98.3 WHAI MA Greenfield, baseball game	1615 88.9 WMEW TN Chattanooga, gospelmusic
756 101.7 WLYN MA Lynn, country music	1620 94.9 WPCH GA Atlanta, MoR
757 100.1 WMNB MA N. Adams, MoR. mx on SCA	1624 92.1 WBLR SC Batesburg, rock, mx of SCA
804 91.5 WJUL MA Lowell	1630 107.3 WJEE FL Jacksonville, MoR
	1630 102.5 WLTE GA Wayeross, country music
824 88.9 WERS MA Boston, progressive	1647 98.1 WQHL FL Live Oak, MoR
845 96.7 WTSA VT Brattleboro, MoR	1649 98.3 WFAV GA Cordele, country music
900 90.9 WUHY PA Philadelphia	1700 101.1 WAFT GA Valdosta, gospel music
1900 96.1 WSRS MA Worchester, MoR	1708 92.1 WETR GA Carrollton, rock
6/9 Es	
	1720 97.7 WPUR GA Americus, Braves baseball
608 106.7 KAZY CO Denver, rock and ads	1800 91.5 WFSU FL Tallahassee
.610 94.9 KAIR AZ Tuscon, MoR	1830 95.5 WTVY AL Dothan, country music
.650 92.7 KGLS CO Glenwood Springs,	1835 99.7 WOOF AL Dothan, k, Mutual NX, mx SCA
	1840 92.3 WKLH AL Montgomery, rock, mx on SCA
state for me.	6/20 Es
730 98.9 KANR MT Great Falls, MoR	1930 92.9 KSPZ CO Colorado Springs, rock
.748 89.1 KUFM MT Missoula, news	1959 88.9 WMBW TN Chattanooga
5/12 Es	2014 94.9 WPCH GA Atlanta
.030 92.9 WYZZ PA Wilkes-Barre, Mutual news	6/21 Tr
.038 89.5 WITF PA Hershey, classical music	1700 98.3 KEMB IA Emmetsburg, MoR, UPI news
.629 95.5 KRFM AZ Phoenix, MoR	6/21 Es
.632 97.9 KUBD AZ Phoenix	1715 92.3 WDBO FL Orlando, MoR, music on SCA
.659 91.5 KMCR AZ Phoenix	1746 93.3 WFLA FL Tampa, MoR, music on SCA
707 93.3 KDKB AZ Mesa, rock music	1800 107.3 WWBA FL St. Petersburg, non-ID"BAY"
829 88.9 KBYU UT Provo, classical music	1810 104.7 WRBQ FL Tampa, Q-105, rock
	A1830 91.5 WPRK FL Winter Park, classical mx
	T6/25 Es
error on one of last month's stations: KETR	
commerce, TX should be 88.9 (was listed as	2102 92.3 KREX CO Grand Junction, MoR
39.9 by a slip of the finger). New stations	2137 92.3 KRST NM Albuquerque, rock
nderlined.	2145 94.9 KBRE UT Cedar City, MoR
lod O'Connor - P.O. Box 72 - Southwest Harbon	
5/29 Tr	6/11 Es
230 CHFX 101.9 NS Halifax, dir. to no.7(250	)1130 WJMT 93.5 WI Merrill, Trinity Luth. Ch.
235 CBH 102.7 NS Halifax, QRMing WGAN	1132 WAYL 93.7 MN Minn-St. Paul, beaut. whale
/6 Es	1134 WSPT 97.9 WI Stevens Point, (1150)
2000 KNWS 101.9 IA Waterloo, "good nx radio"	1135 KDWV 101.3 MN Ninn-St. Paul, (1250)
2005 KSEZ 97.9 IA Sioux City.(1375)*	1140 KCLD 104,7 MN St. Cloud. (1180)
007 KKEZ 94.5 IA Fort Dedge. (1265)*	1141 KSTP 94.5 MN Minn-St. Paul, (1250)
*(Please note corrected	6/19 Es
distances, Rod - fjn)	
000 W. ove of 0 to to 0 7 11 (41.00)	<ul> <li>WDBO 92.3 FL Orlando, EL, (1300)</li> <li>WJAX 95.1 &amp; WKTZ 96.1 both FL Jacksonvill</li> </ul>
	( 'MIAY US 1 P. WITTO OF 1 PARTY TO 1-1

FM-DX NORTH August 1977

		CHARLEST IN											
						Ave Buffalo. N							
	Tr					Ellwood City	6/14	Es					Commerce
5/19						Cleveland							Dallas
				99.9									Keene
						Cleveland							Dallas
						Cleveland							Denton
				103.7									Lookout Pt.
						Linesville							Windsor
						Akron, ex-WCUE							Fayetteville
				89.1									Okla. City
5/21						Guelph			1830	KOSU	91.7	OK	Stillwater
5/23						Toledo			1901	Unid	101.5	IDe	ed as "K-101"
5/25						Marquette	6/20		1645	Unid	89.1	801	unded like ZHM
						Mt. Pleasant			2140	KWGS	89.5	OK	Tulsa
						Dearborn	6/21						Amarillo
5/27						Cleveland	١.						Joplin
						Toronto (CILQ-fjn	)6/22						Denver
						Ashtabula			1214	KLIR	100.3	CO	Denver
5/30	Tr	0110	CECK	107.5	ON	Kingston	6/30		1830	KERA	90.1	TX	Dallas
		0130	CKLC	98.3	ON	Kingston			2130	WPCS	89.3	FL	Pensacola
5/31		0300	WDET	101.9	MI	Detroit	7/1		1145	CKO	99.1	ON	Toronto (new)
		0310	WDRQ	93.1	MI	Detroit	7/2	Es	1900	WUSF	89.7	FL	Tampa
		1000	WRIF	101.1	MI	Detroit	7/3		1320	WTSU	90.1	AL	Troy
		1100	WLDM	95.5	MI	Detroit	ACTION NOT	Tr	1914	WCAR	92.3	MI	Detroit
6/5	E5	0955	KXCV	90.5	MO	Maryville	COURS !	Es	2030	KDBS	100.3	LA	Alexandria
		0956	KCFR	90.1	CO	Denver	7/4						Greeley
6/6		1030	ZBM	89.1	HM	Hamilton	100000						Dallas
		1130	KCSC	90.1	OK	Edmond			1800	KPAT	97.3	SD	Sioux Falls
		1800	KSJR	90.1	MN	Collegeville	7/5	Tr	0000	WINCO	97.5	NY	Watertown
		1811	WOI	90.1		Anies			0200	CKMP	94.3	PQ	Montreal
		1948	KUSD	89.7	SD	Vermillion							Syracuse
						Wichita	Total	L:					Prov. : 2, For. : 1,
						Belcourt			Educ .	: 62	All	abo	ove sta. new to log.
Thus	far						cover	ber	up at	ny of	my loc	als	vet. or staved very

Thus far the E-skip has been fair; it hasn't covered up any of my locals yet, or stayed very long into FM. Too bad the E-skip didn't get into FM on 6/9 when I had double hop on TV. This report with 60 new ones, is pushing the log fast. 73's -- Paul.

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<u>Bill Dulmage - R.R. 3 - Colborne, Ontario KOK 1SO</u>
5/17 2133 WEZO 101.3 NY Rochester | 5/19
                                                         2230 WWOL 104.1 NY Buffalo
        2200 WBIV 107.7 NY Wethersfield
                                                         2300 CFCA 105.3 ON Kitchener
        2221 WMJQ 92.5 NY Rochester, ex-WNWZ 5/20
                                                         0107 CBCK 107.5 ON Kingston
        2300 WNCQ 97.5 NY Watertown
                                                15/22
                                                         1258 WHFM 98.9 NY Rochester
        2305 CHSC 105.7 ON St. Catherines
                                                         0107 CBL
                                                                     94.1 ON Toronto
        2210 WPHD 103.3 NY Buffalo, ex-WYSL
                                                         1355 CILQ 107.1 ON Toronto
Veries received: WBIV-v/1, WMJQ-v/1, WNCQ-v/1, CHSC-v/c & v/1, and CHL-v/c (Tom Yingling
would very much appreciate receiving details of these verifications for his QSL Corner
column. Glad to receive your report, Bill --- good luck in your FM DZing.-fin)
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Remember to send your UNIDs to Frank Aden, Jr. for inclusion in his C.C.I. (Unidentified DX) Column, if there is enough information for other DXers to solve them -- fjn.

August 1977 FM-DX NORTH Fred McCormack - Des Lacs, ND 58733 (CDT) Eqt: Receiver - Heathkit AR-1500. Antenna - JFD 10-element log-periodic type. 6/6 Es (continued) 5/13 Tr 1604 WRKY 103.5 OH Steubenville, (1165) 1604 WRXL 102.1 VA Richmond, XL102, (1415) 1300 KMRS 95.7 MN Morris 5/14 Tr 1614 WFOG 92.9 VA Suffolk 96.9 SK Regina, CBC-FM \$ (205) 0100 6/4 Es 1617 WPLZ 99.3 VA Petersburg, "\$99 Please" 1619 WVHR 101.3 VA Hampton 1958 KSNS 96.1 LA Lake Charles 2019 WCEW 92.3 LA Laplace, country, (1360) 1745 WIFI 92.5 PA Philadelphia, "Yi-Fi"(1420) 2022 KFRA 105.5 LA Franklin, rock, (1380) 1930 WGEI 101.3 DA Carrello De 2030 KHCM 104.1 LA Houma, (1410) 2032 WQXY 100.7 LA Baton Rouge 1934 WNYE 91.5 NY NYC, (1445) 1938 WRVR 106.7 NY NYC 1940 WQSB 105.1 AL Albertville, (1245) 91.7 TX Dallas, (1100) 2100 KVTT 2105 KRMD 101.1 LA Shreveport, NBC 2105 KRMD 101.1 LA Shreveport, NBC 1953 WENN 107.7 AL Birmingham, rock, (1270) 2102 KCHU 90.9 TX Dallas, bi-lingual (1100) 2000 WERC 106.9 AL Birmingham, rock 2112 KJVC 92.7 LA Mansfield, (1195) 2002 WVOK 99.5 AL Birmingham, rock, K-99 2005 WCIL 101.5 IL Carbonville, (930) 6/5 Es 0845 WSFL 106.5 NC Bridgeton, super SFL(1545)2014 WNDA 95.1 AL Huntsville, (1210) 2016 WHKW 98.1 AL Fayette, rock, (1230) 0855 WMPR 88.1 SC Sumpter 0855 WHPR 88.1 SC Sumpter

1002 WINZ 94.9 FL Miami Beach, (1935)(11-fjm)2022 WQEN 103.7 AL Gadsden, Q-104, (1270)
1147 WHTB 92.7 AL Talladega, \$93, (1300)
1200 WEHM 90.3 AL Birmingham, NPR, (1270)
1205 WQEZ 96.5 AL Birmingham, (1270)
1205 WQEZ 96.5 AL Birmingham, (1270)
1307 KTDY 99.9 LA Lafayette, (1345)
2022 WQEX 98.7 TN Bolivar
2042 WKRA 92.7 WS Holly Springs 1331 KAMU 90.3 TX College Station, (1345)
1334 KMMK 95.3 TX McKinney, rock
1343 KCMM 95.1 TX Victoria, MoR
2043 WQUD 104.5 TN Memphis, Quad-104
2045 KFIN 107.9 AR Jonesboro, K-Fine, (1020)
2057 WKEB 100.9 MS West Point 1358 KCBI 89.3 TX Dallas, (1100) 2100 WKNO 91.1 TN Memphis 2103 KLRE 90.5 AR Little Rock, (1050)
2113 WKMX 106.7 AL Enterprise, rock, (1430)
2118 WSJC 107.5 MS Magee, country music
2119 WDEN 105.3 GA Macon, country music (1415) 1400 KLTD 99.3 TX Lampasas 1402 KMCS 98.3 TX Gatesville 1403 KTXN 98.7 TX Victoria 2118 WSJC 107.5 MS Magee, country music (1416 KPLE 104.9 TX Temple 2119 WDEN 105.3 GA Macon, country music (1418 KWKQ 107.1 TX Graham, Easy Listening mx 2125 KREB 106.1 LA Monroe, country music 1424 KTON 106.3 TX Belton 2132 WKOZ 105.1 MS Kosciusko, country music 1424 KTON 106.3 TX Belton 1429 KIXS 93.3 TX Killeen, rock music 2138 WLMS 100.7 MS Greenville 1443 KLUR 99.9 TX Wichita Falls, country mx 2147 WLIN 95.5 MS Jackson, (1250) 2159 WLAG 104.1 GA LaGrange, country, (1355) 6/6 Es 2202 KTRM 99.9 NM Clovis, rock 0843 WCUP 100.3 GA Tifton, \$100, (1495) 0844 WZOT 107.1 GA Rockmart, (1300) 2243 WRFS 106.1 AL Alexandria City, (1330) 0856 WULA 92.7 AL Eufaula, AM/FM, (1420) 0935 WSSR 91.9 IL Springfield, (830) 6/16 Tr 2345 CBWV 97.9 MB Brandon, CBC AM, (130) 1000 KWJS 94.9 TX Arlington, gospel 6/17 Tr 1003 KLLS 94.3 OK Okmulgee, (920) 0005 105.3 MB Baldy Mtn, CBC AM. (245) 1010 KCRV 103.1 MO Caruthersville, (1030) 6/24 Tr 1800 KNDR 104.9 ND Mandan, \$ Easy Listening 1031 KTYL 93.1 TX Tyler 1032 KSFA 92.1 TX Nacogdoches 6/25 1115 KWHW 93.5 OK Altus, (950) 1145 KFMN 99.3 TX Abilene, rock 0105 KCGG 100.3 SD Rapid City, KG100, rock 6/25 Es 1215 KCOT 104.7 TX Lamesa 2135 WAFB 98.1 LA Baton Rouge, rock 1217 KWMJ 103.3 TX Midland, Easy Listening | 2207 KANW 89.1 NM Albuquerque, (945) 2210 KMUL 103.1 TX Muleshoe, rock 1554 WMET 88.3 OH Marietta, rock music 1556 WKEZ 95.7 VA Norfolk 2230 XHEM 103.5 CH Ciudad Juarez, \$103,(1180) 1603 WWST 104.5 OH Wooster, (1090) Only new loggings are listed since thay are representative of all the skip openings noted. A very good weekend and a few loggings on 6/25 produced 88 new Es loggings. 73, Fred.

Joseph Smith, Jr. - 196 Ackley Avenue - Johnson City, NY 13790 (Times in GMT)

Eqt: McIntosh MR 78, CM 4408 @46' (-492HAAT), 75 ohm 7 aad-in, U-100 rotor, No traps/boost.

6/14 Es 1714 KITM ??.? TX Dallas wx | 6/14 Es 1753 KSMU 90.1 MO Springfield (MO#1)

1720 KREB 95.5 OK Sallisaw | 1754 KTEN 93.3 OK Ada

1740 KVID 92.9 TX Wichita Falls | 1800 KAFM 92.5 TX Dallas

1743 KWEN 95.5 OK Tulsa | 1801 KSYN 92.5 MO Joplin

1751 KXXY 96.1 OK Oklahoma City | 6/29 Tr 1704 WFLS 93.3 VA Predericksburg

As of July 1st I received 433 stations and hope July will have more Es than June had.

Good DX to all -- JSJ.

Michael L. Hogan - 9224 Cottage Grove Ave. - Highland, IN 46322



Reporting period: 6/14/77 to 7/3/77. Phone: (219) 924-2361
Total stations: 165, with 7 by Es. 49 new stations were logged in the reporting period. Since 1/8/77 94 new stations have been logged. Log totals also include 35 in the Educ. Band, 10 states, and 1 province. By the way, a word on my equipment: The Panasonic RF0877 was purchased for less than \$70. I am beginning to believe that patience and persistance are the key to successful FM DXing, and not necessarily expensive equipment. I'm very sure the Antenna that I'm using is a big factor; but knowing when, from where, and how to log those elusive stations are the key ingredients.

Out of the 100 FM channels, only 4 show an absence of a logging in my log. I Believe that dollar for dollar my set-up can challenge many other installations. Well-enough for my scap-box. Here are my loggings this reporting period;

```
6/14
                                               6/19
1128 WHIO 99.1 OH Dayton, Zephyr spot
                                               1059 WGER 102.5 MI Bay City-Saginaw, ID
2100 WRSQ 104.9 IL Geneseo, Q-105 ID
                                               1158 WNLW 101.3 MI Grand Rapids, "Mellow
6/15
                                                                  Music FM 101
0600 WMRI 106.9 IN Marion, NX w/Ken Walker
                                               6/21 Es
0600 WDAO 107.7 OH Dayton, Music City Radio
                                               1925 WFUZ 93.7 FL Ocala, wx from WFUX wx sta.
0618 RRVR 106.5 IA Davenport, NW Bell spot
1920 WAAG 94.9 IL Galesburg, wx forecast
                                               6/21 Gw
                                               2135 WGFA 94.1 IL Watseka, Watseka tire ctr
2000 WISU
          89.7 IN Terre Haute, ISU B'cst Srv. 2059 WTCA 94.3 IN Plymouth, "WTCA NX center"
          89.9 IL Peoria, concert hall
2100 WCBU
                                               6/22
2141 WILO 99.7 IN Frankfort, news
                                               0700 WQFM 93.3 WI Milwaukee, ID
6/16
                                               6/22 Es
0700 WQWQ 104.5 MI Muskegon, Austin Office S.
                                               1100 KWKR 93.7 SD Winner, 1cl & reg. NX
0800 WWAM 92.9 MI Cadillac, ex-WKJF, ad
                                               6/22 GW
0917 WOLI 95.3 IL Ottawa, Ottawa Nat. Bank
                                               2155 WFAW 107.3 WI Fort Atkinson, "Adult sta."
6/17
                                               2208 KIWI 105.3 IA Dubuque, NX, wx, sports
0430 WMAD 106.3 WI Madison, k, lcl WLNR off
                                               7/3 Es
6/18
                                               1932 WDWD 92.1 GA Dawson, Dawson shopping ctr
1858 WAWA 102.1 WI Milwaukee, r, WAWA jingle
                                               1936 WFDR 93.3 GA Manchester, mystery contest
1958 WMUK 102.1 MI Kalamazoo, Blue grassmad
                                              1939 WIPE 94.3 GA Americus, freedom spot
       73's and good DX, Michael.
                                              1940 WTAN 95.7 FL Clearwater, Tampa Bay wx
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Ed Brindle - 1220 College Drive - Latrobe, PA 15650 (EDT) Eqt: Ancient 10 tube Westinghouse AM-FM, VU-90 & rotor at 20 ft. AAT. All loggings New.

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Qw: 19 locals logged in or around Pitts-| 8/17 Tr 0033 WOMP 100.5 OH Bellaire
(1976)
         burgh. , at distances from 10 to 65
                                                        0150 WAUP 88.1 OH Akron
         miles from this QTH. Now DX:
                                                        0200 WKSU 89.7 OH Kent
8/16 Tr 1902 WYSU 88.5 OH Youngstown
                                                     Gw 1500 WWKS 106.7 PA Beaver Falls
        1930 WMRT 88.3 OH Marietta
                                                     Tr 2058 WKLC 105.1 WV St. Albans
        2000 WSOM 105.1 OH Salem
                                               8/21
                                                        0320 CJOM 88.7 ON Windsor
        2029 WAJR 101.9 WV Morgentown
                                                        0346 WIFC 95.5 WI Wausau
        2101 WCRF 103.3 OH Cleveland
                                                        0400 WKDD 96.5 OH Akron
0455 WIOT 104.7 OH Toledo,(250)
        2155 WHOT 101.1 OH Youngstown
        2200 WOUB 91.3 OH Athens
                                                        0457 WOML 104.3 MI Detroit, (260)
        2250 WGCL 98.5 OH Cleveland
                                                        0501 WMUZ 103.5 MI Detroit
        2351 WELA 104.5 OH East Liverpool
                                                        0514 WDRQ 93.1 MI Detroit
        2355 WFGM 97.9 WV Fairmont
0001 WRGT 106.5 WV Clarksburg
                                               8/22
                                                        1203 WCOL 92.3 OH Columbus
8/17
                                                        1220 WENS 97.1 OH Columbus
        0003 WKBN 98.9 OH Youngstown
                                                8/23
                                                        0645 WTRF 107.5 WV Wheeling
        0010 WDBN 94.9 OH Medina
                                                     Gw 1605 WPME 105.5 PA Punkutawney
        0030 WQAL 104.1 OH Cleveland
                                               Total: 50; 88-92: 9; US: 5; Cn: 1; TPU: 6
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If cash permits to buy new eqt, I'll get back into FM-DX. 73's - Ed. WDX3IKH, KATZ6972.

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Peter Sawatzky - 244 Neilson Ave. - Waterloo, Ont. N2J 2M3 (EDT)
Receiver: Heathkit AJ-15; Antenna: Delhi 1047 30'AGL. New Loggings underlined.
4/17 GW
                                              5/25 Tr
1022 CKNX 101.7 ON Wingham, "Preview 102", (50) 0744 WMMU 90.1 MI Marquette, (400)
                                              0806 WJPD 92.3 MI Ishpeming, (410)
     WEPR 90.1 SC Greenville, (605) ID logged 5/30 Tr 2345 WKSW 99.5 OH Cleveland, ex-WNCR
     on MS tape control unit between 0800-2000
                                                  Es 1806 KROA 95.7 NE Grand Island. (925)
4/20 Tr
                                                      1811 KFGQ 99.3 IA Boone, (680),NX,WX
     WIAN 90.1 IN Indianapolis, (380) ID
                                                      2035 KIBC 93.5 NE Ogallala, (1085)
    (children's program logged on MS tape
                                                      2049 KIMN 98.5 CO Denver, (1270), r
    control unit between 0800 and 1800)
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(continued next page)

FM-DX NORTH August 1977 6/6 Es (continued) Peter Sawatzky report - continued. 5/23 Tr 1005 WSND 88.9 IN Notre Dams, (315) 1922 WVOH 93.5 GA Hazlehurst (810) wx, ID, k Gw 1135 CILQ 107.1 ON Toronto,Q-107,r 92.9 GA Valdosta (885), ID, k 1941 WGOV Gw 1202 CHAY 93.1 ON Barrie, new sta. (75) 1946 KYKF Tr WSAE 89.3 MI Spring Arbor (215), 1946 KLEF 93.3 TX Port Arthur (1180) 94.5 TX Houston (1240) 95.1 TX Beaumont (1175) wx, ID (logged on MS tape control 0800-1800) 1957 KIEL 6/5 Es 2000 KKAJ 95.7 OK Ardmore (1100) 2014 KWYR 93.7 SD Winner (965) 1010 KICT 95.1 KS Wichita (955) 1014 KWKI 93.3 MO Kansas City (785) wx, ID 94.5 KS Jetn City (890) prev. MS 92.3 KS Newton (945) wx, ID 2017 KPAT 97.3 SD Sieux Falls (810) 2018 WCOW 97.1 WI Sparta (515) short skip 1020 KJKC 2028 KDOM 1030 KOEZ 94.3 MN Windom (725) ID, severe wx 93.1 KS Pratt (1025) 97.3 KS Garden City (1105) 98.3 KS Abilene (910) local BB 1034 KWNS 2040 KUPK 94.5 KS Scott City (1100) ID 1036 KFLA 2108 KABI 93.7 KS Salina (925) lel mx, ads 2117 KJLS 103.3 KS Hays (1025) lcl ad, k 1048 KYEZ 95.7 MT Scobey (1240) k, ID 90.1 CO Denver (1270) 97.3 KS Garden City (1105) NX, wx 2144 KCGM 1105 KUPK 2231 KCFR 6/6 Es 2327 KPIK 1028 WUSF 89.7 FL Tampa (1070) 93.9 CO Colorado Springs (1285) ads 93.3 FL Tampa 2334 KIIQ 102.7 CO Manitou Springs (1290) rock 1030 WFLA 2336 KSPZ 1034 WFUZ 93.7 FL Ocala (985) 92.9 CO Colorado Springs, ex-KVOR 98.9 CO Pueblo(1285) jazz, ID 1046 WPAP 2346 KVMN 92.5 FL Panama City (955) 2358 KGRE 1105 KEBC 94.7 OK Oklahoma City (1045) 92.3 CO Greeley (1240) ID 6/8 Es 92.9 TX Wichita Falls (1165) 1107 KBID 1625 WINZ 94.9 FL Miami (1205) 2042 WCCF 92.7 FL Punta Gorda (1145) 91.1 FL Jacksonville (910) ID 1659 WFAM 6/9 Es 1700 KIBC 93.5 NE Ogallala (1185) 1730 KBVL 94.7 CO Boulder (1280) 1cl prog. 1701 WRNS 95.1 NC Kinston (585) "Help wanted" 1735 KIMN 98.5 CO Denver (1270) 93.5 AL Geneva (900) 1703 WGEA 1737 KSPZ 92.9 CO Colorado Springs (1285) 92.7 NE O'Neill (915) 1740 KXKX 95.7 Denver (1270) ID, 1cl ads 1711 KBRX 1718 WHER 103.7 MS Hattiesburg (965) 1755 CBWH 101.5 MB Cr. Rapids, lcl road report 1732 WPXI 95.1 SC Charleston (735) 1250 CBWP 94.5 MB Leaf Rapids (1250)lcl events 1736 CBAF 94.3 NB Moneton (790) FFc, ID 6/14 Es (Couldn't find this station listed, taped 1717 KXKX 95.7 CO Denver (1270) ID sounds like CBAF or CBIF -- assume 1719 KIMN 98.5 CO Denver (1270) CBAF-FM, in Moneton) 1724 KPIK 93.9 CO Colorado Springs (1285) 1759 KWBE 92.9 NE Beatrice (855) ID, NX 1802 CEIM 93.5 PQ Iles de la Madeleine (945) 1726 KBVL 94.7 CO Boulder (1280) 1727 KFKZ 96.1 CO Greeley (1240) ID. lcl ad 1735 KXXX 100.3 KS Colby (1090) (This is probably the only station that I 1745 KVMN 98.9 CO Pueblo (1285) have ever accepted into my logbook with-1752 KFJZ 97.1 TX Fort Worth (1170) ex-KWXI out some positive ID from programming. Leads were the antenna bearing, FFc prog. 1754 KNEB 94.1 NE Scottsbluff (1170) o/CBL & other skip (CHSJ-4 & CBAF-94.3) Accord-1757 KIIQ 102.7 CO Manitou Springs (1290) ing to B'c'tg Yrbook 1976, CBIM repeats 1758 KAZY 106.7 CO Denver (1270) ID, rock CBGA Matane PQ.) 1800 KVIL 103.7 TX Dallas (1130) 93.5 FL Vero Beach (1080) 1801 KOAQ 103.5 CO Denver (1270) "Q-103, KOAQ" 1805 WGYL 1807 WMCU 89.7 FL Miami (1205) 1803 KBRU 101.7 CO Fort Morgan (1205) lcl NX 1808 WDHP 96.9 ME Presquie Isle (645) rock 1805 KZEW 97.9 TX Dallas (1130) 1814 KICS 93.5 NE Hastings (925) 1806 KKAJ 95.7 OK Ardmore (1100) 92.3 ME Omaha (795) local ads, ID 94.5 TX Gainesville (1105) 1815 KEZO 1807 KGAF 1822 KROA 93.3 OK Ada (1045) 95.7 NE Grand Island (925) 1809 KTEN 97.3 FL Miami (1205) 1824 WAIA 1812 KLLS 94.3 OK Okmulgee (970) 1cl NX, ID 94.5 WY Casper (1280) 1829 WVFM 94.1 FL Lakeland (1065) o/lcl CBL 1813 KAWY 97.3 CO Boulder (1280) lcl ads. wx 1835 WXOS 100.3 FL Plantation Key (1280) 1815 KRNW 1842 WMJX 96.3 FL Miami (1205) 1818 KLOV 102.3 CO Loveland (1265) 1cl ads 1845 WEEJ 100.1 FL Port Charlotte (1155) 1846 WHEW 101.9 FL Fort Myers (1160) 1819 KIOZ 1828 KSUC 102.9 WY Laramie (1280) lcl ads, ID 88.3 TX Keene (1190) 1848 WORJ 107.7 FL Mount Dara (1015) 1833 KISR 1844 KWYR 93.7 AR Fort Smith (920) ID 1850 WCKO 102.7 FL Pompano Beach (1190) 93.7 SD Winner (965) 1844 KBID 92.9 TX Wichita Falls (1165) 1850 WCKS 101.1 FL Cocoa Beach (1035) 98.1 OK Lawton (1125) o/CHFI 97.5 FL Winter Haven (1065) 1846 KRLG 1853 WPCV 94.5 FL Naples (1180) ID, NX 1847 KLUR 1858 WCVU 99.9 TX Wichita Falls (1165) o/CKFM 1858 WCCF 92.7 FL Punta Gorda (1145) 1848 KNTO 103.3 TX Wichita Falls (1165) lcl NX 2020 KSCS 96.3 TX Fort Worth (1170) Of note were the opening of the 6th of June 93.9 TX Fort Worth (1170) 1cl annt SS 2032 KESS which seemed to be east, west and south 2036 KFMN 99.3 TX Abilene (1275) simultaneously, covering 18 states and prov-92.9 OK Tulsa (955) prev. by MS 12055 KARC inces, and the no. Manitoba opening on 6/9.

73 - - Pete

pointed at Seattle. Wishing you good DX -- W.T. Ryan. (Glad to get your report from the Great Northwest. I hope you, and others in your neck of the woods will report often - fjn)

Fred Nordquist - 7945 Boxford Road - Clay, NY 13041 (EDT)



Southern FM·DD

Dave Cox 2704-C Briarberry Cir. Birmingham, AL 35226 Deadlines:

SERVING FM DXers FROM THE SOUTHEAST, SOUTHWEST, AND MEXICO

June, 1977 was a fairly good month for FM DX; though perhaps not as spectacular as some summer months of years past, June was like a breath of fresh air when compared to the DX poor spring and winter just past. Apparently the best day of Es so far this year has been June 6, although there were also several other good days in the latter part of the month, most notably the period of June 20-25.

7211 Chestnut St., Hank Holbrook Chevy Chase MD 20015 DXing from: Fair Haven MD cottage 15 miles below Annapolis MD with Scott 310E FM tuner with Blonder-Tongue FM booster and Finco 10 element single bay FM. yagi with CDE rotor not working and pointed in SW direction. Also from Sugar Loaf Mountain, MD, about 11 miles SSE of Frederick, MD with a Sony model TFM-7250 AM/FM portable with 12 transistors using the vertical rod type antenna.

Since our report in March, FM DX has been rather dull, at least up until now! Spent most weekends in May at the office (inventory time!!) a couple of trips to the bay so far in June. Some skip noted but all on TV from Chevy Chase and from Fair Haven, and then mostly horizontal bars on channels 2 & 3. Nothing as yet on FM logged on E skip this

season. Logged and reported:

4-16-77 0134-0210 WWCS 106.9 MD Hagerston (80); r ex-WARK which was often heard at the

5- 8-77 0527-0605 WXYV 102.7 MD Baltimore (40) ex-WCAO

Comment: Sorry to see another classical musical station bit the dust. It is said that "Only the Chosen Few Enjoy Classical Music" and I'm glad to be one of the minority!! Only sorry we can't keep the classical stations on the air.

The family had a picnic at Sugar Loaf Mountain on June 5th and while my two daughters had a dull time because of the rain, I had a ball! Before buying the cottage in 1964, I used to do some mobile DXing to get away from a poor Chevy Chase location due to images from D.C. & MD locals, most of which have their transmitters near Chevy Chase. In the 60s, FM reception was almost impossible from 0500 to 0100 (now it's impossible with more stations, more power on, and most stations on 24 hours). We used to occaisionally try our hand at mobile DXing and a favorite spot was Sugar Loaf. Actually, only 11 stations heard and reported from that location, and since then, 5 have been heard at Fair Haven. Had fun on the 5th reminiscing (to myself) about the good old days and noting my first translator reception on FM:

6-5-77 1412-1431 W276AB 103.1 MD Frederick (11) WFSI translator. Good signal but WFSI on 107.9 was almost as strong

1435-1500 W288AB 105.5 MD Braddock Heights (13) WFRE translator. Fairly good but WFRE on 99.9 was stronger. ERP, according to WFRE is about 2.3 watts!

Sugar Loaf is an interesting mountain as it stands all by itself. Reception was from the top parking lot at about 960 feet. Highest point on the mountain is about 1280 feet. In the sixties, we drove a Comet equiped with a Blaupunkt car radio, which was a pretty good DX receiver. Never did run into a skip opening while there but most distant station logged and QSLed from there was a pretty good catch in WGNC Gastonia, NC, 101.9 at 340 miles with 11kw. Heard back on 8-19-61. Always enjoyed mobile DXing in the fresh mountain air!!

Then back to Fair Haven:

6-10-77 2157-2250 WIVY 97.9 MD Baltimore (40); r ex-WBAL Another rock station. This has to be the worst spring on record. We didn't make it out of the state of Maryland - HI!! 73s, Hank (Thanks for the report, Hank. ...dsc)

5315 Silvertip Drive, San Antonio TX 78228 Equipment: Hallicrafters sx-62 with International Crystal SAX-1 preamplifier(s) with an Archer 6-element FM antenna at 20 feet with rotor.

5-17-77 (cont.) Es 1715 XHQK? 91.3 DF Mexico City (690) 5-17-77 Es 1340 unIDs 88-89 1401 WMUM 94.3 FL Marathon (1125) ID XHM? 88.9 DF Mexico City (690);m 1403 WINZ 94.9 FL Miami Beach (1150) ID XEJP? 93.7 DF Mexico City (690) 1405 WWWL 93.9 FL Miami Beach (1150) ad 1730 fade outs 1409 WINK 93.9 FL Ft. Myers (1040);m 5-20-77 1420 WEDR 99.1 FL Miami(1150) ad Es 1103 KILA? 95.5 NV Henderson (1040);g WMCU? 89.7 FL Miami (1150);r 1505-25 unIDs 88-94 1439 WFYN 92.5 FL Key West (1090) ad 1528 WDOC 95.5 KY Prestonburg (1065) with 1600 fade out area baseball 1702 XHNP? 89.3 Pue Puebla (735) 1545 WDBN? 94.9 OH Medina (1230);m XEBS? 89.7 DF Mexico City (690) WCLV? 95.5 OH Cleveland(1250);c 1715 XHCM? 88.5 Mor Cuernavaca (735)

continued -

WGCL? 98.5 OH Cleveland(1250);r

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Pat Dyer's report continues ..
5-20-77 (cont.)
                                                     15-29-77 (cont.)
Es 1559 WIFF 105.5 IN Auburn (1115) area ad
                                                     Es 1800 KCSN 88.5 CA Northridge (1210) ID
   1601 WVNO 106.1 OH Mansfield (1180) ad
                                                               KPCS 89.3 CA Pasadena (1185) ID
   1603 WCLW 105.3 OH Mansfield (1180) ID
                                                               KUSC? 91.5 CA Los Angeles (1190);c
   1605 WSRW 106.7 OH HIllsboro (1080) ads
                                                               KFAC 92.3 CA Los Angeles (1190) ads
   1612 WMRI 106.9 IN Marion (1050) area ads
                                                         1803 KROQ 106.7 CA Pasadena (1185);r ID
   1614 WXTZ 103.3 IN Indianapolis(995);m ID
                                                               KWST 105.9 CA Los Angeles (1190) ID
   1615 WCRF 103.3 OH Cleveland (1250) psa
                                                         1817 KRUZ 103.3 Santa Barbara CA (1270) ad
   1615 - 1655 with VOR's
                                                      tr
                                                               KWMJ 103.3 TX Midland (275) area ad
   1659 WMNA 106.3 VA Gretna (1210) ID, sprts
1700 WYEN 106.7 IL Des Plains (1050) ID
                                                      Es
                                                               KAPX 107.9 CA San Clemente (1150) ad
                                                               KBIG 014.3 CA Los Angeles (1190) ID
   WMIL 106.1 WI Waukesha (1100);m
1702 WKDE 105.5 VA Altavista (1225) ad
1707 WQRS 105.1 MI Detroit (1225) wx
                                                         1819 KAGB 103.9 CA Inglewood (1195) area ad 1823 KNAC? 105.5 CA Long Beach (1180);r
                                                         1829 KBCA? 105.1 CA Los Angeles (1190)
   1714 WNRE 107.1 OH Circleville (1125) ID
                                                         1832 KOST 103.5 CA Los Angeles (1190) ID
   1718 WITO 107.1 OH Ironton (1100) ID
                                                         1835 KWAO 106.3 AZ Sun City (850) ID, ad
                                                         KSTM7 107.1 AZ Apache Junction (810)
1849 KPRI 106.5 CA San Diego (1120);r ID
1905 KYXY? 96.5 CA San Diego (1120)
KKOS? 95.9 CA Carlsbad (1125)
   1724 WJRS 103.1 KY Jamestown (910) psa
1740 WHOK 95.5 OH Lancaster (1145) ad
   1743 WHBC
                94.1 OH Canton (1235) ad
   1745 WRQK
               98.7 NC Greensboro (1175) ad
                95.1 NC Charlotte (1105);r
                                                         1908 KIFM 98.1 CA San Diego (1120)
   1754 WROQ
               98.9 SC Spartanburg (1035) ID
   1801 WSPA
                                                         1910 KFSG? 96.3 CA Los Angeles (1190);g
         WMUU 94.5 SC Greenville (1010) wx WQDR 94.7 NC Raleigh (1230);r ID
   1807 WMUU
                                                         1915 KFMB? 100.7 CA San Diego (1120)
                                                         1916 KBBL 99.1 CA Riverside (1140) ID
   1808 WPEG 97.9 NC Concord (1120) area ad
                                                         1917 KNOB 97.9 CA Long Beach (1180) ID
   1812 WQMG
               97.1 NC Greensboro (1175) ad
                                                         1927 KFSD 94.1 CA San Diego (1120);c ID
                95.1 NC Kinston (1275) ID
   1815 WRNS
                                                         1941 KWXY 98.5 CA Cathedral City (1080)ID
               98.1 NC Fayetteville (1200) ID 94.1 GA Smyrna (875) "94-Q",
   1817 WQSM
                                                         1942 KJOI 98.7 CA Los Angeles (1190);m ID 2000 KLON 88.1 CA Long Beach (1180) ID
   1822 WQXI
                                        Atlanta
                                                         2015 fade out
         WPCH? 94.9 GA Atlanta (880);m
                                                      tr 2300 KSLI 96.9 LA Alexandria (385) ID,s/off
                98.5 GA Atlanta (880); m ID
   1830 WSB
                                                         2358 KSNS 96.1 LA Lake Charles (325) ID
   1832 WCMJ 99.3 SC Chester (1075);g ID
1835 WSTS 96.5 NC Laurinburg (1165) ad
1837 WXLE? 94.3 AL Abbeville (805) with
                                                      5-30-77
                                                      tr 0000 KIEL
                                                                      95.1 TX Beaumont (275) ID
                                                               KOXY
                                                                      94.1 TX Beaumont (275);m ID
                           south AL baseball
                                                         0030 WYLD 98.5 LA New Orleans (510) nx
   1840 WISE 94.3 NC Wallace (1255) ID
                                                         0043 WQUE 93.3 LA New Orleans (510) ID
0045 KLCL 99.5 LA Lake Charles (325) ID
   1852 fade outs
5-21-77
                                                                      97.5 TX Beaumont (275) ID
                                                         0059 KAYD
Es 1810 unID 89.7
                                                                      97.1 LA New Orleans (510) ID
                         ?
                                                         0101 WEZB
                             brief
5-26-77
                                                                                 local on 97.3 off
Es 0850 - 0855 unID 88.3
                                                      Es 1510-25 unIDs 88-89
5-27-77
                                                      5-31-77
Es 0840-55 unIDs 88-89
                                                     Es 0835-55 unIDs 89's from OH
   1000-10 unIDs 88's
                                                      tr 0846 KYKR 93.3 TX Port Arthur (280) ad
                                                     Es 0858 WSOF 89.9 KY Madisonville (835 ID 0859 WDYN 89.7 TN Chattanooga (865) ID
5-28-77
tr 0859 KIBK 94.5 TX Lubbock (340) ID
0905 KSEL 93.7 TX Lubbock (340) ID
                                                         0900-40 unIDs 88-89
                93.5 OK Altus (360) ads, ID
                                                         0950 WJCT 89.9 FL Jacksonville (1015);c
1008 WUSF 89.7 FL Tampa (985) ID, wx
   0914 KWHW
                99.9 TX Wichita Falls (305) ID
   0927 KLUR
                                                         1029 WMCU 89.7 FL Miami (1150) ID
1030 WWWL? 93.9 FL Miami (1150);r
   0928 KFJL
                98.9 OK Oklahoma City (420);s
   0932 KOFM 104.1 OK Oklahoma City (420) wx
0941 KWOE 106.5 OK Clifton (420) ID, psa
0942 KOOI 106.5 TX Jacksonville (260) ID
                                                               WEDR? 99.1 FL Miami Beach (1150);r
                                                               WWOG? 99.9 FL Boca Raton (1150);m
5-29-77
                                                      tr 1036 KIOF 106.1 TX Orange (295) "K-106"
Es 1510-25 unIDs 88-95
                                                     Es 1040 WAXY 105.9 FL Ft. Lauderdale (1150)
   1528 WTMB? 98.9 WI Toamh (1100)
                                                                                   political ad
           KXEL 105.7 IA Waterloo (960) ad
                                                         1042 WIRK? 107.9 FL West Palm Beach (1145)
   1542 KTWN? 107.9 MN Anoka (1125)
                                                         1045 WYOR 105.1 FL Coral Gables (1150) ads
   1549 KYSM 103.5 MN Mankato (1045) ID
                                                         1046 WGLO 106.7 FL Ft. Lauderdale (1150) ID
   1609 KSID 95.3 NE Sidney (845) ID
                                                         1058 WCVU 94.5 FL Naples (1050) ID
   1625 fade outs
                                                               WRGI? 93.5 FL Naples (1050);r
   1655-1710 unIDs 88-95
                                                         1100 fade outs
   1715 KXTZ 94.1 NV Henderson (1040) ads
                                                         1205-10 TGRT? 88.8 Guat. Guatemala City (1120)
   1733 KVIL? 93.7 CA Coachella (1070);S
                                                     6-1-77
         KILA? 95.5 NV Henderson (1040);g
                                                     Es 1750 WDYN? 89.7 TN Chattanooga (865);g
   1741 KPFK 90.7 CA Los Angeles (1190) psa
                                                      1810 WMPR? 88.1 SC Sumter (1110)
   1743 KDKB 93.3 AZ Mesa (820) ads
                                                                           - continued -
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Pat Dyer's report continues ...
6-3-77
Es 1135-40 WJCT? 89.9 FL Jacksonville (1015) Es 1905-1955 uniDs 88-94 very spotty
  2025 KDKB? 93.3 AZ Mesa (820)
       KOOL 94.5 AZ Phoenix (835) ID
       KRFM?? 95.5 AZ Phoenix (835);m
tr 2027 KGAF 94.5 TX Gainesville (300) ID
        KMEO? 96.9 AZ Phoenix (835);m
        KUPD? 97.9 AZ Tempe (825);r
  2037 KBBC 98.7 AZ Phoenix (835) ad
  2051 KILA? 95.5 NV Henderson (1040);g
        KXTZ? 94.1 NV Henderson (1040);m
       KLUC? 98.5 NV Las Vegas (1050);r
KORK? 97.1 NV Las Vegas (1050);m
        KTRI? 92.3 NV Las Vegas (1050);r
  2054 KFSG? 96.3 CA Los Angeles (1190);g
(50 mHz 3Es to Hawaii soon in, so I don't
 know what happened on FM after then.)
6-4-77
Es 1303 CJOM? 88.7 Ont Windsor (1230)
  1340-1410 unIDs 88-89
  1358 WGRD? 97.9 MI Grand Rapids (1125)
  1408 WZZM? 95.7 MI Grand Rapids (1125);r
  1817 WMBI? 90.1 IL Chicago (1045);g
  1827 WNIU? 89.5 IL De Kalb (1020)
  1831 WAJP 93.5 IL Joliet (1015) ID
  1833 WFMT? 98.7 IL Chicago (1045)
       WLAK? 93.9 IL Chicago (1045);m
       WDAI 94.7 IL Chicago (1045); r ID
       WMET? 95.5 IL Chicago (1045)
  1842 WYCA? 92.3 IN Hammond (1040);g
  1859 WNMU 90.1 MI Marquette (1320)
  1902 WVPE 88.1 IN Elkhart (1095) nx, ID | report. Thanks again ...dsc)
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16-4-77 (cont.)
   1959 WUWM 89.7 WI Milwaukee (1100) ID
   2016 KESD? 88.3 SD Brookings (1020)
   2021 KFJM? 89.3 ND Grand Forks (1240)
         KYTN? 94.7 ND Grand Forks (1240);m
   2023 KQWB? 98.7 MN Moorhead (1205);r
   2026 KDLO 96.9 SD Garden City (1090) ID
   2035 fade outs
6-5-77
Es 1210-20 unIDs 88-89
   1235 KESD? 88.3 SD Brookings (1020)
   1237 KEYA? 88.5 ND Belcourt ;r
         KUSD? 89.7 SD Vermillion (920);c
   1241 KFJM? 89.3 ND Grand Forks (1240); swing 1243 KYTN 94.7 ND Grand Forks (1240); m ID
   1245 KQWB? 98.7 MN Moorhead (1205);r
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This is about where the June report should have gone to. As of the moment, I have almost the entire month of June tapes to go back WFMK 99.1 MI East Lansing (1195) ID through to pick out IDs, etc. I guess I'll WZZM? 95.7 MI Grand Rapids (1125);r get caught up sometime. To keep the suspense 1747 WJMT 93.5 WI Merrill (1190) psa, ID up, there will be some double hop loggings in the June/July periods.

735,

Pat WASIYX

(Many thanks for reporting, Pat. And we'll be looking forward to hearing about those double hops, hopefully in next month's

Ted Fleischaker 3023 Tremont Drive, Louisville KY 40205 (502) 454-3191 Equipment: Technics ST-7600 and Winegard SC-650 at 25 feet. EDT

Been such a busy first part of the season that I hardly have had time away from the radio to eat and sleep (but those who know me know not eating won't hurt any, hi). At any rate, been a phenomenal June and July thus far, with lots of new loggings. New loggings since 6-7: 6-30-77 (cont.)

6-14-77 Es 1800 KFYR 92.9 ND Bismarck 1802 KQDY 94.5 ND Bismarck 6-21-77 94.9 AL Mobile Es 1950 WKSJ tr 2128 WLCK 99.3 KY Scottsville 2158 WTKY 92.1 KY Tompkinsville 6-23-77 Es 2002 KZFM 95.5 TX Corpus Christi 93.7 TX Houston 2012 KRLY 2016 KIOU 96.5 TX Corpus Christi 6-25-77 tr 1011 WDRM 102.1 AL Decatur 1102 WLOC 102.3 KY Munfordsville 1124 WIMA 102.1 OH Lima 1200 WMBJ 102.1 IL Danville 6-29-77 tr 0211 WAMX 93.7 KY Ashland 0150 WXUS 92.7 IN Lafayette 6-30-77

tr 0205 KNWS 101.9 IA Waterloo

Es 2000 KAMA 93.1 TX El Paso

Es 2002 KPAS 93.9 TX El Paso 2015 KSET 94.7 TX El Paso 2046 KRDO 95.1 CO Colorado Springs 2101 KWBI 91.1 CO Morrison-Denver 7-1-77 tr 2015 WDEF 92.3 TN Chattanooga Es 2055 KLBJ 93.7 TX Austin 2100 KNBT 92.1 TX New Braunfels 2115 KOKE 95.5 TX Austin 2124 KINL 92.7 TX Eagle Pass 7-3-77 tr 0303 WIL 92.3 MO St. Louis 7-4-77 tr 0110 WBIE 101.5 GA Marietta 0134 WPVR 94.9 VA Roanoke 0205 WYCA 92.3 IN Hammond 0217 WLRG 92.3 VA Roanoke 0325 WRJB 98.3 TN Camden 1215 WRAJ Es 1335 KYEA 92.7 IL Anna 88.5 ND Belcourt tr 2244 WEBQ 99.9 IL Harrisburg

That's it as of now, but am working on them, as am still missing some easy states around here that I really ought to have. Total states heard now at halfway point at 25, with just one lone Canadian province and also Mexico on my list. That's about it for now - anyone interested in swapping an air check or two, please write or call! 73s, Ted

1 T T T T T T T T T T T T T T T T T T T		August 197
Mike Dalton 1840 3-14-77	Drew St., Clearwater	
tr 1000 WTSU 90.1 AL Troy ;m Tr	oy St. U. tr 1715	(cont.)
WJIZ 96.3 GA Albany	03 00. 0.   01 1715	WGOK 92.1 AL Fairhope WBLX 92.9 AL Mobile
WEZB 97.1 LA New Orlean	s	WMTM 93.9 GA Moultrie
WAFB 98.1 LA Baton Roug	e	WROA 107.1 MS Gulfport
KDEA 99.1 LA New Iberia		WOWD 103.1 FL Tallahassee
WKRG 99.9 AL Mobile	THE STATE OF THE S	WWL 101.9 LA New Orleans ID and
WNOE 101.1 LA New Orlean		"Beautiful Music"
WWL 101.9 LA New Orlean		WAFT 101.1 GA Valdosta
WXEL 105.3 LA Slidell 3-28-77		WCUP 100.3 GA Tifton
tr 1000 WMPR 88.1 SC Sumter		WKRG 99.9 AL Mobile
4-1-77	400	WAFB 98.1 LA Baton Rouge
MS 1515 WILL 90.9 IL Urbana	venin The terms	WQHL 98.1 FL Live Oak in w/WAFB
4-5-77	A SOUTH CLUSTER IN	WTAD 97.3 GA Bainbridge WEZB 97.1 LA Baton Rouge
Es 0915 WVJC 89.1 IL Mt. Carmel		WXLM 97.3 GA Savannah
ly raised power to 50k	w - got two 2108	KZZQ 94.3 LA Golden Meadow
calls from the station		WQID 93.7 MS Biloxi
4-6-77	5-20-77	
tr 1340 KSUC 88.3 TX Keene		XHFO 92.1 DF Mexico City ;m,SS
KETR? 88.9 TX Commerce	AND DECEMBER 1	TGRT 88.8 Guatemala
KERA? 90.1 TX Dallas ;c		
?? 91.7 ? gospel	MS 1000	WSF- unID via MS
4-18-77 tr 1112 WGOK 92.1 AL Fairhope	Also	on about this date, club member Earl
WBLX 92.9 AL Mobile	with in thous an	nd I were reviewing a tape made last
	listening   year dur	ring an opening to Panama and found
WJAD 97.3 GA Bainbridge		6-29-76 1200 Radio Barranquilla, 90.5
WLTE 102.5 GA Waycross ;1		uilla, Columbia S.A. with announcement Have written to station for confir-
WFTW 99.3 FL Ft. Walton	Beach mation.	It does pay to save DX tapes!!!
WAFT 101.1 GA Valdosta ;	5-30-77	To does bay to save by rabes!!!
4-29-77	Es 2212	KDPS? 88.1 IA Des Moines
tr 0850 ?? 90.9 ? jazz m	then f/out	unID 90.1 ? gospel
KPFT 90.1 TX Houston	Carles 1	unID 89.5 ? discussion about
KAMU 90.3 TX College Sta		Israel 197h
KANU 91.5 KS Lawrence		WERN? 88.7 WI Madison WI network
KCHU 90.9 TX DAllas	1	unID 89.1 ? lecture
4-30-77 tr WHHY 101.9 AI. Montgomery	1	KCLC? 89.1 MO St. Charles
tr WHHY 101.9 AL Montgomery also SS unID on 88.8 from SW -		unID 90.9 ? symphonic
likely TGRT, Guatemal		KGRC? 92.9 MO Hannibal
unID from north with jazz		WHLA? 90.3 WI Holmer
5-4-77		KUNI? 90.9 IA Cedar Falls ;r KCCK 88.3 IA Cedar Rapids ;c
0930 WBCL 90.3 IN Ft. Wayne	with men-	WBGO 88.3 NJ Newark QRM to KCCK
tions of the	city	unID 87.8 ? TV ch6 w/Sonny & Cher
5-5-77		WPNE? 89.3 WI Green Bay
tr 1145 unID 90.9 ? ;r & P	1 1	WERN 88.7 WI Madison "Wisc Ed Radio
WFAM 91.1 FL Jacksonvill	e w/plano	Network"
unID 91.9 ? nx, "91.9		WHAD 90.7 WI Delafield
- any gu		unID 90.9 ? rock
5-18-77 Es 1820 WORO 92.5 PR Corozal		WUOT? 91.9 TN Knoxville
5-19-77		KAUS 99.9 TX Austin ;m w/ID
tr 1006 WBLR 92.1 SC Batesburg	2205 8	KIMI 97.3 IA Des Moines wx,nx
1016 WPEH 92.1 GA Louisville	2 500 K	KKBC? 97.3 NV Carson City
WLTR 91.3 SC Columbia	w/ID K	KDLO? 96.9 SD Garden City KMRJ? 96.9 KS Pittsburg
1038 WBBQ 104.3 GA Augusta		KCFL? 95.3 MO Kansas City
WGPC 104.5 GA Albany	K	KFLA? 94.5 KS Scott City
WDEN 105.3 GA Macon w/ad	s K	KSTP 94.5 MN St. Paul wx & TD
WKIG 106.3 GA Glenville	on with K	MJCK? 94.5 KS Junction City :r
transmitte	er tests   1133 K	(FMD? 92.9 IA Dubuque :r
WOKA 106.7 GA Douglas ;k		KDB? 93.7 CA Santa Barbara tentative
WCLA 107.1 GA Claxton		over WFUZ Ocala
WZZW 103.1 GA Augusta	5-31-77	Gulf tropo comes late this year!
1118 WZAT 102.1 GA Savannah	tr 1125 K	BID 92.9 TX Wichita Falls
?? 101.9 FL Jacksonville	(WQXQ in KI	ONTU 88.5 TX Denton
Daytona Beach		CBI 89.3 TX Dallas ;g w/ID
WEEJ 100.1 FL Port Charlot WXIM 97.3 GA Savannah	,te K	ERA? 90.1 TX Dallas
"ALLA" /1.) ON DAVAIHIAN		- continued - 29
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Mike Dalton's report continues ...
 5-31-77 (cont.)
                                                       16-2-77 (cont.)
 tr 1125 KCHU 90.9 TX Dallas
                                                       T/S
                                                                 unID 90.3
                                                                                    rock
          KSYM? 90.3 TX San Antonio ; j&m
                                                                 unID 104.1 ? rock
          KNIT? 105.1 TX Abilene
                                                                 WIGY 105.9 ME Bathe
                                                                                          ID,ads,prog
                 99.9 Tx Waco w/nx
                                                                 WDRC? 102.9 CT Hartford ;r
                 99.9
          unTD
                        ? rock
                                                                 WGAN 102.9 ME Portland "Stereo 93"
          KPLT
                 99.3 TX Paris ;r
                                                                                    w/ads,ID,prog
          KLTD? 99.3 TX Lampasa ;k w/nx
                                                                WPOR? 101.9 ME Portland ;k racing ad
                97.9 TX Houston nx & ads

97.3 TX San Antonio; m

98.3 TX Pleasonton; r/k ID

96.5 TX Corpus Christi; m
    1208 KFMK
                                                          WKXL? 102.3 NH Concord PSA then mx
2142 WRIO 102.3 NJ Cape May ;g
2147 WNDX? 103.7 NH Keene
          WOAI
          KBOP
          KIOU
                                                                 WKDN 106.9 NJ Camden
                 95.5 TX Corpus Christi ;r wx
                                                          2159 WCIB 101.9 MA Falmouth-Cape Cod ;m ID
          KZFM
                 93.9 TX Corpus Christi ;m
          KSIX
                                                                unID 101.1 ? rock
                 91.9
          unID
                            SS, probably Mexico
                                                                WQRC? 99.9 MA Barnstable ;m
                 City, D.F.
97.7 TX Kingsville ;r with
                                                          2210 WVOI? 92.7 MA Tisbury
          KPUP
                                                       tr
                                                                WEZB 97.1 LA New Orleans
                             ads, wx & time
                                                       6-3-77
                 92.1 TX Kingsville ads, ID
          KPEK
                                                       Es 2025 KMUW 89.1 KS Wichita
                 92.1 TX Alice ;r
          KDSE
                                                                 WOI 90.1 IA Ames
                 91.9 Tam Ciudad Mante ;SS,r/s
          XHRL
                                                                KLFM? 104.1 IA Ames
          XHXC
                 90.1 NL Monterrey ;SS very
                                                                KLYF? 100.3 IA Des Moines
                                                          2035 WMT 96.5 IA Cedar Rapids
                            low modulation level
                 97.1 LA New Orleans
          WEZB
                                                                KXTR 96.5 MO Kansas City ;k
                 93.3 LA New Orleans w/local
          WQUE
                                                                KEFM? 96.1 NE Omaha
                           off air
                                                                KSRD 96.9 NE Seward with ads, ID, wx
6-1-77
                                                                unID 92.1 ? marriage program
                 91.1 MI Houlton w/nx
88.7 WI Madison
Es 1105 WGGL
                                                                                        (KIJV, KTAV?)
          WERN
                                                                KUMR 88.5 MO Rollo
                                                                                            ID, opera
          WERS
                 88.9 MA Boston ;j with dis-
                                                                unID 88.9 ? rock
                           cussion abt Boston
                                                      fadeout and locals only in after 2050, so went
   1118 unID
                 92.1
                               rock
                                                      home very tired after a day's work & DX
                 92.1 WI Sun Prairie nx
                                                      6-4-77
                88.7 ? singing, maybe CJOM7 tr WBLR 92.1 SC Batesburg ;r annor talk
          unID
          unID 88.3 ? comedy program
                                                                unID 94.5 ? gospel
unID 91.3 ? under local - most
6-2-77
Es 2039 WNHU? 88.7 CT New Haven ;r/j
                                                                                 likely WLTR Columbia SC
         WERS 88.9 MA Boston ;r ID
                                                          0930 WMUU 94.5 SC Greenville
         WJMJ? 88.9 CT Hartford
                       ? symphonic
                                                      MS 0945 WAMU? 88.5 ? location of camp-
         unID 88.5
                                                                                  ground "near Hagerstown"
         unID 89.1
                         ? symphonic
                                                                                 Maryland?
         WTBS? 88.1 MA Boston Boston area pgm (Thanks for the report, Mike! Mike also WESU? 88.1 CT Middleton talk show mentions that he would like to hear from any-WMEA? 90.1 ME Portland strng quart. one with any experience with S.A. or Europe DX)
John M. Jefferson 1150 Tilson Dr., Concord CA 94520 PST/PDT Here's my DX for 8-23-76 to 6-17-77. There was little to report until this month, but the Es has been coming in most afternoons the last two weeks. Equipment: Heathkit AJ-15 tuner and Sherwood S-7100 receiver; Winegard CH-6065 FM antenna 40 feet off the groung and Wine-
gard SC-650 FM antenna 15 feet up; rotors on both antennas. Most loggings done with AJ-15 and SC-650 due to bad circuit board on CH-6065 (now fixed). Local interference on SC-650
less also though the CH-6065 delivers more signal.
3-23-76
                                                      3-17-77
tr 0330 KVIP 98.1 CA Redding (180) ID
                                                      tr 0300 KKBC 97.3 NV Carson City (155) ID, new
MS 0430 KFKZ 96.1 CO Greeley (930) pol.ad
                                                                         in Concord, not in area
                                                      3-22-77
4S 0300 KRSP 103.5 UT Salt Lake City (570)ID MS 0510 CBRX 100.1 AT Lethbridge (945) ref. to
10-10-76
                                                                                                  Calgary
MS 0030 KZAM 92.5 WA Bellevue (690); r veri-
                                                     4-17-77
                                                      MS 1200 KRWN 92.9 NM Farmington (750) ref. to
                           fied by phone
11-9-76
IS 0157 KWFM 92.9 AZ Tucson (720) psa
                                                     4-30-77
1-24-76
                                                     gw 2220 KUBB 96.3 CA Mariposa (115) ID, tests
MS 0312 KBXL 94.1 ID Caldwell (510) ID
    0445 KEUT 94.1 WA Seattle (690) ID
                                                     MS 1620 KL00 106.1 OR Coraville (480) ad
2-23-76
                                                     5-27-77
r 1830 KKYS 107.5 CA Hanford (170) ID
2005 KUNR 88.7 NV Reno (165) w/basket-
                                                     tr 2330 KNVR 96.7 CA Paradise (120) ID
                                                     6-3-77
                  ball game. This one was
                                                     Es 1630 unID 92.9 ? likely KSVP; brief but
                  over high mountains!
                                                                               strong - season's first!
30
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John Jefferson's report continues...
                                                   |6-10-77 (cont.)
Es 2100 KWFM 92.9 AZ Tucson (720)
                                                   Es 1835 unID 99.5 ? sports prog
 6-6-77
                                                       1845 KWBI 91.1 CO Morrison (1010) ID
MS 1315 KUOW 94.9 WA Seattle (690) phoned
                                                       1850 KXXX? 100.3 KS Colby (o/r KBAY San Jose)
                          for verie
                                                                              Royals BB
                                                             KLIR 100.3 CO Denver (915) o/r KXXX?
Es 1950 KSVP 92.9 NM Artesia (1040) ID,
                                                                              both strong
                          solid for 10 min.
                                                             KIMN 98.5 CO Denver (915) ID
   1950 KAVE 87.7 NM Carlsbad (1050) ch.6
                                                       1852 KKFM 96.5 CO Colorado Springs (915)
   2000 KNFM
               92.3 TX Midland (1185) ID
                                                       1855 KWYD 105.5 CO Security (930) ID
   2005 KBIM? 91.9 NM Roswell music o/r KSAN
2010 KLEF 94.5 TX Houston (1600) psa
KPFT? 90.1 TX Houston modern opera?
2030 KLBK 91.5 TX Lubbock (1155) ID
                                                            KAZY 106.7 CO Denver (915) ads
                                                            KXKX 95.7 CO Denver (915) ID
                                                       1900 KOSI 101.1 CO Denver (915) ID
                                                            KLIR 100.3 CO Denver (915) ID
   2036 KQIZ
               93.1 TX Amarillo (1115) "Z-93"
                                                       1902 KBPI 105.9 CO Denver (915) ID
   2040 KRWG? 90.7 NM Las Cruces (930);c
                                                       1905 KINK 101.9 CO Colorado Springs (915)
KVOD 99.5 CO Denver (915) ID
         KCOT 104.7 TX Lamesa (1170) mx & ID
   2045 XHTO 104.3 CH Ciudad Juarez (975) w/
                                                       1907 KSPN 97.7 CO Aspen (820); A loc. ad
                           El Paso ad
                                                       1910 KREX? 92.3 CO Grand Junction ;c
                                                      1911 KPUB 99.9 CO Pueblo (930) ID
Es 1550 KBID 92.9 TX Wichita Falls (1320)ID
                                                      1915 KGIW? 93.5 CO Alamosa ;c
6-10-77
                                                      1925 KVMT? 104-7 CO Vail ;c
Es 1555 KSPZ
               92.9 CO Colorado Springs (915)
                                                       1930 KRDO 95.1 CO Colorado Springs (915)ad
         "Z-93", local ref.
KBPI 105.9 CO Denver (915) ads
                                                       1940 KQIZ
                                                                   93.1 TX Amarillo (1115) ID
                                                      2003 KUNM 90.1 NM Albuquerque (860) loc psa
   1600 KUNC 91.5 CO Greeley (930) ID
                                                            KRST? 92.3 NM Albuquerque local ad
   1603 KVMT 104.7 CO Vail (875) loc. nx
                                                      2008 KGNC 97.9 TX Amarillo (1115) ID
2015 KLUR 99.9 TX Wichita Falls (1320) ID
2025 KWAS 101.9 TX Amarillo (1115) ID
   1604 KOAQ 103.5 CO Denver (915) loc. nx
1610 KFKZ 96.1 CO Greeley (930) loc. ref
   1615 KRAI
               93.7 CO Craig (790) loc. wx
93.5 NE or CO local ad
                                                    MUF at least 107.5 (probably had KLAK, CO but
         unID
                                                                     nothing identifiable)
   1616 KUNC
               91.5 CO Greeley (930) ID
                                                   6-11-77
               94.5 WY Casper (875) ID first Es 1930 unID 94.7 ?
   1715 KAWY
                         from Wyoming
                                                   6-13-77
   1716 KOLL? 93.5 WY Gillette mx
                                                   Es 1812 KWNS
                                                                   93.1 KS Pratt (1225) Royals BB
   1720 KBYU? 88.9 UT Provo ;c in over 10min
                                                      1815 KICT
                                                                   95.1 KS Wichita (1285) ID
   1729 KLUB 97.1 UT Salt Lake City (570)
                                                   6-14-77
                      new in Concord, new in
                                                   MS 1515 KRWN
                                                                  92.9 NM Farmington (750) loc ad
                                                   6-15-77
                      Es, not new in area
               98.7 UT Salt Lake City ID
   1730 KCPX
                                                   Es 1140 KTNM
                                                                  92.7 NM Tucumcari (1015) loc. ad
   1738 KKFM 96.5 CO Colorado Springs (915)
                                                                 94.5 TX Lubbock (1155) ID
89.1 NM Albuquerque (860) ID
90.1 NM Albuquerque (860) local
                                                      1600 KLBK
                           o/r KOIT
                                         ID
                                                      1620 KANW
   1745 KDJQ
              97.9 CO Pueblo (930) ID in
                      stronger than most SF
                                                                                       references
                      stations
                                                      1635 KPAR 100.3 NM Albuquerque (860) local
  1750 KIIQ 102.7 CO Manitou Spr. (915) ad
                                                                                       advertisements
        KULL 94.5 KS Scott City (1125) ID
                                                      1645 KCOT 104.7 TX Lamesa (1170) ID
                      solid for 10min+
                                                  6-16-77
  1800 KZLO 100.7 CO Pueblo (930) ID
                                                  tr 2335 KPRA 92.5 CA Paso Robles (175) ID new
        KVMN 98.9 CO Pueblo (930) loc. ref.
                                                                             station in Concord
  1805 KYOT 96.7 CO Sterling (1000) net nx 6-17-77
  1815 KPIK 93.9 CO Rocky Ford (975);S
1817 KQIX 93.1 CO Grand Junction (720)ID
                                                  tr 2250 KFMI 96.3 CA Eureka (220) local
                                                                             references
  1818 KREX? 92.3 CO Grand Junction
```

The unIDs listed for 6-10 are only those I think I have a chance to identify. There were others, notably stations on 90.1 while UT and CO were in, and stations on 104.3 and 107.5 while CO was in. On 6-15 while Albuquerque was in, there were unIDs on 88.3, 92.3, 93.3, and 99.5. Not much doubt who they were, but no hard evidence. Es on 6-15 lasted over 3 hours (1600-1900) but I've suppressed the repetitions of Amarillo and Wichita Falls (was too lazy to log in the times they were in). Rather frustrating day, unlike 6-10, when stations stayed put long enough to be identified!

If the logging list makes it sound like I was in two places at once, by the way, that's because I was! I'd park the Sherwood on some easy signal (KBYU or KULL, e.g.) while

scanning for talk with the Heathkit.

Total now at 309, counting frequency changes (10). Hopefully, verifications of the tentatives will be raising that total in the next few days.

(Some nice catches John; Thanks for reporting. And a reminder to all DXers that you can really help others by sending a report of your veries to Tom Yingling and QSL Corner ... dsc)

## The TV-DX Log

by Morrie Goldman, WA9RAQ 5815 North Christiana Ave. Chicago, Illinois 60659

Logs of one sort or another have been important to man since the day he first learned to graphically record things he saw. Even before he devised an alphabet, man recorded such information as the number of animals he killed or how bad a storm was by painting pictures on the walls of his cave.

For the TV-DXer, a log is something special, and it seems that there are as many ways to keep a DX log as there are DXers! Every DXer has his own preference regarding how to record information of stations received. Many DXers do have this much logging policy in common, however: keeping two logs, one a formal log and the other a running log.

The running log is usually a note pad with just about every detail written

down. Example:

Oct. 20, 1976
0440 Several MS bursts of WCBS-2 w/TP
0451 WJBK-2 w/TP weakly by tropo
0510 UnID-4 by MS to SW with TP and
large "TV" in top left and "4"
in top right. No call noted.
0530 WOTV-8, WTOL-11, KFVS-12
Oct. 21, 1976
2000 Noted auroral hash up to ch 13
2015 CJBR-3 w/talk show and ad for
"Bill's Gas Station on 12th St."
ID with temp (29°) at 2017.

You might not want quite this much detail, but remember, it may be a useful reference source at a later date. Make sure that you include enough program info, ads seen, etc. for your report to the station if you seek verifications (QSLs or "veries").

Your formal log can be kept in any of a number of ways. Some DXers prefer listing their stations received by channel, others by location, and still others in order received. The most basic form of a formal log would include only a list of call letters of stations received. More complex forms might include transmitter location, date and time of reception, audio and video signal quality, whether a QSL request was sent and received, etc. Shown below is the form which I employ in my formal log. The (D) after times indicates DST.

DATE	TIME	CALL/CH	LOCATION	VFD	PHOTO
10-5-76	0530(D)	WKBW-7	Buffalo NY	X	X
10-5-76	0605(D)	CHCH-11	Hamilton ON		X

The log is kept in a loose leaf binder, along with card and letter verifications and DX photos. Pages are protected by plastic covers; these are cheap and are really a must for protecting pages and veries.

We mentioned briefly that it may be a good idea to keep your notes as detailed as possible for later reference. Projecting ahead to when this information might be needed, let's examine a hypothetical opening by reading the notes:

June 3, 1977
1118 Noted Es, SW, strong on chs 3 & 4
w/CCI on local 2.

1120 UnID-3, WSW w/local news program 1121 Same 3 w/local spot for "Williams Radio Sales" on 5th Street

1125 KGBT-4 with tech trouble slide 1128 KIII-3, 20 kHz offset with UnID-3.

1200 KMOL-4 w/news and WOAI radio promo UnID-3 IDs as "Big 3." Both ABC and CBS logos shown.

Reviewing the running log, you know from offset observation, as recorded in notes, that KIII is 20 kHz with the unID station. By checking a station list such as WTFDA's TV STATION GUIDE, you find that KIII is a 3- offset, which would make the unID station a 3+. You now know several facts about the unID mystery station: it is a 3+ offset, probably in the area of Texas (all other stations identified were from Texas) and the station is affiliated with both the ABC and CBS networks. From this information it would appear that the unID is KBTX-3 Bryan TX. But to be certain, a call to Bryan directory assistance (a no-charge call) reveals that there is indeed a "Williams Radio Sales" on 5th Street. You've solved your unID!

Wi	1118	am J.	Draeb Rllis St	R.R.	#2	Kewaunee, Wiscon	sin 542	216 (1	OT)
May	Y			30 Es	1258	WTVY-4 AL 954 WFBC-4 SC 725 WBTV-3 NC 736 WCSC-5 SC 916 WWAY-3 NC 882 WFMY-2 HC 718 WUNC-4 NC 749 WEDU-3 FL 1191 KWGN-2 CO 952 KOA-4 CO 952 KTWO-2 WY 947 KID-3 ID 1214 KMID-2 TX 1176	6 Es	1620	WJBF-6 GA 823
7	Es	2058	WESH-2 FL 1130		1557	WFBC-4 SC 725		1625	CJBR-3 QB 951
			WEDU-3 FL 1192		1616	WBTV-3 NC 736			CJCB-4 WS 1350
			WTVJ-4 FL 1368		1620	WCSC-5 SC 916		1631	CHSJ1-6 MD
		2107	WTHS-2? FL T		1625	WWAY-3 NC 882		1633	CHSJ-4 NB 1085
8	Tr		WLEX-18 KY 473		1631	WFMY-2 NC 718		1645	CFCM-4 QB 803.
			WKYT-27 KY 473		1640	WUNC-4 NC 749			CJCB1-6 NS
			WTVQ-62 KY 473	31	0825	WEDU-3 FL 1191		1700	CKCW-2 NB 1117
11	Rs	2113	CFAC-2 AT 1310	-	1415	KWGW-2 CO 952		1715	CBHT-3 NS 1170
100		100	CFCN-4 AT 1310			KOA-4 CO 952			CJCH-5 NS 1170
		2130	CHAT1-4? AT T		1502	KTW0=2 WY 947			CRIT-5 NS 1350
			KRTV-3? MT T		1629	KTD-3 TD 1214		1805	WEST-3 CFF T
12	Po			Tune	1023	HED-2 ID 1214		1830	FRNW_3 WH 1103
12	DD		& NM area"	1 80	10EE	KMID-2 TX 1176 KPDX-3 TX 945 KWAB-4 TX 1135 KACE-3 TX 1143 KMOL-4 TX T KMOL-4 TX T KMOL-4 TX T MINUTA JM 1103 CKPR-2 ON 300 CHFD-4 OK 300 WLBT-3 MS 866		1000	KAMR-4 TX 991
45	man		OC NW STAY	l Es	1000	AMID-S TA 1110		24.42	PURE 3 MY OAS
15	TI	0125	WKEF-22 NM 368			WWAD A MY 4475		2172	KFDX-3 TX 945
		0000	W39AA-39 IN 268			KWAD=4 TA 1155		2120	KWGN-2 CO 952
			WLKY-32 KY 437		4400	KACE-5 TA 1145			KOA-4 CO 952
		0133	WXIX-19 KY 400		1102	KMOL-4 TX T			KRMA-6 CO 952
			WCET-48 OH 400		1300	KENW-3 MM 1103		2136	KTWO-2 WY T
	Es	2301	WRAR-3 FL 986	Tr	2145	CKPR-2 ON 300			CJBR-3 QB 951
16		1430	unID 2-5 south			CHFD-4 ON 300			CFCH-4 QB 803
18	Tr	0919	KYIN-24 IA	2 Es	1100	WLBT-3 MS 866			CKONT-5 QB
			Mason City 300		1130	WMAB-2 MS T			Sainte Foy 803
			" 4 offset"	3	1100	- "weak signals			CHAU-5 QB T
19	MS	2159	KOA-4? CO 952		1700	WLBT-3 MS 866 WMAB-2 MS T "Weak signals on chs 2-4" KDNI-30 MO 432		2220	KAUZ-6 TX 945
21	Bs	0930	KMOI-4 TX 1213	Tr	0715	KDNI-30 MO 432		2224	KTVY-4 OK 815
		1530	KENW-3 NM 1103	Rs	2015	KENW-3 NM 1103	-//	1045	CJRR-3 OR 951
		4534	KUBC-45 MA d	A	1525	Wwools obe 2-48	8	0827	WEDU-3 FL 1191
		1004	KAMR-4? TX T	7	2007	"weak, chs 2-4"	•	0900	KYW-3 PA 705
25	Mas	0640	London II's 328		2037	VEWW_3 NW 1103			WPVI-6 PA 705
		0040	Witchener We		-031	KAMR-4 TX 991			WCBS-2 NY 740
		0720	Toronto III a			FOR A NR R			
		0740	Toronto U.S			AUD-4 NM I			
		0145	TOURS TOWN U.S		2402	"weak, chs 2-4" KENW-3 NM 1103 KAMR-4 TX 991 KOB-4 NM T KNMR-5 NM T KNMR-5 TX 1176	0	0440	WFSB-3 CT 767 KDUH-4 NB 767
			MM 190-45 On 406		2102	KHLLD-Z TA 11/6	9	0110	KDUH-4 HB 767
			MADI-SA LW 400					0120	KUTV-2 UT 1264
			WSEE-35 PA 405		2115	KTXT-5 TX T			"WBAY-2 off"
			WAKR-23 OH 380			KWAB-4 TX 1135		0125	KWGN-2 CO 952
26		0745	WLEX-18 KY 473			KDFW-4 TX T	258	0127	KTVN-2 NV
			WKYT-27 KY 473		2158	KDBC-4 TX 1350			Remo 1671
			WKLE-46 KY 473	5		WCBD-2 SC 916			"state #43"
			WTVQ-62 KY 473		0753	WCIV-4 SC 916	Es	0137	KOA-4 CO 952
			WXIX-19 KY 400		0758	WUND-2 NC 840			KTVS-3 CO 837
			WCET-48 OH 400		0814	WCBS-2 NY 740		0200	KTVX-4 UT 1264
			WCVN-54 KY 400			WNBC-4 NY 740		0203	KSL-5 UT 1264
			WKZT-23 KY 473		0817	WNEW-5 NY T		0217	KID-3 ID 1214
			WKS0-29 KY 538			WFSB-3 CT T		0220	"everything
			WKMR-38 KY 487			FYEL X DA M			gone
			WBAK-38 IL 551	Tr	0837	WUTY-29 NY 445			"Es starting
			WEON-52 EV 437			WUTV-29 NY 445 CICO18-18 ON 328			again to south"
			WKPC-15 KY 437.	Es	0900	WEAR-3 FL 986		0935	WRSH-2 FT. 1130
		0812	WKMJ-68 KY 437		0904	CICO18-48 ON 328 WBAR-3 FL 986 WBDU-3 FL 1191 WRBU-3 GA T WTY-4 AL T WCBD-2 SC 916 WUND-2 NC T CHSJ-4 NB 1085		0940	"no time to
			WKBN-27 OH 420		1152	WRBT-3 GA T		1140	wotch" WITE oh 6
			KDNI-30 MO 432		1172	WITTE A AT. IT		4F00	WAVELL MUF CHO
		4117	WOSU-34 OH 395		4540	MUDD 3 GG 046		1500	TOBA 2 GO 776
			WKEF-22 OH 368		1740	שוואות אולים שו		1500	MUTATO GU 110
			WDMD 46 OH 768		4550	OTOT A TO ACC			
			WPTD-16 OH 368		1222	CHSJ-4 NB 1085		1700	KTVS-3 CO 837
			MATE-50 OF 300		1002	WGDT-2 MA 840			KDUH-4 NB 767
			WUAB-43 OH 340		1011	CBH/I-3 NS 1170			KOB-4 NM 1200
			KYIN-24 IA 300			WLBZ-2 ME 925	5.66	2040	WEDU-3 EL 1192
200			KHIN-36 IA 457			WABI-5 ME 925	Tr	2205	KHIN-36 IA 457
29		1930	Youngstown U's		1625	CKCW-2 NB 1117			KYIN-24 IA 300
			WAKR-23 OH 380			CBIT-5 NS 1350			KSIN-27 IA 463
			Cleveland U's			CJCB1-6 NS		2208	KUNI-30 MO 432
30	Es		WESH-2 FL 1130	6	0840	KDFW-4 TX 957			WOSU-34 OH 395
1.T. ESTA		1234	WEDU-3 FL 1191		0854	KXAS-5 TX 972	10 Es	1100	KRTV-3 MT 1159
			WJXT-4 FL 1039		0900	WEDU-3 FL 1191	Tr	2030	WTIU-30 IL 376
			WCBD-2 SC 916			KTBS-3 LA 910			WBAK-38 IN 348
		1240	WSAV-3 GA 933			KFDX-3 TX 945		-	WTWO-2 IN 348
		,	WSB-2 GA 768			WEDU-3 FL 1191			WLKY-32 KY 437
		1255	WCIV-4 SC 916			WCIV-4 SC 916			
		,			100				WDRB-41 KY 437

1000	Table 1		Figure 1990 of the second
William J. Draeb (cont: June 10 Tr 2030 WEHT-25 IN WKSO-29 KY 2040 WUSI-16 IL WVUT-22 IN WKSO-53 KY 2113 WKGB-53 KY 2140 WATI-36 GA "same offset as W 2140 WHAR-46 GA "10 kc off WKLE" 2140 WTVK-26 KY 2208 WHAS-11 KY 2221 WTCG-17 GA WKON-52 KY 2249 WFBO-42 OF 2354 WKSN-27 OF 42534 WKSN-27 OF 4253	nued)	(AT) O MES 704 O4 73	- 4020 WHOT 4 PE 404E
June	14 15 1002 WM	AD=2 MS (84 21 K)	s 1230 KMOL-4 TX 1213
MKSU-30 KA	38 WT.	RA-3 MS 866	12/5 WATC-/ TA TA
2040 WUST-16 TL	02 1814 WW	T=4 TA 1028	KCKN-6 TX T
WVUT-22 IN	05 Tr 2035 KH	IN-36 IN 457	1252 KDFW-4 TX 957
2113 WKGB-53 KY	30 2045 KC	BJ-17 MO 450	KMID-2 TX 1176
2127 WKZT-23 KY	73 KD	NI-30 MO 432	1300 KFDX-3 TX 945
2140 WATI-36 GA	T WO	SU-34 OH 395	1430 KENW-3 NM 1103
"same oliset as w	WITTER TO THE WITE	MB-40 IN 336	1811 KACB-3 TX 1143
#10 kg off WETEN	2100 177	MA-41 MU 222	1015 WEAK=5 FL 986
2140 WTVK=26 KY	26 2111 KW	TC=27 MO 588	WDTO-2 AT. 925
2208 WHAS-11 KY	37 15 Es 0120 KE	NW-3 NM 1103	WTVY-A AT. 93A
2221 WTCG-17 GA '	68 KO.	A-4 CO 952	2056 WESH-2 FL 1130
WKON-52 KY	.37 0140 KW	GN-2 CO 952	2030 WTHS-2 FL T
2249 WPBO-42 OH	61 Tr 0825 WM	UL-33 WV 498	WIVJ-4 FL T
2334 WKBN=27 OH 4	-20 WO	SU-34 UH 395	2100 WJXT-4 FL T
11 0(0) WIRL—32 KI 4	44 Re 0830 VA	MU-3 TA 402€ 22	0949 WORT A NO 770
1745 KKWS-5 TX 13	14 Tr 2010 KT	TNE_21 TA T	0825 WMARL2 MS 1130
"other unIDs	w KY	IN-24 TA 300	WESH=2 FT, 1130
Tr 2218 KCBJ-17 MO	50 2016 KO	ZK-21 IA 588	0830 WNGE-2 TN 585
KMTC-27 MO	88 KM	TC-27 MO 588	WLBT-3 MS 866
12 Bs 0900 CBHT-3 NS 11	70 KD	NI-30 MO 432	0840 WBRZ-2 LA 1002
0905 WLBZ-2 MK	25 2023 KPI	JB-15 MO T	0849 WCBD-2 SC 916
CTCU_E NO 4	70 2020 KB	MA-41 MU 525	WCIV-4 SC 916
CICHE-6 MS	2110 10	TN 36 TA 457 Th	" 2030 MMD 2020 T
0920 WFSB-3 CT	T 16 Es 1130 un	IDs 2.3.4 S.	WKRN_27 PA 420
0935-1110 "can't	DX" 2007 uni	IDs 2,3,4 S.	2127 WTIU-30 IL 376
1110 CJBR-3 QB 9	51 17 1559 KF	DX-3 TX 945 23 VX-4 UT 1264 TV-2 UT 1264 ID-2 south BT-2 FL 1372 Es	WKBN-27 PA 420 2127 WTIU-30 IL 376 0727 WMUL-33 WV 498
CFCM-4 QB	T 2000 KT	7X-4 UT 1264	Youngstown U's
1623 KTVS-3 CO 8	67 49 0047 mm	rv-2 UT 1264	0748 WJET-24 PA 405
1635 KDUH-4 NE 7	7 10 0011 um	LD=2 SOUTH RM_0 FT. 1370 F:	WSEE-35 PA 405
1730 CPCM-4 OB 8	03 WR1	BT=3 GA 853	1015 KUN-4 UN 0E2
CJBR-3 QB	51 WIT	7J-4 FL 1372	KWGN-2 CO 952
1738 WGBH-2 MA 8	40 WP	FV-5 FL 1305	1022 KRMA-6 CO T
1800 CHSJ-4 NB 10	85 2013 WES	00-3 FL 1192	1024 KENW-3 NM T
CKCW-2 NH	T WE	SH-2 FL 1130	KLNE-3 NE 669
WART-S MR	25 2017 WIT	TY-6 RT. 4	1049 RDUH=4 NB 767
1805 KTVX-4 UT 12	64 WC	FV-6 FL 972	WSEE-35 PA 405  S 0959 KTVI-4 OK 820  1015 KOA-4 CO 952  KWEN-2 CO 952  1022 KRMA-6 CO T  1024 KENW-3 NM T  KINE-3 NE 669  1029 KDUH-4 NE 767  KWNB-6 NE 738  KTVS-3 CO 837  1100 KYCU-5 WY 900  KOAA-5 CO T  1130 KHAS-5 NE T
KUTV-2 UT 12	64 2026 WJZ	IT-4 FL 1039	KTVS-3 CO 837
1943 KTWO-2 WY	47. 2146 WD	CQ-2 AL 925	1100 KYCU-5 WY 900
2000 KID-3 ID 12	14 2205 WUJ	T-5 FL T	KOAA-5 CO T
13 0857 CJER=3 QB 9	1295 WILL	IS-2 FL T	1150 KHAS-5 NE T
Ta Tume	56 WCF	3D-2 SC T	1234 KTWO_2 WY 047
"running CBC TP	1237 WB/	AR-3 FL T	1658 WEAR-3 FL 986
with call"	1247 WRI	ML-3 GA 853	1830 KATC-3 LA 1026
1700 KRTV-3 MT 11	59 1255 WKF	RG-5 AL 967 24	1100 KYCU-5 WY 900 KOAA-5 CO T 1130 KHAS-5 NE T 1152 KNOP-2 NE 710 1234 KTWO-2 WY 947 1658 WEAR-3 FL 986 1830 KATC-3 LA 1026 1232 WCBD-2 SC 916 2012 WPBT-2 FL 1372 WTVJ-4 FL 1372 WSSH-2 FL 1130 2033 WEDU-3 FL 1192 2035 WSAV-3 GA 933
14 1135 WEDU-3 FL 11	92 WSJ	3-2 GA 768	2012 WPBT-2 FL 1372
WISH-2 FL 11	70 WIN	71-4 AL 934	WTVJ=4 FL 15/2
WTVY_A AT.	74 1745 WCF	10-2 SG 016	2022 WEDIT-2 FT. 1102
1155 WJXT-4 FL 10	39 WCI	TV-4 SC 916	2035 WSAV-3 GA 933
MERIC-) PM 3	OO . WEE	37-C LT 1317	2058 WJXT-4 FL 1039
WRBI-3 GA	53 WTV	J-4 FL 1372	2137 KMOI-4 TX T
1300 WKRG-5 AL 9	67 2045 KAT	C-3 AL 1026	KIII-3 TX T
1407 WDIQ-2 AL 9	25 2100 WAT	enwood 781 25	2330 KTBS-3 LA 901
Birmingham 7		D-2 TX 1176	0004 KTBS-3 LA T 1745 KMOL-4 TX 1213
WAGA-5 GA		TW-3 NM 1103	1803 WEDU-3 FL 1192
1700 KWGN-2 CO 9	52 KAN	R-4 TX T	2043 WCBD-2 SC 916
		B-4 TX 1135 Tr	2125 WTIU-30 IL 376
	52 2152 KFI	X-3 TX 945	WKMJ-68 KY 437
	37 KOE 00 2158 KTX	3-4 NM 1200 T-5 TX T	Indianapolis
"over local		B-3 TX 1143	2150 WKPC-15 KY 437
00			

August 1977

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William J. Draeb (continued)
                                                                                            916
                                30 Es 1715 KCEN-6 TX 1075
                                                                  3 Es 1227 WCBD-2 SC
                                                                               WCIV-4 SC
                                                                                            916
                                        1801 KBTX-3 TX
25 Tr 2150 WLKY-32 KY 437
                                                         1079
                                                                              WCSC-5 SC
                                                                                            916
                                              KPRC-2 TX
             WDRB-41 KY 437
                                                          1118
                                                                         1234 WEDU-3 FL
                                                                                          1192
                                        2020 KAMR-4
                                                      TX
                                                           991
             WKON-52 KY
                                                                        1243 WSAV-3 GA
1541 WLBT-3 MS
                                                                                            933
   Es 2155 KENW-3 NM 1103
KMID-2 TX 1176
                                              KTVC-6 KS
                                                                                            866
                                              WCBD-2 SC
                                                           916
                                                                         1600 WMAB-2 MS
                                                                                            784
             KAMR-4 TX
                                              WCIV-4 SC
                                                           916
                          994
                                                                                           1030
                                                                         1622 WWI-4 LA
                                              WCSC-5 SC
                                                           916
             KOB-4 NM
                                                                              KATC-3 LA 1026
KPRC-2 TX 1118
                                        2038 KENW-3 NM 1103
       2201
            KWAB-4 TX
       2230 KACB-3 TX
2250 KFDX-3 TX
                         1143
                                                                         1627 KBTX-3 TX 1079
WDSU-6 LA 1030
                                July
                          945
       2255 KDFW-4 TX
                          957
                                       1645 KATC-3 LA 1026
                                                                         WBRZ-2 LA
1630 KFDM-6 TX
                                                                                           1002
                                        1700 WBRZ-2 LA 1002
       2257 KXAS-5 TX
                          972
            KBTX-3 TX
                                        1703 KJAC-4 TX 1080
                         1079
                                                                                           1080
                                                                         1700 KJAC-4 TX
             KPRC-2 TX 1118
                                        1707 KFDM-6 TX 1068
                                                                               KALB-5 LA
                                                                                            961
26 Tr 0815 WLKY-32 KY 437
                                              KBTX-3
                                                      TX
                                                                         1730 WEAR-3 FL
                                                                                            986
                                        1713 KPRC-2 TX
             WDRB-41 KY 437
                                                          1118
                                                                               WKRG-5 AL
                                        1800 WSAV-3 GA
WEDU-3 FL
WCBD-2 SC
WESH-2 FL
                                                                                            967
                                                           933
             WKON-52 KY 437
             WEHT-25 IN 420
WCVN-54 KY 407
                                                          1192
                                                                         1734 WDIQ-2 AL
                                                                                            925
                                                                         1940 WCTV-6 GA
                                                                                            972
                                                           916
                                                                         2107 WRBL-3 GA
                                                                                            853
                                                          1130
             W39AA-39 IN 268
                                                                                           1071
                                                                         2110 WUFT-5 PL
   Es 1130 WESH-2 FL
1645 WTHS-2 FL
                                              WTVY-4 AL
                                                                         2140 WTVY-4 AL
                                                                                            934
                                        1815 KALB-5 LA
                                                              T
                                                                         2148 WCBI-4 MS
                                                                                            770
                                                           986
             WESH-2 FL
                                        1823 WEAR-3 FL
                                              WKRG-5 AL
                                                           967
                                                                   4 Tr 0350 KPLR-11 MO
                                                                                            432
             WSAV-3 GA
                                                                               CKSO-5 ON
                                                                                             350
                                              WPTV-5 FL
       1648 KBTX-3 TX
                             T
                                                          1305
                                                                               CKS01-3 ON
                                              WTVJ-4 FL
       1701 WJXT-4 FL
                         1039
                                                                               CKS02-3 ON
       1729 WERZ-2 LA
                         1002
                                        1955 WDBO-6 FL
                                                                          to
                                                                               CIENC-9 OM
                                                                                            350
                                              WUFT-5 FL
                                                              T
             KJAC-4 TX
                             T
                                                                               CJIC-2 ON
                                                                                             200
                          866
                                              WPBT-2 FL
                                                              Ŧ
             WLBT-3 MS
                                                                         0455
                                                                               CKNC1-7 ON
                                                                                            270
                                              WJXT-4 FL
                                                              T
       1735 WCBI-4 MS
                             T
                                             WXXX-19 OH 400
                                                                     Es 0915
                                                                               CKCW-2 NE
       KATC-3 LA
1747 WABG-6 MS
                                  2 Tr 0745
                         1026
                                              WKYT-27 KY 473
                                                                               CBHT-3 NS
                             T
                                                                               CHSJ-4 NB
                                                                                           1085
                           961
             KALB-5 LA
                                              WLEX-18 KY
                                                           473
                                              WTVQ-62 KY
WTIU-30 IL
       1758 WWL-4 LA 1030
2037 WEDU-3 FL 1192
2045 WTVJ-4 FL 1372
                                                                         0930 CJCH-5 NS
                                                                                           1170
                                                            473
376
                                                                         0951
                                                                               CJBR-3 QB
                                                                                            951
                                                                                            803
                                              WKEF-22 OH
                                                           368
                                                                         1300 CFCE-4 QB
                                              WLKY-32 KY
                                                                               CKMI-5 QB
       2050 WUTV-29 MY
                                                            437
                                        0757 WCRT-48 OH 400
                                                                               CHAU-5 QB
       0645 WUAB-43 OH 340
                                                                         1305 WTHS-2 FL
             Youngstown U's
                                              WDRB-41 KY 437
WEET-25 IN 420
                                                                         1306 WRBI-3 GA
                                                       IN 420
             WVIZ-25 OH 355
       0749 WOSU-34 OH 395
WJET-24 PA 405
                                                                         1311 WCBD-2 SC
                                        0811 WBAK-38 IN 348
                                                                         1316 WEAR-3 FL
                                    Es 2017 WEDU-3 FL 1192
                                                                     1643 WUND-2 NC
WTAR-3 VA
Tr 1855 WDIO-10 MN
                                              WPBT-2 FL 1372
             WSEE-35 PA 405
                                              WTVJ-4 FL 1372
WCIX-6 FL T
   Es 1035 WIHS-2 FL 1372
       WTVJ-4 FL 1372
WEDU-3 FL 1192
2011 KMOL-4 TX 1213
                                                                               WDSE-8 MM
                                              WPTV-5 FL
                                        2100 KIII-3 TX 1295
KETX-3 TX 1079
KPRC-2 TX 1118
                                                                         "Both smow free
28
       2130 WUTV-29 NY 445
                                                                         following heavy
   Tr
       2137 WBAR-3 FL
                                                          1118
                                                                         thunderstorms. Wind
                                        1151 WTHS-2 FL
                                                                         switched to NW from
             WTVY-4 AL
                                              WTVJ-4 FL
       1715 KMOL-4 TX
                                                          1372
                                                                         SE for about 1 hour.
30
             KDFW-4 TX
                           957
                                              WJXT-4 FL 1039
                                                                         E - W stationary
                                                                         front in area."
             KENS-5 TX
                         1213
                                              WDBO-6 FL 1164
                                                                         1855 WIRT-13 MW
             KXAS-5 TX
                         972
                                              WESH-2 FL 1130
```

"Es got off to a slow start. Unusual type reception of KTVN-2 on 6-9. Very rapid flutter but slow fading. Other stations received had snow free sigs and slow fading. Had possible KCRI-4 also with same type reception but KOA & KTVX too strong for any ID. All Upper Peninsula Michigan stations snow free on 7-4. WARO-12 noted off the air following hvy thunderstorm (ended here around 1900). Still not on at 2130. Here's a scoop on the reason WAEO-12 is off: from that line of thunderstorms that moved through there (and later through here) they had winds up to 150 MPH which took down their tower. It also toppled a radio tower in Rhinelander. We didn't have much wind here when the storms moved through but there was plenty of lightning, thunder and rain. In lower Michigan the same storms produced tornadoes. This is the second time WAEO-12 was put off the air. The first time (a few years ago) an airplane ran into their tower, toppling it. Lots of DX since 6-8, particularly Es. I did notice an absence of Es from Western Canada, however."

T-2 (1:		D. D. #7 Walanna	T		### ### ### ### ### ### ### ### ### ##
Tuno	oura	H.R.#) KOKOMO,	12	Po	1000 CHAULS OR 1160 21 Rs 1900 WCTV_6 GA
1 Fo	1800	KTTT-3 TY 1102	12	Ho	CROSS A OR T Thomasville 700
1 1113	1804	KGBT-4 TX 1230			1200 KTVO-2 MT 1220 2030 WUFT-5 FL 800
3 1700	2200	KOTR-10 MO 445			KWGN-2 CO 990 WPTV-5 FL T
,	2230	WAAY-31 AL T			1622 KTWO-2 WY 1090 2035 WTVJ-4 FL T
4	0700	KOT-R-10 MO 445			1700 KXLF-4 MT 1372 2040 WEDU-3 FL T
		"under WTHI"			1705 KTVQ-2 MT 1220 2230 KBTX-3 TX 900
Es	1729	CHAU-2 OB 1250			1728 KID-3 ID 1330 22 LS 0706 WAAY-31 AL 410
-		(which one?-bt)		Tr	2155 KHIN-36 IA T 23 Es 1855 KATC-3 LA 793
	1900	KOA-4 CO 990			2158 WHO-13 IA 390 1856 KPRC-2 TX T
		KWGN-2 CO 990			2200 KMEG-14 IA 540 1900 KGBT-4 TX 1230
	2000	KENW-3 NM 1035	13	Es	1730 umID-2 W.N.W. KRGV-5 TX 1210
	2032	KOAA-5 CO 992		Tr	1830 KTTC-10 MN 396 24 1438 WIHS-2 FL 1090
	2100	KRMA-6 CO 990		Es	1859 WPBT-2 FL 1090 25 1003 umID-3 "CB S.E.
5	0845	WEDU-3 FL 925		Tr	2046 KYIN-24 IA 402 It is not Cuba or
	0900	WPBT-2 FL T	14		0700 WTCN-11 MN 485 U.S. Could be Barbados"
	0904	unID-4 Spanish		Es	1230 umID 2-6 south 1128 TV Cubana-3 CUBA
	1029	KWGN-2 CO 990			1617 KDIX-2 ND 970 1130 WPBT-2 FL T
	1100	KOTA-3 SD 940			1630 KOTA-3 SD 940 1135 unid-3 Spanish
6	1729	CHAU-5 QB 1160			1645 KPRY-4 SD 1145 WTVJ-4 FL 1090
		CJER-3 QB 1020			Plerre 7/0 1202 Guba on 2,4,5
	1930	KNOP-2 NE 760			1700 KP10=6 SU 1558 ABFD=5 NU 1512
	2000	KWGM-2 GO 990			RELIANCE 140 1000 ALLIA TA 1102
		TOME 6 GO OOO			1/30 ADS0=7 SU T 1007 1007 1007 1007 1007 1007
	Hah	Anna war in-		The	2400 TTTT_24 TA 402 2012 TOAT=2 AU 1421
	tona	o weep, very in-		TT	WEN_13 TA 306 2300 EWGE_2 CO 990
	OETTS	e. various units			WHITN_36 TA 470 26 Tr 0520 WITC_11 DA 320
	2037	TMTH-7 CO T			KYNR-26 NR T 0525 CKC0-13 ON 350
	2100	KW(91-5 WY 970			2200 KNRS-14 TA 540 0552 KWWT-7 TA 340
	2230	KTVS-3 (0) 886			2203 WHIA-31 WT 339 Rs 1100 WPBT-2 FT 1090
7	1700	CRHB-3 NS 1170			2232 KDTN-11 TA 396 1530 "Canadian ATV
	1703	CJCH-5 NS 1170	15		0630 KMEG-14 IA 540 Maritime net ch 2.4"
8	1830	CPCT-2-2 ON			0645 KEYC-12 MN 470 1615 XEFE-2 Tems 1200
- 13	,0,0	Kearns 700			1700 KTTC-10 MN 396 XEFB-3 NL 1312
9	0930	KOA-4 CO T			2200 WAOW-9 WI 350 1700 CBHT-3 NS 1170
1.72	1200	KOAI-2 AZ	17	Es	3 2153 unID-2 NBC W. CJCH-5 NS 1170
		Flagstaff 1427			"2 hrs behind local" 1800 KIII-3 TX 1102
	1730	KID-3 ID 1330	18	Tr	r 0845 Des Moines V's KCKT-2 KS 695
	1800	KFBB-5 MT 1330	19		0444 CHCH-11 ON 380 28 1800 unID 2,3 W.S.W.
		KXLF-4 MT 1372			0455 KDKA-2 PA 320 2000 KWGH-2 CO T
		KRTV-3 MT 1330			0513 WICU-12 PA 338 2030 unID-2 Spanish
	1900	KTVQ-2 MT 1220		Es	3 1100 KWGN-2 CO 990 2100 KDIX-2 ND T
		WPBT-2 FL 1090		m	KUTA-3 SD 940 "very strong semi-
10 Tr	0653	WAAY-31 AL 410	00	TT	r 2250 WDIO-10 MN T local signals plug-
	0713	WBMG-42 AL 490	20	ES	2400 POWER 2 NOT 4025
	2200	WHAK-46 GA 405			2100 MENT 2 VG COE 30 1000 UTDE 2 FT 1000
		ATTI- 10 GA			2172 KVET-2 KN 037 27 1000 NEST=2 EN 1070
	2205	WDTD 64 mm ms			2000 ENTIRE SET 1177 2172 PERMED 200
	2222	WING 43 MC m			2222 395TD_E W G W 30 4730 FWENT_2 NO 000
	2224	WITHT_11 max m			2240 WOAA_5 CO TO TENUE 3 WHE 40%
11	0043	WOPT-55 TH	21		OGAO KWCM-2 CO 990 KAMB-4 MA 031
11	004)	Crossville 330	-1		1030 WCBS-2 NV 640 1752 KNWR-5 NM 1173
	0410	WTCG-17 GA 485			1032 WNBC-4 NY 1830 KTYT-5 TY 988
	0800	"strong snow-			New York City 640 KMTD-2 TX 1087
	free	signals from			1725 KRMA-6 CO 990 1950 WGBH-2 MA 785
	Knox	ville area"			1759 KCKT-2 KS 695 "band open east &
Es	1500	KDIX-2			1828 WEAR-3 FL 710 west"
12	0850	unID 2-6 Quebec			1830 WKRG-5 AL Present log totals: 597
	235	agreed that is a			Mobile 700
				721 N. O. O. O. O.	
Wicha	e7 T.	Hogen 9224 Cot	tag	A G	Frove Ave. Highland, Indiana 46322 (219)924-2361

 Michael L. Hogan
 9224 Cottage Grove Ave. Highland. Indiana 46322 (219)924-2361

 June (all times are CST)
 8 Es 1830 CJER-3 QB
 July
 3 Es 1758
 CEKMT-4 SK

 9 Es 1730 KID-3 ID
 Idaho Falls
 22
 1128 KPKT-4 SD
 MOOSE Jaw

 1759 KRTV-3 MT
 Fierre
 1958 WEAR-3 FL

 Great Falls
 Fensacola

"All stations above are new bringing log total to only 49 with 15 on Es. States logged are IL,MI,IN,WI,FL,NE,TX,GA,LA,SD,ID,MT, provinces Quebec & Sask."

"Looks like	os 2485 Ivan C a Pat Dyer-siz ne tropo has be	ed rep en nic	ort the	nis month, h what I wou	ul! A	nd or	to ha	ave my dish and
preamp up!	The new locati	on is and WF	intere TV-9 a	estingWDBC are causing	0-6 is a bit	m't a	s much	of a problem cent-channel
neighborhood	e due to being	g high	-pass	filter! Ho	me to	have	VHF a	antenna up in
1-2 weeks:	the dish will h	ave to	wait	4-6 weeks d	lue to	vari	lons de	elaysImally
found someon	ne in town who	WOULD	0012	me Less Than WKRG⊶5 AL	1 1000 <b>417</b>	14 Rs	1952	KOTV-6 OK 905
6 Tr 0850 1	Panama City V's	16	0013	WAFB-9? LA	T		1958	KARD-3 KS 1025
	WFSB-3 CT T			"WLCY-10 an es picture				KCKT-2 KS 1105 KTEW-2 OK 905
	WGBH-2? MA T		terfe	erence due t	0	200.00	2020	KTVY-4? OK T
	WMAR-2? MD T		unusu	al atmosphe  tions'HT!	ric	15 Tr	0745	Tampa-St Pete WXLT-40 FL 180
	plus unIDs "had to leave"		0030	"Heard loca	1			WSAVES GA 160
1635	"CCI 2, 3		2-met	ter hams goi	ng			WTOC-11 GA 160 unID-5 CBS
	WGR-2? NY T CHNB-4 ON 1216		ing n	-contacts backer to Char	le-			WJWJ-16 SC 185
1748	CJOH1-6? ON T		ston,	, Mobile, Mi	Lami		0045	WJCI-22 GA 160
	WHEN-4 NY 986 WPSX-3 PA 856		area,	unID-12 Ø W	YES	16 Be		WEVU-26 FL 250 Orlando:
	CKRN-4? ON T			WCKT-7 FL	191		1020	umID-2
	WTVH-5 NY 1036 CKGN2-2? ON T		0638	WPLG-10 FL WCTV-6 FL	191	17		unIDs 2, 3
	WSYR-3 NY 1036			WVUE-8 LA	525			* unID 2,3
	"2-6 complete-			WCIX-6 FL WTVJ-4 FL	226 187			WCTV-6 FL 226 -unID 2-5
	molished by CCI" WRGB-6? NY T			WTOC-11 FL			, 1117	"Canadians"
1859	CKVR-3 ON 1096	13 At	High	Springs, FI	1:	20	1835	lunID 2-5 "Canadians"
	CKCO2-2 ON 1133 WKYC-3? OH T	ES		KMID-2 TX 1 KENW-3? NM		21	0940	"CCI chs 2,3"
	WBEN-4? NY T		1918	KMOL-4? TX	T			WJBK-2? MI T
	WSYR-3? NY T WGR-2? NY T		2000	KPRC-2 FL KDKA-2? PA	785 T			WJBK-2? MI T
0839	CHNB-4? ON T	Tr		WJHG-7 FL	170		1558	WJMN-3 MI 1253
	CKVR-3 ON 1096 CBLT-5? ON T	Re	2029	WMBB-13 FL KBTX3 TX	820	22	1905	"CCI chs 2,3" "CCI chs 2,3"
0931	CKCO2-2? ON T	Tr	2114	WFLA-8 FL	140	23	1818	WBEM-2 IL 987
	"CCI 2, 3" unID-3 NBC	14	0730	WFLA-8 FL WTOC-11 GA	140			WISC-3? WI T
	"f/out"			WTVT-13 FL	140		no	CCI on 4, 5 at
	"CCI 2" WWJ-4 MI 968			WJCL-22 GA WXLT-40 FL				time-strange" WTMJ-4? WI T
	WKZO-3 MI 1036			WTOG-44 FL			1855	WJMN-3? MI T
	WCMH-4 OH 797 WNEM-5 MI 1041		0735	WSAV-3 GA unID-5 CBS	160	24	1228	4 "CCI chs 2-6 all day"
	wjim-6? mi T			WJHG-7 FL	170		1630	CKGN2-2? ON T
	KTVO-3? MO T WJEK-2 MI 965		0745	WALE-10 GA WREL-3? GA	145 T		1654	CKCO2-2 ON 1133 CKVR-3 ON 1096
	WHBF-4? IL T		0815	WMBB-13 FL	160	25	1620	"t/in: another
	WKYC-3? OH T WCIA-3 IL 951			WEVU-26 FL WEDU-3 FL	250 140			day opening" KXAS-5? TX T
	Panama City V's			WTVM-9 GA	225			KACB-3? TX T
	Panama City V's WJHG-7 FL 274		0843	WCWB-41 GA WMAZ-13? G				KOCO-5? OK T
	WJHG-7 FL 274 WALB-10 GA 244			WUSF-16 FL	140		1700	-1730 unIDs
	WCTV-6 FL 226 WPBT-2 FL 191	Es	1539	WOWI-6 NE KLNE-3? NE	1185 T		1828	WHBF-4? IL T
	WTVJ-4 FL T			KMOX-4? MO	Ť		2059	KIII-3? TX T
Es 1805				KTVI-2 MO	765			KRGV -5 TX 1020
	unIDs 2, 3 WVUE-8 LA 525			WMT-2 IA KHAS-5? NE	T			VIOUSLY by Tr" KRIS-6? TX T
2340	KPLC-7 LA 712			WOC-6? IA	T		2110	KACB-3? TX T
2346	WYES-12 LA 525 WAIL-4 LA 533		1630	KGLO-3? IA KTVO-3 MO	935			WJHG-7 FL 274 KDFW-4 TX 967
2351	WDSU-6? LA T		1648	KUSD-2? SD	T			WFSU-11 FL 230
2355 2358	WMBB-13? FL T WTOK-11 MS T			KMTV-3? NE KSNB-4? NE				WECA-27 FL 221 WMBB-13 FL 263
	WALA-10? AL T			WDAF-4 MO	Ť		2237	WCTV-6 TX 226
								41

		-							August 1977
	Comb	s (continued)				muSv			
June	420 H	2-6 jammed"	28	Tr	0724	WSFA-12 AL 380	1	Es	1737 KGBT-4 TX 1023
21 78 1						WECA-27 FL 221			17/11 VINTO EO MV M
		TVH-5? NY T				WYRA-38 GA 341			1741 KENS-5? TX T
	W	BEN-4 NY 986			0728	WALA-10 AL 415			1742 KIII-3 TX 978 1746 KRIS-6 TX 988 "under WDBO"
	129 W	PTZ-5? NY T			0729	WTVY-4 FL 299			"under WDBO"
		uso to Tease				HOOM PE GHT CAL			1000 BRILLING: IA I
		back, still 2-6" TVO-3 MO 1039				WDHN-18 AL 301			2153 mTDs 2. 4
		anama City V's		Es	1243	KIII-3? TX T	2		0746 "Es starting on 2, but had to go
1000		CTV-6 FL			1430	KFDX-3 TX 1078			to work"
		FSU-11 FL 230			1930	"Es starting			4 477 HT - 1 - 1 - 1 - 1
	K	ATC-3? LA T		_	agai	nhad to leave "			CCI on 2"
		BCA-27 FL 221 ALA-10 AL 415	20	TT		WJHG-7 FL 274 WSAV-3 GA 242			1648 WFSB-3 CT 1034 1708 WMAR-2? MD T WTAR-3? VA T 2340 "Still CCI om
-		KRG-5 AL 417				unID-12 Ø CCI			WTAR TO VA T
2		BRZ-2? LA T			0749	WDHN-18? AL T			2340 "Still CCT om
2	213 W	DHM-18 AL 301				MITAIMS I			
2	317 W	TVY-4 AL 299			0756	unID-2 CCI WALB-10? GA T WJCI-22 GA 242 WTOC-11 GA 242 WFSU-11 FL 230 WMBB-13 FL 263	3		1650 "Ø CCI on ch 2"
2	350 W	DTO-2 AT.			0757	WALD-IOY GA T			1830 KTIV-4 IA 1329
650 07	D	ozier 350			0151	WTOC-11 GA 242			1840 WKYC-3? OH T WTAE-4 PA 815
117	been '	trying for			0833	WFSU-11 FL 230			1842 KDKA-2? PA T
ti	his or	ne since '73				WMBB-13 FL 263			1843 WRWS-5? OH T
	TTAL	W I get it on		Es	1058	WMBB-13 FL 263 WJBK-2? MI T			1843 WEWS-5? OH T 1850 "had to leave"
		ears—life rd"			1728	unThe on 2			1850 "had to leave" 2215 "Return; still in" WDAR-4 NO 1048
28 0	003 WS	SFA-12 AL 380		Tr	2300	Panama City V's			WDAF-4 MO 1048
0'	724 W	BAR-3 AL 401			DI TE	WCTV-6 FL 226			KITV-3 MO 986
		CTV-6 FL 226		Ly			5		
	PE	anama City Vs	1	Tr	0130	WCKT-7 FL 191			ch 2"
	16.2	FSU-11 FL 230		, ISB	1000	mitn-5 & cct			
Ken Sime	on 52	28 Pilgrim Roa	d I	Vest	Pal	n Beach, Florida	334	105	(EDT)
June			12	Tr	2130	WUNG-58 NC Concord W69AA-69 FL	24	Tr	1428 WJWJ-16 SC
1 Tr 1	745 WG	59AA-69 FL 45				WUNG-58 NC Concord W69AA-69 FL unID-26 "CCI Over WEVU" W69AA-69 FL			1628 WJCL-22 GA
2 58 1	959 W	PSB-3 CT 1180			2335	W69AA-69 FL			1936 WRJA-27 SC
20	022 WI	PSX-3 PA T			2777	WILD-SOCCI	- 3		unID-33 CCI
4 Tr 0	730 WE	59AA-69 FL	13		0605	W69AA-69 FL WJCL-22 GA WECA-27 FL	-	720	1200 KYTV-3 MO
18	806 WI	PSB-3 CT 1180			0745	WJCL-22 GA			"from here to about
5 Ks 09	900 WI	PSB-3 CT 1180				WECA-27 FL			2100 with minor breaks FM in with minor breaks FM in with minor breaks FM in with MUE at
17	7AA WC	TA-3 TT.				WIEA-38 GA			breaks FM in with
18	810 WM	T-2 IA				WCWB-41 GA			with minor breaks
18	829 KI	PVI-2 MO			0800	WBCI22 GA WBCA27 FL WYEA38 GA UNID-40 "weak" WGWB41 GA WHAE46 GA WHEY30 GA WJWJ16 SC UNID-2 "weak" WJWJ-16 SC WCBS-2 NY WGSA69 FL			FM in with MUF at
- 40	KI	TVO-3 MO CVR-3 ON			0832	WETV-30 GA			times up to 107 MHz"
6 18 7 18	BEO IN	THS_3 TA		Pa	1745	Walwa-16 SC			1345 KRIS-6 TX
9 19	928 KI	TVO-3 MO		Tr	1745	WIWI-16 SC		The	1836 WTWT_16 GO
19	930 WN	T-2 IA		Es	2000	WCBS-2 NY		11	WR.TA-27 SC
20	000 WA	IVE-3 KY	14	Tr	0430	WCBS-2 NY WC9AA-69 FL WMT-2 IA KTYO-3 IA "at this point tched to FM as			WJCL-22 GA
10 Tr 20	015 WJ	WJ-16 SC		Es	1317	WMT-2 IA			1925 unID-33 CCI
	Me	CA_27 FT.			1475	KTVU-3 IA		Es	2143 KIII-3 TX
12 21	130 WE	BA-14 SC T			T swri	tched to FM as	26	Pe	0854 WAVE-3 KY
	WJ	WJ-16 SC				were unread-	20		1859 WPSX-3 PA T
ENCT OF	WC	CB-18 NC			able;	MUF went in		Tr	1859 WJCI-22 GA
		arlotte				Hz range"	27		1330 unID-2
		CL-22 GA LO-25 SC		TT	1001	WJWJ-16 SC WJCL-22 GA		Tr	1735 WJWJ-16 SC
		JA-27 FL		ES	1930	WDAF-4 MO	28		WJCL-22 GA 0630 WJCL-22 GA
		PM-33 SC	19	Tr	0630	WJCI-22 GA	20		0648 WJWJ-16 SC
	FI	orence	20	Es	1933	unID-3 CBS			WTCG-17 GA
		ET-36 NC	21			unID 2-4			WEBA-14 SC
		IK-35 SC NJ-39 NC	-			WJCL-22 GA			WHAE-46 GA
		lmington	23			WJCI-22 GA WJWJ-16 SC			0654 WECA-27 FL WKAB-32 AL
22	ZOO WI	VI-42 NC			2115	WKYC-3 OH			WYBA-38 GA
40	Ch	arlotte	24			unIDs 2, 3			0726 WCWB-41 GA
12									

# WESTERN TV-DX

Doug Everitt 1710 W Maine Enid OK 73701 (405) 233-4890 Deadline: 10th

Es conditions in the WTV zone seem to have been good over the past reporting period, and in Manitoba, both double-hop skip to Alaska and hi-band skip were noted. In Oregon, some slight hi-band activity was noted, and there was a double-hop opening into South Texas.

Don't forget that August is one of the best months of the year for Meteor Scatter DXing, with several good showers spread throughout the month. Why don't you give it a try?

Due to insufficient response, the MS/Au on Built-In Aerials listing has been cancelled. These reminders: underlined loggings are new to the reporter in question; those with a question mark are tentative; all others are assumed relogs, unless the reporter does not underline new loggings in the first place. I'd like to encourage all reporters to underline their new ones; don't be ashamed if you're in a new location, or just beginning, and have a lot of new loggings. After all, you have to start somewhere. Please restrict your tentative loggings to a reasonable number, and do not make wild guesses. Also, bear in mind that distance figures are in miles, unless noted as km. For the time being, it would probably be best for North American reporters to stick with miles.

By the way, I'd like to encourage early mailing of reports... recently, reports from within the U.S. have taken as long as five days to reach me, and many of you have been cut-

ting it awful close to the deadline, so please bear this in mind when mailing.

We have an overseas reporter this month, in the person of Terry Robinson, of Woodend, Victoria, Australia. We hope to receive regular reports from you, Terry!

Fred	McCori	nack,	Des	Lacs, No	rth D	ako	ta 5	8733	(CI	T)	(Ma	y & J	une	)					
9-inc	h b&w	recei	ver,	JFD CW-	48 an	ten	na												
113 Es	1226	unIDa	3 2 8	. 3	06	Es	1510	WBTV	7 3	NC	1375		17	Es	1759	KATC	3 L	Α.	
J 04 Es	1918	KATC	3 L	.A			1529	WFM	2	NC	1390				1805	KPRC	2 T	X 1	330
	2030	MUF !	107.9	3 A A A A A A A A A A A A A A A A A A A			1600	MUF	107	.9	MHz				1829	WPSX	3 P.	A 1	230
	2143	KRON	4 0	CA 1275			1700	WSY	3	NY	1275		-		2200	KTEW	2 0	K 8	80
	2153	KENW	3 N	M 970				WEWS	5 5	OH	1075		19	Es	1055	MUF 9	0.7	MHz	
05 Es	0755	WTAR	3 7	/A 1490			1930	CKR	N 4	PQ	1030				1157	WMAB	2 M	8 1	215
	0829	WBTV	3 1	NC 1375				MUF	107	.9	MHz				1300	WREC	3 T	N 1	085
	0845	MUF :	106.5	MHz			2345	CBO	r 4	ON	1220	(PQ)			1313	MUF 9	5.5.	MHz	
	0900	WRCB	3 7	N 1230	07	Es	0958	WAVI	E 3	KY	1040	(IN)			1329	KBTX	3 T	X 1	245
	0930	WNGE	2 7	N 1125			0959	WTW	0 2	IN	940				2155	KIEM	3 C	A 1	215
	0959	WCMH	4 (	)H 1075	17	Es	1000	WHS	V 3	WV	1175				2159	KOTI	2 0	R 1	060
	1002	MUF 5	94.9	Miami Bch		-05000	1059	WMAJ	B 2	MS	1215				2258	KORK	3 N	V 1	085
	1030	WREC	3 7	FN 1230 FN 1125 OH 1075 Miami Bch FN 1085 FN 1420 (A GA 1335 MHz FX 1330 O MHz			1100	WEA	R 3	FL	1420	(AL)			2330	KTVK	3 A	Z 1	165
	1052	WEAR	3 F	L 1420 (A	L)		1129	WLB'	r 3	MS	1250					KPHO	5 A	Z 1	165
	1113	WAGA	5 (	GA 1335			1200	KJA	C 4	TX	1310				2354	KDBC	4 T	X 1	165
	1200	MUF	96.5	MHz			1229	WBR	Z 2	LA			25	Es	0110	KCRA	3 C	A 1	210
	1230	KPRC	2 7	rx 1330			1253	MUF	89.	9 M	Hz				0113	MUF 9	1.3	MHz	
	1400	MUF	107.	MHz			1259	WNG	E 2	TN	1125			tr	0135	CBKFT	13	SK	
06 Es	0845	MUF	107.	MHz			1355	KOR	K 3	NV	1085				R	egina,	205	mi.	
00 10	1129	KARK	4 /	AR 1040			1529	KVI	0 6	CA	1215			Es	2130	KALB	5 I	A	
	1130	KESM	5 /	AR 955			1630	WLB'	T 3	MS	1250		26	Es	0300	KDFW	4 T	X 1	110
	1228	KENM	3 1	NM 970			1641	WEAT	R 3	FL	1420	(AL.)	-	-	1029	KMID	2 T	X 1	115
	1300	UMAR	2 1	WS 1215			1700	WBR	7. 2	T.A					1308	KOTI	2 0	R 1	060
	1330	KTEW	2 (	MS 1215 OK 880				KET	S 2	AR	1065		*	19	Es 2	300 KT	'VU	2 0	A
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21 Es	1900	KOAI		1-1-1			2000	MID	1 3	F 1.	. 1230			ES	1625	E Co-	, , ,	2 6	4
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30 E				OR 1220			0125	KDK	A 2	PA	1041					WPVI	6 F	PA 1	1260
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				TN 1048		ir	weak	ly t	il C	500	)					WFBC WCIV WCVB WPTZ	5 1	NY I	1170
		2500	1000													-			100

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John Anderson continued ...
06 Es 1930 WSYR 3 NY 1098 09 Es 0055 MUF 5 0100 WDTN 2 OH 927 WKRG 5 AL 1372 WTTV 4 IN 877
                            09 Es 0055 MUF 5
                                                        25 Es 2200 KNME 5 NM 1085
2300 KMID 2 TX 1233
                                                         26 Es 1630 WFBC 4 SC 1240
                              0110 WBBM? 2 IL 693
     2032 CCI on 8 south
                                                               1720 WSB 2 GA 1270
     2037 CCI on 9 south
                                                        tr 2040 WTCN 11 MN 360
                               0127 WNGE 2 TN 1048
     2045 ABC stn on 10
                               1830 KTVY 4 OK 958
                                                         30 Es 1655 KDBC 4 TX 1300
                                  KOCO 5 OK 958
                                                         1730 KWAB 4 TX 996
     2055 & 2126 CCI on 8
                              1900 KDBC 4 TX 1300
     2107 KALB 5 LA 1253
                                                                   (new mode)
                                                         1800 WTVY 4 AL 1392
     2200 WSYR 3 NY 1098
                                  XEJ 5 CH 1300
     2220 WGR? 2 NY 1000
                                      XEPM 2 CH 1300
                                                            1900 WMAB 2 MS 1185
                                                            2000 KALB 5 LA 1263
          CBLT? 5 ON 939 1928 KOB
                                            4 NM 1085
                                                         2100 KENS? 5 TX 1380
          WBEN? 4 NY 1000 11 Es 2030 KUTV 2 UT 927
                             2200 KAID 4 ID 986
          WCBI 4 MS 1182
                                                           2115 KNME 5 NM 1085
     2238 CCI on 8
                                      KBCI 2 ID 986
                                                         July 1977
(you don't note it as such,
                            12 Es 1230 KUTV 2 UT 927
                                                         01 Es 0056 KUTV 2 UT 927
                             1255 KETS 2 AR 1045
                                                         0058 KTVU 2 CA 1477
but I assume the rest of the
                                  1700 WTTG 5 DC 1226
                                                               0105 KTVN 2 NV 1284
report is from Lowe Farm,
                                1730 WRC 4 DC 1226
John. Looks like you ought
                                                         0125 KCRA 3 CA 1398
                                1830 KNME 5 NM 1085
                                                         Au 0130 on 2 thru FM
to move to Altona! ..de)
07 Es 0800 unID 2 Quebec
                            2200 KNBC? 4 CA 1500 0215 KDLO 3 SD 305
                                                         Es 1200 WBRZ 2 LA 1337
     1955 WGBH 2 MA 1344 20 Es 1830 WDIQ 2 AL 1380
     2223 CBOT 4 ON 1052
                                2058 KJAC 4 TX 1344
                            2058 KJAC 4 TX 1344
2200 WKRG? 5 AL 1372
2358 KMOL 4 TX 1380
                                                               2000 Mexican 2
          MUF 5 briefly
08 Es 0014 KDKA 2 PA 1041
                                                           1239 KUTV? 2 UT 927
     1800 KOCO 5 OK 958
                            21 Es 0005 MUF 107.5 MHz 03 Es 1600 WSJK 2 TN 1150
          KFDX 3 TX 1064
                                                                   WTVY 4 AL 1392
                            22 tr 0035 CBKFT 13 SK 342
                                  0040 CKX 1 11 MB 170
     1806 KCKT 2 KS 758
                                                              1700 WWL 4 LA 1386
     1930 WFMY 2 NC 1266
                                  0045 CKCK 2 SK 324
                                                         (Looks like a good summer
     2000 WRAL 5 NC 1317
                            25 Es 2150 KPHO 5 AZ 1320
                                                        up there this year ... de)
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Es on the 6th of June was very intense, with definite CCI on semi-local 8 and local 9, but no hi-band IDs. I've never seen hi-band skip before; it certainly was exciting. Also memorable was the opening to Alaska during the wee hours of the 5th. Altogether, it has been a good Es month, with many openings into FM and above. 73 and Good DX = John

Terry Robinson, Lot 92, Russell Ave., Woodend, Victoria, Australia 3442 (GMT +11)
Hills FFC-3 aerial, hi-gain preamp at 10.67m, Stolle rotator
January 1977 February 1977

| 25 tr 0830 ABGN 7 NSW 375km | 25 tr 0942 CTC 7 ACT 460km | 09 tr 2145 TNT 9 TAS 500km | 0929 SAS 10 SA 590km | 27 tr 0930 ABNT 3 TAS 500km | 16 tr 2339 ABGV 3 VIC 150km | 0931 ABS 2 SA 590km | 0935 ABKT 11 TAS 300km | 2345 GMV 6 VIC 150km

The local channels that can be received here are: ATV-0, ABV-2, HSV-7 & GTV-9 (from Melbourne), ABC-TV-3 & BTV-6 (from Ballarat), in two different directions; the rotor helps here. Surprisingly, we can also get a (monochrome) picture from GLV-10 (Sale) at 140km. This channel relays BCV-8 in nearby Bendigo, but BCV cannot be received by me because it is crammed into the 7 MHz between HSV-7 and GTV-9 (Melbourne). I am quite surprised that we can receive Ballarat television, as the transmitters are at 140km over mountainous country, and the pictures we receive (after amplification) are first class, even allowing for the rather difficult problem when receiving PAL color. No doubt, NTSC color would be easier to receive, because the NTSC color subcarrier is at 3.37 MHz, while the PAL subcarrier is at 4.433 MHz, meaning the color would drop out of a PAL picture sooner than it would with a NTSC picture. (This report passed through several sets of hands before reaching this column, so we apologize for the delay in getting it into print. In any case, welcome aboard, Terry! And yes, my fellow North Americans, there is a channel '0' there....de)

December 1976 04 Es 2100 XHBC? 3 BCN 1200 11 Es 2000 KTVS 3 CO 1100	1
December 1770	,
10 Es 1930 KNXT 2 CA 1050 06 Es 1608 XHBC? 3 BCN 1200 2100 KUTV 2 UT 750	
1943 KORK? 3 NV 950 1955 KLNE?/KMTV? 3 NE 12 Es 1430 KOAI 2 AZ 1100	0
January 1977 08 Es 1730 KTVK 3 AZ 1200 1500 KVOA 4 AZ 1300	)
29 Es 0800 KENW 3 NM 1450 09 Es 1100 KLNE 3 NE 1250 0/KOMO-4	
May 1977 1300 KTVS 3 CO 1100 15 Es 1030 KORK 3 NV 950	
18 Es 0832 unID 2 tp 1330 KORK 3 NV 950 16 Es 1030 KOAI 2 AZ 1100	0
June 1977 10 Es 1700 KPHO 5 AZ 1200 1300 KOTA 3 SD 950	
02 Es 2002 CKSA 2 AT 650 audio ID o/KING-5 1530 KTWO 2 WY 900	
04 Es 1545 KNXT? 2 CA 1050 1710 MUF 104.7 MHz 1600 KTVQ 2 MT 700	
1600 XHBC? 3 BCN 1200 1730 KORK 3 NV 950 KTVS 3 CO 1100	0
1700 KOAI 2 AZ 1100 1830 KTVK 3 AZ 1200 <u>17</u> Es 0900 KTVU 2 CA 750	
1703 MUF 89.9 to W.TX 11 Es 1750 KCRA? 3 CA 700 1330 KWGN 2 CO 1050	0
1900 KTVS 3 CO 1100 1900 KWGN 2 CO 1050 1400 KTVS 3 CO 1100	0
2015 KWGN 2 CO 1050 KOTA 3 SD 950 1555 KEYT? 3 CA 1000	0

August 1977

W.T.Ryan continued	
17 Es 1625 XHBC 3 BCN 1200 28 Es 2100 MUF 107.3 to KS 01 Es 1850 XHBC? 3 E	SCN 1200
ad for Calexico CA 2130 KTVS 3 CO 1100 1930 KENW? 3 M	M 1450
1700 MUF 104.7 MHz 2200 KYUS 3 MT 800 2000 KOAI 2 A	Z 1100
2100 KOTA 3 SD 950 KTWO 2 WY 900 KTVK 3 A	Z 1200
24 Es 1500 KORK 3 NV 950 29 Es 1200 KOTA 3 SD 950 02 Es 1105 CKSA 2 A	T 650
1630 KTVK 3 AZ 1200 1300 KDLO 3 SD 1300 03 Es 1730 KOAI 2 A	Z 1100
1700 MUF 104.7 MHz 1320 KDIX 2 ND 950 04 Es 1600 KOAI? 2 A	Z 1100
1955 KWGN 2 CO 1050 1330 KGFE 2 ND 950 1618 XHBC 3 F	3CN 1200
25 Es 1100 KORK 3 NV 950 1340 MUF 92.1 to MB 1630 KTVK 3 A	Z 1200
2300 XHBC? 3 BCN 1200 1400 CBWFT? 3 MB 1200 1700 KNXT 2 C	CA 1050
2330 KORK 3 NV 950 July 1977 1730 KORK 3 N	₩ 950
26 Es 2050 XHBC? 3 BCN 1200 01 Es 1820 KNXT 2 CA 1050 1830 KUTV 2 U	JT 750
28 Es 2100 KOTA 3 SD 950 1838 MUF 94.5 to TX 2100 KOTA 3 S	
I've been a member of WTFDA since 1972, but this is my first report. I DX using	g a 16"
RCA color portable, with an attic antenna pointed at Seattle. This, plus the strong	ng sig-
1 5 il Carata attiana annata limita what I am racaiva an channels 4 &	5 Tropo

RCA color portable, with an attic antenna pointed at Seattle. This, plus the strong signals from the Seattle stations, greatly limits what I can receive on channels 4 & 5. Tropo seems almost nonexistent around here, except for 'local' inversions enhancing Seattle-Tacoma reception. The new CKVU-21, Vancouver, has its transmitter in the Gulf Islands, and puts a strong signal into Victoria. Of course, their 1.234 Megawatts helps! By contrast, CBUFT-26, Vancouver, with transmitter on Mt.Seymour, is rarely visible. Of course, a decent UHF antenna would help. Have received KTPS-62 (Tacoma) very weakly, and ditto for KIRO-7's Port Angeles translator on channel 70. (that'd be K7ØDG..de) Wonder if that channel 22 for Seattle ever gets on the air, and what reception will be like. With so little on UHF locally, it seems ironic to have it adjacent to Vancouver's channel.....

1657 KENW 3 NM 1055 1700 KMID 2 TX 1183 1708 XHQ 3 SIN 1232 1730 KAMR 4 TX 1140 1757 CFAC 2 AT 992 1758 CBUT 2 BC 818 1900 KSNB 4 NE 1301 1900 KSNB 4 NE 1301 1900 KWNB 6 NE 1151 1934 KXON 5 SD 1328 1945 KUSD 2 SD 1368 1945 KUSD 2 SD 1368 1945 KUSD 2 SD 1368 1900 KEYT 3 CA 247 1300 KNXT 2 CA 318 1315 KTTV 11 CA 318 1316 KTLA 5 CA 318 1315 KTTV 11 CA 318 1316 KTLA 5 CA 318 13170 KNBC 4 CA 318 1320 KNBC 4 CA 318 1320 KNBC 4 CA 318 1320 KNBC 5 CA 318 1320 KNBC 6 CA 318 1320 KNBC 6 CA 318 1320 KNBC 7 CA 318 1320 KNBC 6 CA 318 1320 KNBC 6 CA 318 1320 KNBC 6 CA 318 1320 KNBC 7 CA 318 1320 KNBC 6 CA 318 1320 KNBC 7 CA 318 1320 KNBC 6 CA 318 1320 KNBC 7 CA 318 1320 KNBC 6 CA 318 1320 KNBC 7 CA 318 1320 KNBC 6 CA 318 1320 KNBC 7 CA 318 1320 KNBC 6 CA 318 1320 KNBC 7 CA 318	6 Es 9 Es	2330 1530 1542 1600 1630 1130 2010 1903 0930	CKSA KNOP SIGN- KENW KMID KENW KWAB KAVE KDBC CKCK KNOP CKGK KNOP KSNB WOWT KHAS KWNB	2 2 3 4 6 4 2 2 2 2 2 4 6 5 6 2	CH TX NM TX NM TX NE SK AT NE NE NE NE CO	1241 1163 963 1183 1055 1206 1055 963 1253 1163 1253 992 1163 1301 1414 1286 1151	
1700 KMID 2 TX 1183  1708 XHQ 3 SIN 1232  1730 KAMR 4 TX 1140  1757 GFAC 2 AT 992  1758 CBUT 2 BC 818  1900 KSNB 4 NE 1301  1800 KOMO 4 WA 709  KNNB 6 NE 1151  1934 KXON 5 SD 1328  1945 KUSD 2 SD 1368  1945 KUSD 2 SD 1368  1940 KENW 3 NM 1055  100 tr 0900 KEYT 3 CA 247  1300 KNXT 2 CA 318  1300 KNXT 2 CA 318  1300 KNXT 2 CA 318  1315 KTTV 11 CA 318  1316 KTLA 5 CA 318  1316 KTLA 5 CA 318  1316 KTLA 5 CA 318  13170 KMID 2 TX 1183  KABC 7 CA 318  1320 KNBC 4 CA 318  1320 KNBC 5 CA 318  1320 KNBC 6 CA 318  1320 KNBC 6 CA 318  1320 KNBC 7 CA 318  1330 KEFT 3 CA 247  1700 KMID 2 TX 1183  KEFTX 3 TX 1327  14 tr 0844 KHJ 9 CA 318  1702 KTVC 6 KS 1204  0855 KEET 13 CA 240  0915 KEYT 3 CA 247  1710 KEFM 2 CH 963  0915 KEYT 3 CA 247  1729 KENW 3 NM 1055  15 ES 1104 KNOP 2 NE 1163  1750 KAMR 4 TX 1140  1830 KNDD 2 TX 1183  1750 KAMR 4 TX 1140  1830 KNDD 2 TX 1183  1750 KAMR 4 TX 1140  1830 KNDD 2 TX 1183  1750 KAMR 4 TX 1140	6 Es 9 Es 01 Es	1530 1542 1600 1630 1130 2010 1903 0930 0934 1000 1013	SIGN- XEPM KMID KENW KWAB KAVE KDBC CKCK KNOP CKCK KNOP KSNB WOWT KHAS KWNB	off 2 2 3 4 6 4 2 2 2 2 2 4 6 5 6 5	CH TX NM TX NM TX SK AT NE NE NE NE CO	963 1183 1055 1206 1055 963 1253 1163 1253 992 1163 1301 1414 1286 1151	
1708 KHQ 3 SIN 1232	6 Es 9 Es 01 Es	1542 1600 1630 1130 2010 1903 0930 0934 1000 1013	KEPM KMID KENW KWAB KAVE KDBC CKCK KNOP CKCK CFAC KNOP KSNB WOWT KHAS KWNB	2 3 4 6 4 2 2 2 2 2 4 6 5 6 2	CH TX NM TX NM TX SK NE SK AT NE NE NE CO	1183 1055 1206 1055 963 1253 1253 1253 992 1163 1301 1414 1286 1151	
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1934	9 Es	1130 2010 1900 1903 0930 0934 1000 1013	CKCK KNOP CKCK CFAC KNOP KSNB WOWT KHAS KWNB	2 2 2 2 2 4 6 5	SK NE SK AT NE NE NE NE CO	1253 1163 1253 992 1163 1301 1414 1286 1151	
1945	9 Es	2010 1900 1903 0930 0934 1000 1013	KNOP CKCK CFAC KNOP KSNB WOWT KHAS KWNB	2 2 2 2 4 6 5	NE SK AT NE NE NE NE CO	1163 1253 992 1163 1301 1414 1286 1151	
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09 Es 1213 CKCK         2 SK 1253         very rare this year         2 CA           10 tr 0900 KEYT         3 CA 247         1345 KTVQ         2 MT 888           1300 KNXT         2 CA 318         1350 KMID         2 TX 1183           1303 KCOP         13 CA 318         1351 KENW         3 NM 1055           1304 KHJ         9 CA 318         1425 KEPM         2 CH 963           1315 KTLA         5 CA 318         1535 KHCH         2 CH 1123           1316 KTLA         5 CA 318         2025 KEPM         2 CH 963           1320 KNBC         7 CA 318         2025 KEPM         2 CH 963           1320 KNBC         4 CA 318         KENW         3 NM 1055           Es 1643 KTWO         2 WY 908         tr 2030 KEYT         3 CA 247           1700 KMID         2 TX 1183         KEFT         13 CA 240           1710 XEFM         2 CH 963         0915 KEYT         3 CA 247           1729 KENW         3 NM 1055         15 Es 1104 KNOP         2 NE 1163           1750 KARR 4 TX 1140         1830 KMID         2 TX 1183           1830 KMID         2 TX 1183         ANM 1055	<u>)</u> Es	1903 0930 0934 1000 1013	CFAC KNOP KSNB WOWT KHAS KWNB	2 2 4 6 5 6 2	AT NE NE NE NE CO	992 1163 1301 1414 1286 1151	
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1303		1000	WOWT KHAS KWNB KWGN	6 5 6 2	NE NE CO	1414 1286 1151	
1304 KHJ 9 CA 318 1425 XEPM 2 CH 963 1315 KTTV 11 CA 318 1535 XHCH 2 CH 1123 1316 KTLA 5 CA 318 1535 XHCH 2 CH 1123 1320 KNBC 4 CA 318 2025 XEPM 2 CH 963 1320 KNBC 4 CA 318 KENW 3 NM 1055 Es 1643 KTWO 2 WY 908 tr 2030 KEYT 3 CA 247 1700 KMTD 2 TX 1183 KEFT 13 CA 240 1710 XEPM 2 CH 963 0915 KEYT 3 CA 247 1710 XEPM 2 CH 963 0915 KEYT 3 CA 247 1729 KENW 3 NM 1055 15 Es 1104 KNOP 2 NE 1163 1750 KANR 4 TX 1140 1830 KNID 2 TX 1183		1000	KHAS KWNB KWGN	5 6 2	NE NE CO	1286 1151	
1315 KTTV 11 CA 318 1316 KTLA 5 CA 318 1316 KTLA 5 CA 318 1318 ES 2010 KNTD 2 TX 1183 1320 KNBC 4 CA 318 13 ES 2010 KNTD 2 TX 1183 1320 KNBC 4 CA 318 13 ES 2010 KNTD 2 TX 1183 13 ES 2010 KNTD 2 TX 1183 14 ES 1643 KTWO 2 WY 908 15 1643 KTWO 2 WY 908 16 1700 KMTD 2 TX 1183 1700 KMTD 2 TX 1183 1700 KTVC 6 KS 1204 1710 KEFM 3 TX 1327 14 tr 0844 KHJ 9 CA 318 1702 KTVC 6 KS 1204 1710 KEFM 2 CH 963 1710 KEFM 2 CH 963 1710 KEFM 3 NM 1055 15 ES 1104 KNOP 2 NE 1163 1750 KANR 4 TX 1140 1830 KNID 2 TX 1183 1830 KNID 2 TX 1183		1000	KHAS KWNB KWGN	6 2	NE CO	1151	
1316		1000	KWNB KWGN	6 2	NE CO	1151	
KABC         7         CA         318         2025         XEPM         2         CH         963           1320         KNBC         4         CA         318         KENW         3         NM         1055           Es         1643         KTWO         2         WY         908         tr         2030         KEYT         3         CA         247           1700         KTDX         3         TX         1327         14         tr         0844         KHJ         9         CA         318           1702         KTVC         6         KS         1204         0855         KEET         13         CA         240           1710         XEPM         2         CH         963         0915         KEYT         3         CA         247           1729         KENW         3         NM         1055         15         Es         1104         KNOP         2         NE         1163           1750         KAMR         4         TX         1140         1830         KMID         2         TX         1183		1013	KWGN	2	CO		
1320 KNBC 4 CA 318 KENW 3 NM 1055 Es 1643 KTWO 2 WY 908 tr 2030 KEYT 3 CA 247 1700 KMID 2 TX 1183 KEET 13 CA 240 KFDX 3 TX 1327 14 tr 0844 KHJ 9 CA 318 1702 KTVC 6 KS 1204 0855 KEET 13 CA 240 1710 XEPM 2 CH 963 0915 KEYT 3 CA 247 1729 KENW 3 NM 1055 15 Es 1104 KNOP 2 NE 1163 1750 KANR 4 TX 1140 1830 KNID 2 TX 1183							
Es 1643 KTWO 2 WY 908 tr 2030 KEYT 3 CA 247  1700 KMID 2 TX 1183 KEET 13 CA 240  KFDX 3 TX 1327 14 tr 0844 KHJ 9 CA 318  1702 KTVC 6 KS 1204 0855 KEET 13 CA 240  1710 KEFM 2 CH 963 0915 KEYT 3 CA 247  1729 KENW 3 NM 1055 15 Es 1104 KNOP 2 NE 1163  1750 KANR 4 TX 1140 1830 KMID 2 TX 1183				6	CO	932	
1700 KMTD 2 TX 1183  KFDX 3 TX 1327  14 tr 0844 KHJ 9 CA 318  1702 KTVC 6 KS 1204  1710 XEPM 2 CH 963  1729 KENW 3 NM 1055  15 Es 1104 KNOP 2 NE 1163  1750 KAMR 4 TX 1140  1830 KMTD 2 TX 1183			KLNE			1193	
RFDX 3 TX 1327   14 tr 0844 KHJ 9 CA 318			KTVS			1016	
1702 KTVC 6 KS 1204 0855 KEET 13 CA 240 1710 XEPM 2 CH 963 0915 KEYT 3 CA 247 1729 KENW 3 NM 1055 15 Es 1104 KNOP 2 NE 1163 1750 KANR 4 TX 1140 1830 KMID 2 TX 1183			KYCU			920	
1710 XEPM 2 CH 963 0915 KEYT 3 CA 247 1729 KENW 3 NM 1055 15 Es 1104 KNOP 2 NE 1163 1750 KANR 4 TX 1140 1830 KNID 2 TX 1183		1120	KDUH			1060	
1729 KENW 3 NM 1055		- 100 miles	KXON			1328	
1750 KAMR 4 TX 1140 1830 KMID 2 TX 1183			KNOP	7.0		1163	
1930 VOA 4 CO 032 VENIU 3 NM 1055			KWGN			932	
1920 VOA 4 CO 022 VENU 3 NM 1055	10 Pa		CKCK			1253	
1030 NUM 4 CO 734 NEMW 3 NM 1033 7						318	
1848 KWGN 2 CO 932 1930 XEPM 2 CH 963	13 CE	0320	KNXT				
1858 KRMA 6 CO 932 1950 KDBC 4 TX 963			KNBC			318	
1900 KTVS 3 CO 1016 16 Es 0930 KDIX 2 ND 1159			KHJ			318	
KYCU 5 WY 920 1100 CFAC 2 AT 992			KCOP				
1903 KWNB 6 NE 1151 17 tr 0830 KEYT 3 CA 247						after	r
2005 PAUS 6 TV 1227 F- 1000 PNOD 2 NE 1162			a go				
Excellent DX this day, KTIV 4 IA 1395	)5 Es	0830	KTVY				
highlighted by great 19 tr 015/ KNYT 2 CA 318			KTVC			1204	
Es opening with 2-6 KHJ 9 CA 318			relog		-i+		

Seems like a good Es season so far. However, a big decline in activity was noted for period June 18 thru 23, with no Es at all. Also, good tropo conditions throughout, bringing in Redding ch.7 & 9, Santa Maria ch.12 and Bakersfield Us at least every day. Fine tropo opening into So.Calif. on 6-10. All LA Vs in, but no Us. KHJ-9 very good especially, but cable TV CCI coming from same heading produced heavy interference. Read Buck Battin's comments on the Jerrold JUP-4 antenna. I would have to agree that

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John Phillips continued...

it is very much a highly underrated dish. I've made some direct comparisons between the JUP-4 and the CM 4251. I found no detectable difference between them, except that the Jerrold was about 300% easier to set up. I have also had excellent results with Jerrold's DSU-105 UHF preamp. (Thanks for the antenna & preamp comments, John...de)

Rick Samford, 404 S. McNeill, Burnet, Texas 78611 (CST.	/CDT) (08 Mar - 05 Jul)
RCA 19" XL-100, BTX-111 UHF converter, Winegard KU-420, 1	hi-band yagi
March 1977	13 Es 1820 WSAV 3 GA
14 tr 0035 KXIX 19 TX (15 kW) 21 tr 0930 KAUZ 6 TX 215	
25 tr 1030 KCBD 11 TX 290 Es 1700 WCBD 2 SC	2032 WESH 2 FL
29 tr 0825 KEDT 16 TX 215 28 tr 0840 KCBD 11 TX 290	
KXIX 19 TX 155 KLBK 13 TX 290	
April 1977 1130 KAUZ 6 TX 215	
07 tr 0100 KPLC 7 LA 300 29 tr 2348 KXIX 19 TX 155	
0755 KLAA 14 LA 390 <u>31</u> tr 0915 WRBT 33 LA 430	
20 tr 2206 KORO 28 TX 210 0929 WLPB 27 LA 430	
new station on air 1000 KAUZ 6 TX 215	
May 1977 June 1977	0030 KPLC 7 LA 300
03 tr 2132 KCBD 11 TX 290 04 Es 1900 WTWO 2 IN	0905 WAPT 16 MS 500
2135 KLBK 13 TX 290 2000 WDTN 2 OH	28 Es 1730 WJBF 6 GA
11 Es 1830 WPBT 2 FL 06 Es 1828 WEDU 3 FL	1741 WCBD 2 SC
1855 WTVJ 4 FL 09 Es 1820 KID 3 ID	1800 WRBL 3 GA
12 Es 2250 WESH 2 FL 2200 KTVQ 2 MT	1830 WESH 2 FL
15 Es 1828 WFMY 2 NC 10 tr 0855 WAPT 16 MS 500	
1829 WUNC 4 NC Es 1658 KORK 3 NV	WCIV 4 SC
2100 WCBD 2 SC 1713 KVVU 5 NV	30 Es 2000 KTVQ 2 MT
2155 WCIV 4 SC 1959 KTVK 3 AZ	July 1977
16 Es 1653 WESH 2 FL 2011 KOAI 2 AZ	01 Es 2120 WITI 6 WI
20 Es 1730 WUNC 4 NC 11 Es 1925 KNBC 4 CA	on KR-5400 receiver
1858 WWAY 3 NC 1910 KSBY 6 CA	03 Es 1548 KWGN 2 CO

Considering the lack of a suitable antenna for lo-band, as well as the fact that the yagi is rotorless, I suppose I've seen a fairly respectable amount of E-Skip since mid-May. With this antenna system, it's hard to tell how good the skip really is. There are a considerable number of unIDs; probably more than IDed. There's one advantage to not having a rotor: you either know what you have or you don't; not a great deal of tentatives. There has been occasional 300-500 mile UHF tropo, but nothing to compare with the February ducting to Fort Myers. As with the skip, it's hard to tell how good the tropo really is. The CE at the new KORO-28 in Corpus Christi stated in their QSL letter that they began broadcasting in the equipment testing phase of operation on April 5, 1977. They have a directional antenna, aimed at 315' true, and the transmitter is located in downtown Corpus. I hope all WTFDAers have had, and will continue to have, a fantastic summer DX season. Rick

Dave Pomeroy, 131 Woodlawn, T	Copeka, Kansas 66606	
August 1976	21 Es 1800 WPSX 3 PA	03 Es 1630 Mexicans 2 & 4
19 Es 1800 KRTV 3 MT	1830 WWAY 3 NC	2130 WCBD 2 SC
CBC stn 3	22 Es 0850 CKRN 4 PQ	WCIV 4 SC
1900 KTVK 3 AZ	0900 KYW 3 PA	The following seen on oc-
21 Es 1100 WEDU 3 FL	25 Es 2200 KUTV 2 UT	casion, not regularly:
November 1976	2230 KID 3 ID	KTEW-2 OK
17 tr 0830 KAIT 8 AR	26 Es 2100 KORK 3 NV	KHQA-7 MO
KTEJ 19 AR	30 Es 1800 WBTV 3 NC	KMEG-14 IA
Es 1800 WCBD 2 SC	1820 WNGE 2 TN	KTVJ-16 MO
1830 WSB 2 GA	July 1977	KOZK-21 MO
June 1977	01 Es 2010 KTVU 2 CA	KTIN-21 IA
14 Es 1800 WMAR 2 MD	2100 KTVN 2 NV	KBIN-32 IA
1815 WCIX 6 FL	KRGV 5 TX	KHIN-36 IA
1830 KYW 3 PA	2130 KUTV 2 UT	Best of DX = Dave
21 Es 1730 WUND 2 NC	tr 2200 KOCO 5 OK	Dest of DA - Dave
Richard Noel Allen, Billings	, Oklahoma 74630 (CST) (01 Jun	- 06 Jul)
01 tr 0452 KIDZ 24 TX	05 Es 1530 CBC stn 2	09 Es 2115 KBCI 2 ID
03 Es 1758 XEW 2 DF	06 tr 0455 KMTC 27 MO	10 Es 1700 KUAT 6 AZ
2140 XEZ 3 QR	strong signal received	1800 KVOA 4 AZ
05 Es 1028 CJIC 2 ON	without aid of antenna	(# 307 and 308)
1030 CKSO 3 ON	Es 1950 CKPR 2 ON	1800 KEYT 3 CA
1059 WBAY 2 WI	2100 KBCI 2 ID	12 Es 0859 KRTV 3 MT
1231 CKCK 2 SK	09 Es 1645 KORK 3 NV	1659 KBCI 2 ID
1235 KGFE 2 ND	1700 KVVU 5 NV	1800 KAID 4 ID
1251 KDIX 2 ND	1925 KUTV 2 UT	1811 CKCK 2 SK

Richard Noel Aller		continued.													
12 Es 1817 KIVI				Es	1715	WWAY	3	NC		25	Es	2203	KXLF	4	MT
	2 D		-		1716		4	NC		26	Es	0132	KTVQ	2	MT
	N				1729			NC					gn-of	f	
	N				1759		4	SC				1030	XEW	2	DF
	0				1805		5	FL					XEZ	3	QR
	P				1830		3	FL		01	Es	1930	KTVN	2	NV
	3 N					WCBD	2	SC				2030	KAID	4	ID
	2 0		25	Es	0925	XHGC	5	DF		02	Es	1415	KRTV	3	MT
	- N		_				box	re 1	08 MHz	_			KTVQ	2	MT
	2 8				1850	WEDU	3	FL				1857	KUTV	2	UT
	3 N					WSAV	3	GA		03	Es	1800	WUNC	4	NC
	3 P					WESH	2	FL					WRAL	5	NC
	3 N				1920	WTVJ	4	FL	4			2100	WTAR		VA
20 Es 1852 WTTG	5 D	C			1931	WCIX	6	FL		04	Es	1300	CKCO	2	ON
	3 P	A			1956	WEAR	3	FL		06	tr	0458	KCBJ	17	MO
	2 0	ON			2000	WEDU	3	FL				0500	KBMA	41	MO
	2 L	T			2202	KTVQ	2	MT			T	. mate	als =	301	
	4 U	IT				KRTV	3	MT			rof	TOL	118 -	300	0
Frank Aden, 1535	WW	Ithaca Ave	., 1	Ben	d, Or	egon	97	701	(503)	389-	5488	3			
November 1976					1106			ND		11	Es	2000	KDLO	3	ND
November 1976 21 tr 0000 KTVB	7 ]	CD CD			1130	WDAY	6	ND		11	Es		KDLO KTVO		ND MT
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK		CD CD			1130	WDAY KPRY	6	ND SD		11	Es	2008		2	
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976	7 1 3 N	ID VV			1130 1200	WDAY KPRY KCKT	4 2	ND SD KS		11	Es	2008 2018	KTVQ	4	MT
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976	7 ]	ID VV			1130 1200	WDAY KPRY KCKT KDIX	6 4 2 2	ND SD KS ND		11	Es	2008 2018 2020	KTVQ CKYB	4 5	MT MB
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977	7 1 3 N 4 1	ED LD			1130 1200 1230	WDAY KPRY KCKT KDIX KDLO	6 4 2 2 3	ND SD KS ND SD		<u>11</u>	Es	2008 2018 2020	KTVQ CKYB KFYR	2 4 5 6	MT MB ND
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT	7 1 3 N 4 1	ID NV ID			1130 1200 1230 1300	WDAY KPRY KCKT KDIX KDLO KOTA	6 4 2 2 3 3	ND SD KS ND SD SD		11	Es	2008 2018 2020 2030	CKYB KFYR WDAY CKX	2 4 5 6 5	MT MB ND ND ND
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD	7 1 3 N 4 1	ID NV ID	09	Es	1130 1200 1230 1300 1700	WDAY KPRY KCKT KDIX KDLO KOTA KFDX	6 4 2 2 3 3 3	ND SD KS ND SD SD TX	7 THE	11	Es	2008 2018 2020 2030 2040	KTVQ CKYB KFYR WDAY	2 4 5 6 5 3	MT MB ND ND ND
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977	7 1 3 N 4 1 2 H 3 H	ID ID KS KS	09	Es	1130 1200 1230 1300 1700 1230	WDAY KPRY KCKT KDIX KDLO KOTA KFDX KTIV	6 2 2 3 3 4	ND SD KS ND SD SD TX IA	7 3			2008 2018 2020 2030 2040 2130	KTVQ CKYB KFYR WDAY CKX CBWF7 KDIX	2 4 5 6 5 3 2	MT MB ND ND MB MB
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977	7 1 3 N 4 1	ID ID KS KS	09	Es	1130 1200 1230 1300 1700 1230 1300	WDAY KPRY KCKT KDIX KDLO KOTA KFDX KTIV KMTV	6 2 2 3 3 4 3	ND SD KS ND SD SD TX IA NE	# E			2008 2018 2020 2030 2040	KTVQ CKYB KFYR WDAY CKX CBWF7 KDIX	2 4 5 6 5 3 2 2	MT MB ND ND MB MB
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW	7 1 3 N 4 1 2 H 3 H	ID ID SS SS	09	Es	1130 1200 1230 1300 1700 1230 1300	WDAY KPRY KCKT KD LX KD LO KOTA KFDX KT LV KMTV KQTV	6 2 2 3 3 4 3 2	ND SD KS ND SD SD TX IA NE MO	71 E			2008 2018 2020 2030 2040 2130 1255	KTVQ CKYB KFYR WDAY CKX CBWF7 KDIX KNOP	2 4 5 6 5 3 2 2 2	MT MB ND ND MB MB ND NE
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID	7 1 3 N 4 1 2 H 3 H	ID ID SS SS	09	Es	1130 1200 1230 1300 1700 1230 1300 1330	WDAY KPRY KCKT KDLX KDLO KOTA KFDX KTIV KMTV KQTV WOWT	6 2 2 3 3 4 3 6	ND SD KS ND SD SD TX IA NE MO NE				2008 2018 2020 2030 2040 2130 1255	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS	2 4 5 6 5 3 2 2 2 3	MT MB ND ND MB MB ND NE KS
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW May 1977	7 1 3 N 4 1 2 H 3 H	ID VV ID ID SKS KS	09	Es	1130 1200 1230 1300 1700 1230 1300 1330	WDAY KPRY KCKT KD LX KD LO KOTA KFDX KT LV KMTV KQTV	6 4 2 2 3 3 3 4 4 3 2 6 6	ND SD KS ND SD SD TX IA NE MO NE AZ				2008 2018 2020 2030 2040 2130 1255 1259	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS KLNE	2 4 5 6 5 2 2 2 3 3	MT MB ND ND MB ND NE KS CO NE
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW May 1977 07 Es 2130 KFDX	7 1 3 N 4 1 2 H 3 H 2 1 3 H	ID IV ID IC	09	Es	1130 1200 1230 1300 1700 1230 1300 1330	WDAY KPRY KCKT KD LX KD LX KD LX KFDX KT LV KMTV KQTV WOWT KUAT KTVK	6 4 2 2 3 3 4 4 3 2 6 6 6	ND SD KS ND SD TX IA NE MO NE AZ AZ				2008 2018 2020 2030 2040 2130 1255 1259	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS KLNE KOA	2 4 5 6 5 7 3 2 2 2 2 3 3 4	MT MB ND ND MB MB ND NE KS CO NE CO
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW May 1977 07 Es 2130 KFDX 2135 KYUS	7 1 1 3 1 4 1 1 2 1 1 3 1 1 3 1 1 3 1 1 3 1 1	ID IV ID KS KS KS KS KX KM	09	Es	1130 1200 1230 1300 1700 1230 1300 1330	WDAY KPRY KCKT KDLX KDLO KOTA KFDX KTIV KMTV KQTV WOWT KUAT KTVK KVOA	6 4 2 2 3 3 3 4 3 2 6 6 6 3 4	ND SD KS ND SD TX IA NE MO NE AZ AZ				2008 2018 2020 2030 2040 2130 1255 1259 1313 1330	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS KLNE KOA KOAA	2 4 5 6 5 7 3 2 2 2 2 3 3 4 5	MT MB ND ND MB MB ND NE KS CO NE CO CO
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW May 1977 07 Es 2130 KFDX 2135 KYUS	7 1 3 N 4 1 2 H 3 1 1 3 1 1 3 1 1 5 5 5	ID IV ID KS KS KS IX	09	Es	1130 1200 1230 1300 1700 1230 1300 1330	WDAY KPRY KCKT KD LX KD LO KOTA KFD X KT LV KMT V KQT V WOWT KUAT KTVK KVOA KPHO	6 4 2 2 3 3 4 3 2 6 6 3 4 5	ND SD KS ND SD TX IA NE MO NE AZ AZ AZ				2008 2018 2020 2030 2040 2130 1255 1259 1313 1330 1445	CKYB KFYR WDAY CKX CBWFT KDIX KNOP KCKT KTVS KLNE KOA KOAA KYCU	2 4 5 6 5 7 3 2 2 2 2 3 3 4 5 5	MT MB ND ND MB MB ND NE KS CO CO CO CO WY
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW May 1977 07 Es 2130 KFDX 2135 KYUS 08 Es 0120 CKBI 29 Es 2120 CBWFT	7 1 3 N 4 1 2 H 3 1 1 3 1 1 3 1 1 5 5 5	ID IV ID ICS	09	Es	1130 1200 1230 1300 1700 1230 1300 1330 1810	WDAY KPRY KCKT KD LX KDLO KOTA KFDX KT IV KMTV KQTV WOWT KUAT KTVK KVOA KPHO XEJ	6 4 2 2 3 3 4 3 2 6 6 3 4 5 5 5 5	ND SD KS ND SD TX IA NE MO NE AZ AZ AZ CH	# 25 1 - 25 1 - 25			2008 2018 2020 2030 2040 2130 1255 1259 1313 1330 1445 1800	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS KLNE KOA KOAA KYCU KTVK	2 4 5 6 5 3 2 2 2 2 3 3 4 5 5 3	MT MB ND ND MB MB ND NE KS CO NE CO CO
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW May 1977 07 Es 2130 KFDX 2135 KYUS 08 Es 0120 CKBI 29 Es 2120 CBWFT	7 1 3 N 4 1 2 H 3 H 3 1 1 3 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ID IV ID ICS	09	Es	1130 1200 1230 1300 1700 1300 1330 1810	WDAY KPRY KCKT KD LX KD LO KOTA KFDX KT IV KMTV KQTV WOWT KUAT KTVK KVOA KPHO XE J XEPM	6 4 2 2 3 3 3 4 3 2 6 6 3 4 5 5 2 2	ND SD KS ND SD SD TX IA NE MO NE AZ AZ CH CH		12	Es	2008 2018 2020 2030 2040 2130 1255 1259 1313 1330 1445 1800 1803	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS KLNE KOA KOAA KYCU KTVK KENW	2 4 5 6 5 3 2 2 2 2 3 3 4 5 5 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MT MB ND NB MB ND NE KS CO CO WY AZ NM
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW May 1977 07 Es 2130 KFDX 2135 KYUS 08 Es 0120 CKBI 29 Es 2120 CBWFT 2300 CKCK June 1977	7 1 3 N 4 1 2 H 3 H 3 1 1 3 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5	ID IV ID IC	10	Es	1130 1200 1230 1300 1700 1330 1300 1330 1810	WDAY KPRY KCKT KDIX KDLO KOTA KFDX KTIV KMTV KQTV WOWT KUAT KTVK KVOA KPHO XEJ KEPM KOAI	6 4 2 2 3 3 3 4 3 2 6 6 6 3 4 5 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	ND SD KS ND SD SD TX IA NE MO NE AZ AZ CH CH AZ	10 M	12	Es	2008 2018 2020 2030 2040 2130 1255 1259 1313 1330 1445 1800 1803	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS KLNE KOAA KYGU KTVK KENW XEPM	2 4 5 6 5 3 2 2 2 2 3 3 4 5 5 3 2 2 2 3 3 4 5 5 3 3 4 5 5 5 3 3 2 3 2 3 3 3 4 5 5 3 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	MT MB ND ND MB MB ND NE KS CO CO WY AZ NM CH
November 1976 21 tr 0000 KTVB 25 ms 2036 KORK December 1976 05 tr 1500 KAID January 1977 02 Es 2000 KCKT KARD March 1977 18 Es 2000 KMID 2005 KENW May 1977 07 Es 2130 KFDX 2135 KYUS 08 Es 0120 CKBI 29 Es 2120 CKBI 29 Es 2120 CKCK June 1977 08 Es 2300 KQTV	7 1 3 1 4 1 2 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	ID IV ID KS KS KS FX FX MM FX MT FK MB FK MB MO	10	Es	1130 1200 1230 1300 1700 1330 1300 1330 1810	WDAY KPRY KCKT KDIX KDLO KOTA KFDX KTIV KMTV KQTV WOWT KUAT KTVK KVOA KPHO XEPM KOAI KLNE	6 4 2 2 3 3 3 4 3 2 6 6 6 3 4 5 5 2 2 2 3 3 3 4 5 5 2 2 3 3 4 5 5 2 2 3 3 5 2 2 3 3 5 2 3 3 5 2 3 3 5 3 5	ND SD KS ND SD SD TX IA NE MO NE AZ AZ CH CH AZ NE	47 E	12	Es	2008 2018 2020 2030 2040 2130 1255 1259 1313 1330 1445 1800 1803	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS KLNE KOAA KOAA KYCU KTVK KENW XEPM	2 4 5 6 5 3 2 2 2 3 3 4 5 5 5 3 2 2 2 3 3 2 3 3 3 2 3 3 3 3 3 3	MT MB ND NB MB ND NE KS CO CO WY AZ NM
November 1976	7 1 3 1 4 1 2 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3	ED IV ED ES	10	Es	1130 1200 1230 1300 1700 1230 1330 1810 1844 1852 1900 1800	WDAY KPRY KCKT KDIX KDLO KOTA KFDX KTIV KMTV KQTV WOWT KUAT KTVK KVOA KPHO XEJ KEPM KOAI	6 4 2 2 3 3 4 4 3 2 6 6 6 3 4 5 5 2 2 2 3 5 5 5 2 2 2 3 5 5 5 2 2 5 5 2 2 3 5 5 2 5 2	ND SD KS ND SD SD TX IA NE MO NE AZ AZ CH CH AZ	44 di	12 15 17	Es Es	2008 2018 2020 2030 2040 2130 1255 1259 1313 1330 1445 1800 1803 1800 2000	KTVQ CKYB KFYR WDAY CKX CBWFT KD IX KNOP KCKT KTVS KLNE KOAA KYGU KTVK KENW XEPM	2 4 5 6 5 3 2 2 2 2 3 3 4 5 5 3 3 2 2 2 3 3 3 2 3 2 3 3 3 3 2 3 3 3 2 3 3 2 3 3 3 2 3 3 3 2 3 3 3 2 3 3 3 3 3 2 3 3 3 2 3 3 3 3 3 2 3 3 3 3 2 3	MT MB ND ND MB MB ND NE KS CO NE CO CO WY AZ NM CH SD

WCCO 4 MN

1930 KPRY 4 SD

Not a bad start for 1977, with four new stations. I have just about DXed all my possible Es stations, so I plan to get UHF up later this summer, after convention. If that doesn't work, I may have to move to a new location and start over again... 73s = Frank

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Bill Block, 133 SE 31, Portland, Oregon 97214 (503) 234-1809
GE black & white portable with rabbit ears antenna
                               26 Es 0142 KNBC 4 CA 875
                                                              02 Es 0113 KVOA 4 AZ 1175
June 1977
                                                                    0117 KTVK 3 AZ 1050
                                     0200 KEYT
                                                3 CA 820
17 Es 1930 KNBC
                4 CA 875
                                                3 BCN 1015
                                                              04 Es 2000 XHBC
                                                                               3 BCN 1015
                                     0220 XHBC
     1944 XHBC
                 3 BCN 1015
                                     0229 KTVK 3 AZ 1050
                                                                              4 CA 875
                                                                    2001 KNBC
19 Es 1900 KVOA
                4 AZ 1175
                               28 Es 1117 KPRY 4 SD 1170
                                                                    2015 KTLA
                                                                               5 CA 875
     1901 KTVK
                3 AZ 1050
                                                                               3 AZ 1050
                               July 1977
                                                                    2030 KTVK
      2318 KPRY
                4 SD 1170
                               01 2E 2225 KGBT 4 TX 1950
                                                                    2036 KVOA
                                                                              4 AZ 1175
                 4 IA 1350
20 Es 0002 KTIV
                                                                               4 CO 1005
                3 NV 780
                                     2321 KDBC 4 TX 1320
                                                                    2049 KOA
25 Es 1415 KORK
                                                                    2119 KOTA 3 SD 975
      1417 KVVU 5 NV 780
                                     2330 KIII 3 TX 1875
```

As you can see, DX has been very good, with skip in almost every day. I sure wish that I could put up a good outdoor antenna. I live in an apartment and no antennas, but the rabbit ears are doing okay for now. (nice going on the Texas double-hop, Bill...de)

Patrick Martin, P.O.Box 14192,	Port	land,	Oregon	1 9	7214	(503)	224	+-06	514	(05 Ju	n ·	- 16	Jun)
			KTVK				09	Es	0730	KTIV	4	IA	
1800 KID? 3 ID	ti		KCBY?	1:	l OR		10	Es	1700	KTVK	3	AZ	
			KOAA				_			KVOA	4	AZ	
2000 KOTA 3 SD		1930	KOA	4	CO				1723	KOAI?	2	AZ	
2030 KPRY 4 SD		1941	KTVS	3	CO				1830	'KPHO	5	AZ	
2100 MUF to ch.7!		1945	MUF 1	.08	MHz				1845	KUAT?	6	AZ	
07 Es 2100 KVOA 4 AZ			KIEM?				11	Es	1900	KSNB	4	NE	
KPHO 5 AZ		2335	KMED	10	OR				1930	KHAS	5	NE	

Patrick Martin continued		
11 Es 1931 KMTV 3 NE	12 Es 1652 KPHO 5 AZ	14 Es 1730 MUF 4 vid.
12 Es 1430 KOB 4 NM	1655 KVOA 4 AZ	15 Es 0730 MUF 5 vid.
2E? 1630 KBTX? 3 TX	2E 1700 KRGV 5 TX	16 Es 1330 KDUH 4 NE
Es 1645 KTVK 3 AZ	2E 1700 <u>KRGV 5</u> TX 13 Es 1730 <u>MUF 4 vid.</u>	1400 KOTA 3 SD
	- 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2100 1011 5 55
B.W.Battin, 4305 Pitt, Duluth,		7)
01 Es 1200 WBRZ 2 LA 1145	09 tr 2210 WFLD 32 IL 405	19 Es 2200 WJXT 4 FL 1295
04 Es 2100 WESH 2 FL 1410	2245 WSNS 44 IL 405	2220 WSB 2 GA 1010
tr 2245 KSIN 27 IA 365	10 Es 1430 KUTV 2 UT 1080	2225 WESH 2 FL 1410
05 Es 0930 WSM 4 TN 805	12 tr 0015 KAAL 6 MN 220	20 Es 1230 WSB 2 GA 1010
1000 WCBI 4 MS 945	Fe 1115 WT B7 2 MF 1160	LIVEU 2 PT 1/10
1030 WWL 4 LA 1170	1535 Mexican 2	1745 WCIV 4 SC 1180
1130 KJAC 4 TX 1180	1650 KAMR 4 TX 965	1755 WCBD 2 SC 1180
06 Es 1030 KWGN 2 CO 820	1700 WMAR 2 MD 950	1800 WSJK 2 TN 900
1530 WUNC 4 NC 1030	1705 KDKA 2 PA 765	2030 WWL 4 LA 1170
1535 WCIV 4 SC 1180	1715 KOB 4 NM 1125	2100 WTVY 4 AL 1160
1625 WBZ 4 MA 1085	1535 Mexican 2 1650 KAMR 4 TX 965 1700 WMAR 2 MD 950 1705 KDKA 2 PA 765 1715 KOB 4 NM 1125 1730 KOA 4 CO 820	2130 WBRZ 2 LA 1145
1700 WFBC 4 SC 990	1800 WLBZ 2 ME 1160	2230 KMID 2 TX 1170
1725 WNBC 4 NY 1000	13 tr 0050 KCCI 8 IA 370	21 Es 0125 WKRG 5 AL 1160
1800 WTVY 4 AL 1160	0100 KTIV 4 IA 365	0130 WEAR 3 FL 1190
2200 WWL 4 LA 1170	Es 1330 CFAC 2 AT 1070	tr 0200 WISC 3 WI 295
2220 KARK 4 AR 840	1331 KBCI 2 ID 1215	E- 1200 LIDDY 2 TA 11/E
08 Es 0930 WCBS 2 NY 1000	1 7 7 7 10 10 10 10 10 10 10 10 10 10 10 10 10	
1830 WNBC 4 NY 1000	1535 KUTV 2 UT 1080 1720 WSB 2 GA 1010 1720 WSB 2 GA 1010 0530 KWWL 7 IA 300 0550 WTMJ 4 WI 335	1300 WCBI 4 MS 945
09 Es 0045 WSVA 3 VA 910	14 tr 0140 WITI 6 WI 335	1400 WUNC 4 NC 1030
0105 KOB 4 NM 1125	0530 KWWL 7 LA 300	WFMY 2 NC 1000
0120 WREC 3 TN 835	0530 <u>KWWL</u> 7 IA 300 0550 <u>WTMJ</u> 4 WI 335 0620 KGLO 3 IA 260	1720 WESH 2 FL 1410
		* 1800 WPBT 2 FL 1620
0145 KWGN 2 CO 820	0630 WMT 2 IA 340	1805 WJXT 4 FL 1295
0200 KOAI 2 AZ 1310	Es 1130 KPRC 2 TX 1200	22 tr 0105 KWWL 7 IA 300
0203 KOA 4 CO 820	1215 WJXT 4 FL 1295	Es 1200 KAMR 4 TX 965
0235 WNGE still coming	1230 WESH 2 FL 1410	1230 KNOP 2 NE 585
in strong! Gave up	1400 WSB 2 GA 1010	1255 KWGN 2 CO 820
and went to bed	1430 WTVY 4 AL 1160	24 tr 0205 WITI 6 WI 335
0125 WNGE 2 TN 805 0145 KWGN 2 CO 820 0200 KOAI 2 AZ 1310 0203 KOA 4 CO 820 0235 WNGE still coming in strong! Gave up and went to bed 1130 WFMY 2 NC 1000	1600 KETS 2 AR 840	26 tr 0125 WTVO 17 IL 350
1200 WTAE 4 PA 765	1630 KARK 4 AR 840	WCEE 23 IL 350
KDKA 2 PA 765	1800 WDIQ 2 AL 1125	27 tr 2010 KAVT 15 MN 220
1230 WGR 2 NY 720	1930 WCBI 4 MS 945	29 Es 1250 KWGN 2 CO 820
1700 KMID 2 TX 1170	15 Es 0130 KENW 3 NM 1170	30 Es 1655 WESH 2 FL 1410
1725 KDBC 4 TX 1310	0145 WREC 3 TN 835	1730 WJXT 4 FL 1295
1800 KTWO 2 WY 755	0150 WTVY 4 AL 1160	
1830 KTVX 4 UT 1080	0150 WTVY 4 AL 1160 WNGE 2 TN 805	(some relogs omitted)

\*The call letters were clear, but it could have been produced by WPBT airing over another station, like WGBH does a lot. Also could be Es + Gulf Tropo... Tropo has picked up a bit, but I'd still say it's pretty poor. Bruce Elving tells me that tropo here comes alive in the Fall, and the rest of the year is pretty dead. I haven't seen the Fall, but the rest of the year is certainly dead. Duluth log total stands at 108... May thousand-mile ducts smile on your antennas = Buck (Gee, I didn't know ducts could smile, Buck! ..de)

Pat	Dy	er,	5315 S	il	ver	tip Drive	, San	Anton	io, Te	ca	3	78228	(CST)	(	01 - 1	06 June	e)			
			WNGE						WFMY				-03	Es	2050	KVVU?	5	NV	1040	
10.00		1659	WAVE	3	KY	945		1206	KDKA	2	PA	1280			2135	XHBS?	4	SI	N 700	
		1725	thru	6				1220	WTAE?	4	PA	1280	04	Es	0959	WJBK	2	MI	1225	
		1729	WSJK	2	TN	1010		1225	WPSX?	3	PA	1370			1005	WWJ?	4	MI	1225	
		1750	MUF 8	9.	7 M	Hz		1229	WDTN	2	OH	1075			1029	WKZO	3	MI	1140	
		1753	WBTV	3	NC	1105		1259	WSAZ	3	WV	1100			1059	WCIA	3	IL	935	
		1759	WSB	2	GA	880		1320	WOAY?	4	WV	1150			1245	WJBK	2	MI	1225	
		1810	WJBF?	6	GA	1105			WDTV?	5	WV	1220	04	Es	1358	MUF 9	9.	1 M	Iz	
			WESH					1327	WTVR?	6	VA	1325			1657	KTCA	2	MN	1110	
02 E	ŝs	0720	WFMY	2	NC	1175		1359	WSJK	2	TN	1010			1659	WMT	2	IA	945	
			WOAY?	4	WV	1150		1525	-35 WB	AΥ	2 1	NI.			1710	WCCO?	4	MN	1110	
		0840	WDTN	2	OH	1075		1812	Cuba	2						KFYR?	5	ND	1200	
		0847	WAVE?	3	KY	945		1859	WPBT	2	FL	1150				WDAY?	6	ND	1210	
		0905	WCBD?	2	SC	1120		1905	WTVJ?	4	FL	1150			1932	KMTV	3	NE	830	
		1850	WFMY?	2	NC	1175			XHTV?	4	DF	690			1955	WOWT?	6	NE	830	
		1925	WSJK?	2	TN	1010			KOAI?	2	AZ	855				KHAS?	5	NE	770	
		1929	WSAV?	3	GA	1050		1910	KORK?	3	NV	1050			2015	KTCA	2	MN	1110	
		1930	WCBD?	2	SC	1120		1925	WCBD?	2	SC	1120				KSTP?	5	MN	1110	
03 E	8	1005	WCBD?	2	SC	1120		2027	MUF 98	3.	7 M	Ιz	05	Es	1059	KTVQ	2	MT	1245	
		1022	WCIV?	4	SC	1120		2050	KVOA?	4	AZ	750				KID	3	ID	1215	

Pat Dyer continu	ued			
05 Es 1100 KXJB? 1110 KXLF?			MUF 98.7 MHz CBWFT 3 MB 1410	2152 KTCA 2 MN 1110 0859 WGNO? 26 LA 510
1110 KALF:		25 1555	-1635 KTCA 2 MN	WRBT 33 LA 450
1129 KGFE 1158 KUSD			KOTA 3 SD 1040 KTCA 2 MN 1110	1515-2250 thru 6 1633 MUF 105.7 MHz
1200 WDAY?			WCCO? 4 MN 1110	2140 KGFE? 2 ND 1240
1230 CBWT?	6 MB 14	10 2125	KNXT? 2 CA 1190	2230 KTWO? 2 WY 1015

A few good tropo openings in here amidst the Es pile. In fact, sometimes the tropo is so strong, it covers some Es. 73 = Pat = WA5IYX

Doug	Everitt	. 1710	W Ma	ine.	Enid,	Ok.	Lahoma	73701	(CDT)	(10 J	une -	- 09 .	July)		
	1758 KG		ND	-	17	tr	0903	KOSA 7 KSWS? 8 KWAB 4 KLRN? 9 KSAT 12 KENS 5 KDKA? 2	TX 410	2	5 Es	1415	XEFB :	3 NL	
	1759 K		ID		-		0910	KSWS? 8	NM 440	1080-		1420	XELN?	4 COA	
	1825 KI		ID				0945	KWAB 4	TX 350			1445	XHD	4 TAM	
	1828 KI		ID		18	tr	2305	KLRN? 9	TX 480			1915	KNXT	2 CA	
	1900 K	AID 4	ID					KSAT 12	TX 480				KNBC	4 CA	
	2015 KG		NV				2315	KENS 5	TX 480				KTLA	5 CA	
	2025 KV		NV		20	Es	2105	KDKA? 2	PA				KORK?	3 NV	
	2028 XI		BCN					WPSX 3						3 CA	
13 Es	1855 W		FL					WJBK 2				1934		4 FL	
	1858 WI							WWJ 4						2 FL	
	1904 W							WTOM 4					WCBD	2 SC	
	1908 XI							CKSO? 5						3 FL	
	1915 W							MUF 107							Hz
tr				350				WFMY? 2					KATC		
	K	ATV 7	AR 3	350			1000	WCBD 2					****		
14 Re	1320 W	PC A	DC.				1025	WSAZ? 3	WV	2	6 Es	1709	XEEB	3 NT.	
14 10	LUZU WI	PTC 5	DC				1023	WOAY? 4	WV	-		1721	XEFE	2 TAM	
	1325 W	MAR 2	MD					WDTV2 5	WV	2	7 Es	1050	WESH	2 FI.	
	LUZU W	ATV 7 RC 4 TTG 5 MAR 2 TAR? 3	TIA				1050		IL			-050	WEDU	3 FT.	
	1625 W		NY				1033	CKVR? 3	2000000					4 FL	
			NY					WTVH? 5				1057	WPTV		
	1630 M			1-			1100	CKGN 6					WIHS/W		PT
	1640 W							WUND 2				1101	WCIX		r L
	1646 W		PA					WUNC 4		2	0	1020			450
	1754 W.						1013	WRAL 5			0 11		WREC		
	1800 W							WWAY 3						5 TN	
		CMH 4						WCYB 5					WHBQ 1		
	1912 W							MUF 107							
								thru 5					KAIT		
15 5-		PVI 6						MUF 107							
15 E8	0910 K	VVU 5			22	LS	0040	WSYR 3	NV FILL				KATV		
	0912 K						0039	WTVH 5	NI				WEDU		330
			AL				0001	WBEN 4							2 171
11	0913 K							WSVA? 3					WCBD		ZEL
10 LL		LBK 13						WBTV 3			O EB		thru 5		
-	1725 KI			200				WCBD 2		,	1		local		
ES		NBC 4						WFMY? 2					WCBD		
		TLA 5						WFBC 4		0					
								WWAY 3		_					
17										7	2 E8		WCBD WWAY?		
1/ tr	0815 KI			280				WRAL 5							
		73AW?		200				WUND 2		0					
	0850 K	TXT 5	IX Z	190			1000	WUNC 4	NC		/ ES	1000	WCBD	2 50	
	right	thru KO	JCU ^	200	2,		1833	WEDU 3 KORK 3	r L			1012	WWAI	A CC	
	K	CRD 11	TX 2	180	24	ES	1723	KOKK 3	NV			1700	WEDG!	4 50	DE
	10	DDK TO	T41 -	-00			1,23	WILLIN T	411			2,20	10011	*****	DF
	0855 KI	MID 2	TX 3	380	0.5	-	1015	KCRL? 4	NA	<u>c</u>	-			2 NC	
	0859 K	BIM 10	NM 4	140	25	ES	1012	MUF 107	.9 MHZ				WCYB		
	ODOS I	FDW 12 MOM 9	NM 3	330			1215	XEW 2				1033	WIAK	7 0 W	u
	0902 KI	MOM 9	TX 4	130				XHGC 5					MUF 10		

For the first few days of July, I had very little time to DX, but I hope this will improve as time goes on. I may only have time to jot down the MUF in the log in such cases, since even tentative IDing is often impractical. WCBD seems to be in very regularly this year, as usual, slamming a nasty Ø against KTEW, which doesn't make the cable people too happy, since the complaint calls roll in; in fact, WCBD often dominates the channel on CATV. By the way, Bob Young, 1502 W Broadway, here in Enid, wants everybody to know he's still alive; just hasn't seen much DX due to lack of time. He did mention to me, though, seeing some tropo on the cable after signoff of the regulars, plus some unID Es on his rabbit ears. That should do it for this month... 73 & the Best of DX,

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# the RHOMBIC

Roderick Luoma Engineer, WJBK-TV Detroit, Michigan

Every DXer at some time or other in his career has probably wondered what a rhombic antenna could do for his career, reception of those precious microvolts. Unfortunately, the space required for such a project rules out this receptor for most DXers, including myself in my metropolitan location. When I got married some years ago, however, the ideal situation arose due to the fact that my wife's parents live on a forty-acre farm in north central Minnesota. The terrain is quite flat and the area is relatively free of strong local VHF stations (known to the DXer as paradise). Yet there are many distant stations just waiting to be drawn into a thirsty RF amplifier. So I have all the excuses I need! Now all I have to do is convince my in-laws that they need a rhombic. Well, this isn't too difficult a job because they receive with regularity only one network source, that being NBC from KCMT-7 Alexandria MN and its satellite KNMT-12 Walker. Minneapolis, St. Paul, Duluth and Fargo stations are received, but with characteristic fading in the deep fringe area in which they live.

Because I work for a CBS station and another network source is desirable, that is the network I thought would be appropriate. Now the selection is narrowed down to KXJB-4 Fargo, WCCO-4 Minneapolis, and KDAL-3 Duluth. KDAL is the least likely choice at 146 miles. Fargo is the closest at 112 miles, but I chose WCCO at 142 miles because I felt they would provide better local programming, and more TV and FM stations are available in that direction.

Some hours were spent doing research on rhombics. The public library provided some information, but most information was read in the ARRL Handbook and Terman's Radio Engineering. The motivating force, though, that led me to begin this project was the series of articles in July, August and September 1960 issues of DXing Horizons, which described a rhombic installation at Marathon, Ontario on the north shore of Lake Superior. I figured that if reasonably good results can be had of WBAY-2 at 300+ miles, 142 mile reception here should be pretty good!

The name "rhombic" comes from the word rhombus, which means diamond-shaped, the configuration of the antenna as viewed from above. After checking the theoretical gain charts and practical considerations, I decided that 6 wavelengths on a leg would be my choice. However, in view of the fact that KXJB is nearly opposite in direction from WCCO on the same channel, maximum front to back ratio is desired -- and to achieve this with a rhombic the leg length should be an odd multiple of 1/4 wavelength; so I chose 5-3/4 wavelengths with channel 4 video at 67 MHz as the design center. Using the formulas in the ARRL Handbook, the leg length came to 84.5 feet, the width or short diagonal came to 63.2 feet and the overall length or long diagonal came to 156.6 feet. The lead-in connection is made where the two long sides come together. If the opposite end of the lead connection point is left open, the antenna is narrowband, working well only at the designed frequency and equally well in both forward and backward direction. So to achieve a broadband and undirectional characteristic, the front end must terminate in an 800-ohm resistance, which is the approximate characteristic impedance of the rhombic antenna. Because of this 800 ohms Z, one can't employ conventional 300 ohm line and expect good results. A logical choice for this problem would be a matching transformer for 800/300 ohms, but I've never seen one and don't have the equipment to build one. Another method would be to use a quarterwave matching stub, but this idea was discarded because such a device is frequency selective and this would defeat the broadband characteristic we desired in this installation. Another more practical and inexpensive alternative is the tapered transmission line. It is constructed so that the 800 ohms Z of the ante-na is connected to the 300 ohm line by 2-20 AWG wires gradually tapered from a distance of 7 inches to 7/16 inch between them. Polystyrene rods are used to maintain the correct taper. If this taper is done slowly in terms of wavelength, the power transfer is very efficient. In this installation, the taper is accomplished over a distance of 25 feet, or just short of 2 wavelengths on channel 4. I experimented with both the theoretical logarithmic taper and the practical linear taper as described by Terman, and found the linear definitely superior in performance.

A six wavelength rhombic is a very directional antenna with the main lobe being about 6 degrees wide at the 3 dB half-power points, with many minor lobes also existing. Orientation is quite critical and must be determined using a surveyor's instrument. Fortunately, I was able to borrow a surveyor's

THE RHOMBIC AUGUST 1977

transit and a reasonably accurate compass. With my brother-in-law's help, I laid out the proper direction of the long axis of the antenna. I wrote to the Minnesota Department of Highways to find out the magnetic declination in the area (the degree of variance between true north and magnetic north), and with this information I was able to plot on a Highway Dept. map the proper orientation of the antenna. One problem remained: WCCO had applied for a new transmitter location 3 degrees north of its old one. So due to the lack of high accuracy in laying out the antenna and the new tower location, I decided to construct the antenna with a provision to orient it. (A rhombic on a rotor?) Four 25-foot telephone poles are used to support the antenna; each has bolted to its top a double 2x4 extension putting the total height at 35 feet. With four feet under the ground, the antenna height is actually about 30 feet. The front pole has attached to it a 12-foot crossarm at the top with a pulley system to allow a horizontal swing of about 10 feet or 4 degrees. A tractormounted post-hole digger was found to be very useful to supplement a manual digger. Erection of the poles proved to be the most treacherous operation, but thanks to a couple of uncles, my father-in-law and a tractor-mounted hydraulic manure scoop, we got the poles up in one piece (although the heavy front pole was in doubt at one point).

The antenna itself is constructed of #14 copperweld wire, which I found to be more than adequate; in fact, any larger wire would be almost impossible to work with. E.F. Johnson #104 insulators were used as well as some custom= made fiberglas blocks made by my brother for use at the antenna lead-in and terminating points. Antenna soldering and assembly were done near the house and carried to the location, raised into position with rope and pulley. Ra-yon-core plastic clothesline, claiming a 500 lb. capability, was used to support the antenna from the poles.

I chose 300 ohm open-line lead-in because of its low-loss characteristic and relatively low cost. Even though the conductors are #18 copperweld, I discovered from several line breaks that considerable support is necessary. A lighter-weight clothesline was strung parallel to the lead path with suspended snap-type stand-offs (polyethylene) holding onto the spacers of the openwire line. Regular open-wire stand-offs were found unsatisfactory because the wire had a tendency to break where the screw pressed against it; the continuous flexing caused by the wind created this problem.

A Winegard AP-83 preamp was installed at the head-end near the base of the tapered matching line, with lightning arrestors on either side of the preamp. (This antenna in an open field is a great target for lightning.) Another arrestor was used at the point where the lead enters the house; this apparently wasn't good enough, because the transistor has blown twice due to static electricity! (I solved the problem by removing the preamp; 850 miles is a long way to go for a service call!)

Now to the heart of the subject: how does this rhombic compare with the Winegard SC-55X antenna previously installed here? Comparisons are made without preamps on either antenna. I think results are good. A Jerrold signal strength meter indicates the rhombic gain is slightly more than 6 dB on channel 4, or double the voltage delivered by the Winegard. On KTCA-2 the gain is also 6 dB, and on KSTP-5 slightly lower at 4.7 dB. The test setup enables an immediate switch from one antenna to the other.

Since few of us have a signal strength meter, this doesn't mean an awful lot. What you want to know is what is the difference on the screen? My notes say that the 6 dB increase on channels 2 and 4 is quite evident with appreciable decrease in snow and noise. On channel 5 the signal increase is still quite evident, but not as dramatic as on 2 and 4. When the video drops to unreadable on the Winegard, larger detail is still readily apparent with the rhombic. Also noticed was the reduced effect of MS co-channel interference, due probably to the sharper lobe of the rhombic. Actual signal strengths varied from 0 to 220 microvolts during my observation periods. WCCO-4 was very good to excellent for about 60% of the time, fair only 30%, and poor the remaining 10%. Deep fades would occur occasionally but only last about 5 seconds. What actually appeared to be happening was multipath reception, cancelling each other when 180 degrees out of phase. This seemed to be confirmed by the frequent ghosting that occurred. Most of the poor reception was due to CCI from KXJB-4. Perhaps I can achieve a better rejection of Fargo by varying the 800 ohm termination, as changing the termination resistance is supposed to steer the back lobe of the antenna.

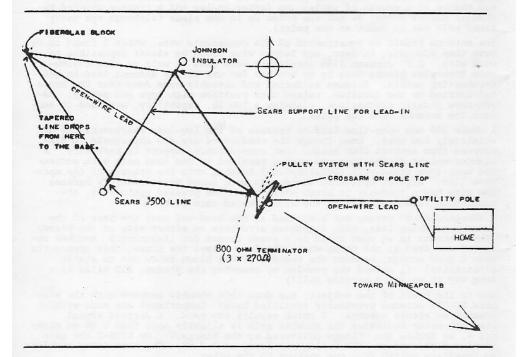
FM radio signals appear to be intercepted quite well, too. The receiver is an old Telex Phonola which is probably not the best in selectivity, but it delivered good stereo 95% of the time from FM stations in the Twin Cities.

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THE RHOMBIC AUGUST 1977

Thus, the rhombic has illustrated its broadband performance over the range of 54-108 MHz. But what of high-band TV channels 7-13? Here, unfortunately, it doesn't cut the mustard. Performance is bad, with about 6-8 dB less gain on channel 9 than with the Winegard. This is probably due to what Terman says: that at frequencies much above the center frequency for which the antenna is designed, the main lobe splits into two lobes. It is also stated that at frequencies lower than the designed center frequency, the main lobe broadens until the frequency is 40-50% optimum. Hence, good gain should be achieved to about 30 MHz.

Because of the poor showing on high-band, I decided to use this rhombic only for the FM and low TV bands. Through the use of a high-low antenna coupler, the Winegard SP-55X was used on the high-band channels. A Winegard CA-FMB coupler was used to tap off the FM signals to feed the FM radio, while the remainder of the rhombic signal feeds the 1958 RCA monochrome receiver.



Now you may say that this same signal increase on channel 4 could have been achieved with a pair of 8 or 10 element yagis, and this is probably true, although fading effects may be more severe with yagis due to the smaller capture area. However, what has been achieved is not only stacked yagi reception on channel 4, but also comparable increased strength on other low-band channels and FM frequencies as well. In summation, high-gain broadband performance is achieved at lower cost than a comparable set of stacked yagis by using the rhombic antenna. And besides, most anyone can put up a few yagis, but who has the opportunity to engage in such a challenging project as this in his lifetime?

73, Rod Luoma

ADDENDUM: In the summer of 1970, Rod purchased two Winegard SCY-ll cut-to-channel, wide-spaced yagis for yet another experiment at his in-laws' farm; his hope was to develop reliable reception of KTHI-ll in Fargo at about 112 miles. Unfortunately, this experiment wasn't successful, due to suspected terrain obstructions. KTHI-ll was received, and quite well at times, but not with the 90-95% consistent viewing level desired, according to Rod. --CWI

# Memorabilia



Robert J. Williams 251 6th Avenue East Twin Falls, Idaho 83301 Phone: (208) 733-3621 Deadline: 10th of worth

This month, MEMORABILIA again presents some photos of TV-DX of yesteryear, courtesy of Bill Draeb of Kewaunee WI:

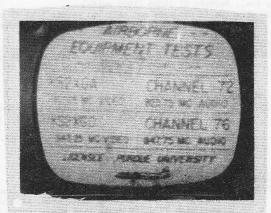


WFAM-59 Lafayette IN (now on ch. 18, WLFI)



WFAM-18 275 mi. Tr

Lafayette IM (now WLFI)



Airborne Equipment Tests
KS2XGA Channel 72
KS2XGD Channel 76
(May 1961)

Hope y'all are having a good Es season. 73s, gud DX, Bol

## C.C. [UNIDENTIFIED DX]

Frank Aden, Jr. 1535 NW Ithaca Bend OR 97701 (503) 389-5488 Deadline: 10th

AUGUST 1977 TV GUIDE DOES IT AGAIN!

The Oregon State Edition of TV GUIDE was split into two new editions as of July 9th. The two new editions are the Eugene Edition and the Southern Oregon Edition. The Portland Edition remains unchanged. The Eugene Edition (use EUG for code) contains KEZI-9, KVAL-13, KOAC-7, KATU-2, KOIN-6, KGW-8, KPTV-12, KVDD-3 and KOEI-5. The Southern Oregon Edition (use SOR for code) contains KEZI-9, KVAL-13, KATU-2, KOIN-6, KGW-8, KPTV-12, KCEY-11, KOAC-7, KVDD-3, KCTI-2, KOEI-5, KSYS-8, KTVL-10, and KPIC-4.

Those stations listed in the old Oregon State Edition but not in either new editions are KIEM-3, KVIQ-6, KEET-13 and KRCR-7. I suspect they have been added to the North California Edition or are part of a new edition not yet known here. I hope to have details on their location by next month.

If there are any changes in your edition of TV GUIDE please let me know by sending a card or letter.

#### FM unIDs

Bruce Elving, 18½ E. Fifth St., Duluth MN 55805 (1977 unIDs)
Thu Jun 9 Es 96.9 1815 CDT- -ABC-FM news, station in mono. No SCA. Probable KMTN in Jackson WY but lists for it show it as steree, not ABC, and with a music SCA. Has it dropped \$ (or drops it during ABC newscasts), taken on A, and quit SCA? Or was it something else. Skip at this time was in from UT and WY.

Bruce also asks identity of a station on 88.7 received by MS (probably to north) by Mike Dalton in Clearwater FL with call "WSF\_". Bruce reports he has no idea who it could be. Can anyone help?

Paul Traska, 64 Weaver Ave., Buffalo NY 14206 (1977 umIDs)
Mon Jun 6 Es 90.1 1100 EST- -Could not make out call but sounds like KB with 3rd letter
P or T. Not in FM Atlas, new station or new call? Ant.
SW.

90.1 1700 EST- -Sign off. Ant. SW.
Thu Jun 9 Es 92.1 1400 EST- -Soft music, The Performers. Station break as Telephone
City. TV chs 3 & 6 Winnipeg in. (Could this be CKY?
---FEA)

Frank Aden, Jr., 1535 NW Ithaca, Bend OR 97701 (1977 unID)
Fri Jun 10 Es 103.7 1350 FDT--"KXQR". No listing of this call in FM Atlas. Format was old rock. New station or new call? PTA: MN, SD, ND etc

#### TV unIDs

Paul Traska, address above (1977 unIDs)

Thu Jun 9 Es ch 6 0224 EST- -Double Hop! "Night Cap News" with Doug Lund. Not real sure if 2Es but suspects WDAY, KPLO, KWNB or KREZ. (I sure wish TV GUIDE would list actual names of news shows as they are no help in this case. ---FEA)

ch 2 0340 FST- Double Hop! "TV 2 News Break/State Local". Logo had

TV NEWS BREAK at top, above a large 2. Bottom with STATE

LOCAL. In and out thru KUTV but weaker. Suspect KTWO,

KTVN, KTVU, KECI and KCTI.

ch 4 0345 CST- -GST slide with KGIN-11. KSNB? (Probably not as KSNB is ABC and a member of NTV, KGIN, sat. of KOLN-10 is CBS, translator? ---FEA).

ch 3 0358 PST- -"Johnny Carson" ending (NBC). Came in with "Tomorrow Show". At 0409 two girls modeling fashions, at 0418 ad for Chicken. Fergerson--Lombard mentioned. Movie at 0501. Suspects KCRA and KORK.

Paul Traska continued.

(KCRA does not list late night movie but KORK does. ---FEA)

Mike Hogan, 9224 Cottage Grove Ave., Highland IN 46322 (1977 unIDs) Mon May 30 ch. 3 Es 1930 CST- - "Dolly" variety show, FTA: S-SSE. (TV GUIDEs for south no help. ---FEA).

ch 3 Es 2000 CST- -"Little House on the Prarie" PTA: as above. (WLBT, WSAV, WRCB all check. --- FEA).

Sat Jul 2 ch 3 Es 2030 CST- - "Monty Python". FTA: SE or WNW. (Probably PBS, KLNE and WPSX are negative, WEDU ran an auction in my edition for the week I have it so unknown. --- FEA).

Frank Wheeler, 6589 Wattsburg Rd., Erie PA 16509 (1977 unID) Mon Jun 6 ch 4 Es 1727 EDT- -Gave call as KSFY. KSFY is on 13. (KPRY is a sat. of KSFY, I have seen the KSFY ID on KPRY many times also. ---FEA).

Robert Williams, 251 6th Ave. East, Twin Falls ID 83301 (1976 and 1977 unIDs) Sun Jun 27 ch 4 Es 1008 MDT- - "Oral Roberts". Suspect KAMR, KWAB, KMOL, KGET, KDFW, KDBC, KJAC, WWL, KTVY and KOB. KPRC-2 at 1058, KBTX-3 at 1059. This is for 1976.

Mon Jun 6 ch 3 Es 1102 MDT- - Farm and Market report. KGLO? KTVO? (KGLO has program

called "Town and Country" at this time. ---FEA).

ch 4 Es 1853 MDT- -"Billy Graham" Suspects, WCCO, KXJB, WTMJ, KFRY, CHFD or other? KTCA in at 1856.

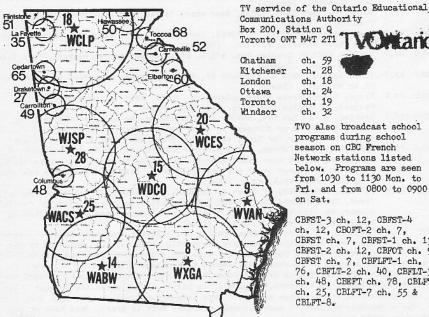
ch 4 Es 1936 MDT- -Movie with Dean Martin. Suspect KTVY, WCCO, KPRY, WTTV,

or other. KTCA in at 1903. 4 Es 2048 MDT--Baseball. Howard Cosell heard so it would be ABC. PTA: ch NE, SD.

4 Es 2109 MDT- - "ACTION NEWS" KSNB? KSNB seen at 2118. ch

3 Es 2125 MDT- -Wildlife show. XHBC? ch

3 Es 1853 MDT- -PES, "McNeil-Lehrer Report". Suspect KENW and KINE. Wed Jun 8 ch (KINE negative, KENW has not yet sent schedule. --- FEA).



Georgia Educational TV (list in May CCI)

Communications Authority

ch. 59 ch. 28 ch. 18 ch. 24 ch. 19 ch. 32

TVO also broadcast school programs during school season on CBC French Network stations listed below. Programs are seen from 1030 to 1130 Mon. to Fri. and from 0800 to 0900 on Sat.

CBFST-3 ch. 12, CBFST-4 ch. 12, CBOFT-2 ch. 7, CBFST ch. 7, CBFST-1 ch. 13, CBFST-2 ch. 12, CBFOT ch. 9, CBFST ch. 7, CBFLFT-1 ch. 76, CBFLT-2 ch. 40, CBFLT-3 ch. 48, CBEFT ch. 78, CBLFT ch. 25, CBLFT-7 ch. 55 & CBLFT-8.

CBC English TVO school list will be listed next month room permiting.

# **QSL CORNER**

Thomas J. Yingling, jr. 221 Pinewood Road Baltimore, MD 21222 Deadline: 10th Phone # 1-301-282-5649

TV-OSL

- ON CKPR 2 Thunder Bay, 87 N.Hill St, P?A 5V6, Send letter % kept SASE, signed by Ellen Bohn, Sec. to Dir of Eng. (Glasgow)
  - CBOT 4 Ottawa, Box 3220, K19 1E4, Send card % letter from Mrs. G. Ethier, Public Relations, CBC in 1 month. (Glasgow)
- SA CKCK 2 Regina, Box 2000, S4P 3ES, Send letter % coverage-map from Alex White, Dir of Tech. Oper. in 13 days. (Walker)
- CO KOAA 5 Pueblo, Box 876, 2226.TV Lane, 81002, Send letter from Kenneth Renfrow, CE in 1½ weeks. (Glasgow)
- MD WBAL 11 Baltimore, 3800 Hooper Ave, 21211, Send letter signed by John P. Frakenfield, Program Dir. (Cottan)
- NC WWAY 3 Wilmington, 615 N. Front St, 28401, Send short letter, but friendly in 6 days from Art Madeley, CE. (Swartz)
- NE KHAS 5 Hastings, 1414 W.4th St, 68901, Send letter from News Anchor Man, Lloyd Thomas with picture posteard of News Sitting, % booklet about Hastings % also send a few bumber-stickers from another local station. (Cottan)
- NY MOR 9 New York, 1440 Broadway, 1001B, Send qsl-card for MOR AM/FM with to written in 2 no signature. (Cottan)

FM-QSI

- AR KGUS 97.5 Hot Springs, Box 1089, 71901, Send along nice letter, brochure on Hot Springs
  National Park, station data sheets, including coverage-maps. Letter from
  C. J. Dickson, VP % Gen. Manager: We have received a letter from ft. Lauderdale, FL however, you are the first we have heard from the northern section
  (of the country)." Ken Simon from Ft Lauderdale? (Elving)
- FL WTMI 102.3 West Palm Beach FM-Translator from Miami 93.1, 2951 5. Bay Shore Dr. Miami, FL 33133. Send back prepared card for W272-- with power of 1 watt sign by Bill Elliott, CE. this is the first % only xltr in Florida. (Simon)
  - WYRL 102.3 Melbourne, Box 908, 32901, Send short letter in 5 days from Pat Vatauro, Gen, Manager. (Swartz)
  - WTAI 107.1 Melbourne, Box 1560, 32935, Send short letter in 4 days from Tom Hanssen, President. (Swartz)
- WGYL 93.5 Vero Beach, 1500-20th St, 32960. Send letter; very appreciative in 7 days from Chris Hubbard, Manager. (Swartz)
- IL WCBU 89.9 Peoria, 1501 W. Bradley Ave, 61625. CE signature on my report. Frank Thomas, CE in 5 days. (Simon)
- IN WNAO 93.1 Indianapolis, 2835 N. Illinois St, 46208. Friendly memo from Bob Brockway, CE in 10 days. (Simon)
- ND KDSU 91.9 Fargo, North Dakota State University, 58102, Send letter signed by Jim Hetland, CE % also gave tech. details. (Aden)
- SD KOHU 104.1 Yankton, P. O. Box 794, 57078. Send letter signed by Lynn McColley, PD, Congratulated me on discovering their call letters (I heard Super O for id)
  - also, thanked for for tape, since many OXers send only a letter. (Aden)
    KKHJ 93.9 Rapid City, Pat Cahoon, sales manager sends brief verification letter, x
    mentioning having been heard once in Louisville by skip (Fleischaker?)(?),
    plus many brochures about the station x area. (had this station a call-change
    ? my book shows KKLS, ed.) (Elving)
- TX KTEP 88.5 El Paso, University of Texas at El Paso, 79999. Send letter signed by U. L. Brown, CE. Reported that it was only reception reporte received so far this summer. He said they get only 1 or 2 reports each summer, % also that my report is their most distant. (Aden)
- WY KFBC 97.9 Cheyenne, My first qsl from Wyoming was a letter from Ron Kercher, program director, who belives they are vertically polarized % directional to the northeast on FM. Duluth is the greatest distance KFBC-FM been heard.(Elvino

northeast on FM. Duluth is the greatest distance KFBC-FM been heard. (Elving) Reporters are Rick Glasgow of Ackerman, MS, Edward R. Cottan of Chemapeake, VA, Bruce F. Elving, of Duluth, MN, Shel Swartz of West Palm Beach X along with Ken Simon, X Frank Adem of Bend, OR X Bob Walker of Westport, KY. WOW!!! is all! can say after the support! got. I must say thanks alot for all your help with this column for! got so much mail that! got enough for a few more columns. I even got new reporters that is great. Just keep up your support, and I will be happy. Next month will be all fm stations X even more: 73's.

## ASIAN-AFRICAN FM CHANGES

Mike Dorner, Jr. 1409 Hymelia Av. Metairie, La. 70003

Data based on a line-by-line, page-by-page comparison of the 1975 and 1976 world Radio-Television Handbooks. This tabulation is the second of two parts and completes the study. For a list of 1975 European FM changes, see WUD, May, 1977, pp. 14-15.

Af	r	i	C	a
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NEW	STATIONS

Angola Luanda	104.45	3k	CR6RD-FM
Canary Isla		-	411-110-171
Arrecife	90.7		R. Larizarote
Liberia			
Buchanan	93.6		ELNR-FM
Madeira			
Funchal			CSB220
Rhodesia			
Salisbury	96.9		RBC African Svo
Salisbury	99.6		RBC General Svc
South Afric	8.		
Cala	97.95	3k	R.Bants/S. Soth
Matatiele	106.18	3k	R.Bantu/S. Soth
Reneke	106.70	3k	R.Banty/S. Soth
Behtlehem	104.98	3k	R.Bantu/Zulu
Nelspruit	98.35	3k	R.Bantu/Zulu
Okakarara	95.43	3k	R. Herero
Windhoek	87.69	0.1k	R. Damara/Nama
Khorixas	99.73	0.3k	R. Damara/Nama
Upper Volta			
Ouagadougou	92.0		R-TV Voltaique

#### DELETED STATIONS

Angola		CE COOLINGE	
Carmona	89.84		CR6RU-FM
Lobito	94.14	0.1	k CR6RS-FM
Luanda	105.4	3k	Emisora Oficial
Luanda	105.9	1k	Voz de Angola
Mozambique			
Riera	90.0	50w	Radio Pax

Angola	PO	WER I	NCREASE
Benguela	92.76	0.lk	CR6RF-FM
Luanda	93.5	1k	La Voz de Angola
Morocco			
Rabat	92.1	3k	RTF Morocaine
Rabat	87.9	3k	RTF Morocaine
Casablanca	96.1	3k	RTF Morocains
Casablanca	90.0	3k	RTF Morocaine
South Afric	8.		
Walvis Bav	05.17	50w	Radio Ovambo

#### POWER DECREASE

South Afri	ca		No. of the last of
Windhoek	106.69	0.1k R.	Damara/Nama
Windhoek	106.69	0.1k R.	Herero

#### MHZ CHANGE

South Africa	
Piet Relief	R. Bantu/Zulu from 104.2
	to 105.64 3k
Dullstroom	R. Bantu/N. Sotho from
	100.23 to 100.05 3kw

A comparison	of	the	1976	and	1977 Y	orid
Radio-Televis	sior	ı Haı	ndbool	cs is	under	way.

#### Mid-East

	NEW STATIC	ONS
Iran	(C)	
Kermanshah	106.0	RTV Iran
Ahwaz	106.0	RTV Iran
Shiraz	106.0	RTV Iran
Jordan		
Amman	102.9	Radio Jordan
Turkey		
Istanbul	88.2 10	k TRT-3
ener Maria	DELETED ST	TATION
Cyprus Famagusta	95.4	BFBS

#### NAME CHANGE

Beirut	98.3	10k	Rad	io	Lebanon
Lebanon	PENCER	INCR	FASE		
Sina Oros					Bayrak Bayrak
Sina Oros	0+ 6	101-		-	n 1-

#### FREQUENCY CHANGE

Tatante					
Turkey Istanbul	99.5	to	99.6	łk	Istanbul

#### Asia

	NEW	STAT	IONS
Bangladesh			
No mention of	forec	ast :	2kw FM stations
in Dacca, Ch	ittagon	g, R	ajshahi, Sylbet.
Taiwan (Form	osa)		
Taipei	103.3		BED 3 (BOC)
Taipei	101.7		Chiso Dr. Stn.
Taipei	102.9		Ching Cha Stn.
Kaohsiung	103.3		BED 5 (BCC)
Kaohsiung	104.9		Ching Che Stn.
Yuli	103.3		BED 51 (BCC)
Hong Kong	97.0	50k	Radio Hong Kong
Japan			
Tokyo	80.0	10k	JOAU
Nagoya	80.7	10k	JOCU
Osaka	85.1	10k	JOBU
Fukuoka	80.7	3k	JODU
Malaysia			
Kuala Lumpur	92.8		R. Malaysia/Capital City Service
Philippines			
Quezon City	107.9		DZEC-FM
Manila	94.7	3k	DWBL-FM
Manila	102.7		DZCH-FM
Makati	93.1	2k	DYTR-FM
Quezon City	105.1	1k	DZEM-FM
Baguio City	99.9		DZWT-FM
Makati	92.3		DYNB-FM
Vietnam			

If your target station does not leave the air, this may make logging it less day AM you pick to listen.

(7) Listen for key identification phrases on bursts. Weather reports for a specific area and local advertisements are very good indicators of what it is you are getting. I personally must have the actual call letter ID taped before I will count a new state, which can be frustrating. Back in 1970, I sat on 93.7 through the first two days of the Geminids shower in December trying to pull in either KMOT or WDAY on that frequency in North Dakota with a definite call identification. I had dozens of snatches of "Weather for North Dakota" will be..." and "Shop at XXX in Fargo or Moorhead..." and I finally had to go to 93.3 to log KSJM in Jamestown ND---which took me exactly 10 minutes on the channel. I'd spent nearly ten hours on 93.7 in frustration but it only took ten minutes on 93.3!

73, Bob Cooper, Jr.

#### WTFDA MEMBER SURVEY RESULTS (continued from page 13)

AUGUST 1977

The issue of columnar vs. paragraph form for DX reports was largely decided in the last WTFDA member survey, with those responding overwhelmingly in favor of the columnar format for both TV and FM DX reports. Now that this challenge has been answered, I hope the matter can again be put to rest, though comments are always welcomed by your column editors and in FEEDBACK.

So ends this compilation of WTFDA's 1976 membership survey. I've enjoyed compiling your replies (most of them!), and I hope those of you who returned your questionnaire cards have enjoyed seeing your opinions in print. Although some WTFDAers seem dissatisfied with minor aspects of WTFDA and the VHF-UHF DIGEST, I believe the majority opinion is best expressed by member Bill Grant of MA, who writes: "In general, I've always been pleased with the time and effort put into the club by all of its editors and publishers." All of us appreciate the kind compliments expressed in this report, and hope we will continue to please you; thanks for giving us that opportunity by joining WTFDA!

Next time in FEEDBACK: more on the AC-4990 and Janowiak's POLARIZATION series.

Clarke W. Ingram, Editor-in-Chief, VHF-UHF DIGEST

Clarke

ASIAN-AFRICAN FM CHANGES (continued from previous page)

AUGUST 1977

Vietnam Saigon	99.9	Time & Music	Australia & Pacific
Thailand	DELETED ST.	ATIONS AFRTS	NEW STATION Johnston Island 99.5 50w AFRTS
Udorn AFB Korat AFB	101.9	AFRTS	ABBREVIATION KEY
Taiwan	POWER INCR	EASES	R.= Radio Svc.= Service
Taipei Taipei Japan		AFNT (AFRTS) AFNT (AFRTS)	RBC = Rhodesian Broadcasting Company TRT = Turkish Radio and Television
Tokyo	82.5 10k FREQUENCY	NHK	BCC = Broadcasting Company of China AFRTS = Armed Forces Radio/TV Service AFNT = Armed Forces Network Taiwan
Thailand Bangkok 90		HSA Radio WTTB	NHK = Japan Broadcasting Company (AFRTS and AFNT are USA operations)

SUMMARY. Africa: South Africa continues to expand its FM networks with new relay transmitters; the new Liberian FM is a private station operated by a mining company for the benefit of its workers. Morocco has increased power of its FM stations and seems to emphasize them more. Meanwhile, four deleted stations in Angola and one in Mozambique represent the turmoil in much of Africa in 1975, with confiscation of private stations in both countries. Asia: Iran seems to be building an FM network, while Turkey is starting an FM-only third service. Four new private commercial FMs in Japan are now listed, and Thai pressure has forced the closing of two USAF bases and their FM stations.



Deadline: 10th of month

AUGUST 1977

Hank Holbrook, 7211 Chestnut St., Chevy Chase, MD 20015 (DXing done at cottage at Fair Haven Cliffs, MD) Regency AR-136D (aircraft, Finco 10-el FM Yagi & Blonder-Tongue FM booster), Regency DR-200 (152-174 MHz, Allied vertical rod). QSLed, GMT used

```
Chesapeake Bay (near Fair Haven)
(Danmark, sailing vessel, tall ship)
ov Kenton, DE(Church of Natural Living;
7-11: 1018, CXDK
                         156.6/.8
                         156.65
 7-18: 1650, N1286T
                         128.1
                                     Piper Cherokee PA 28, R180,1-eng,4-seat)
2-21: 1719, N8401AA 128.7
3-11: 2202, N7139P 119.0
                                     nr Newark, NJ(American 9; B-707-323CC; 25 w)
                                     apx jct Susquehana R .- PA/MD border (Mr. Wer-
                                     ner Schumann; Piper Com. PA24, 1-e, 4-s; 20 w)
                         119.2
        2208, N17MN
                                     10 mi e Bal. (Chesapeake Amphibious Air. Inc)
   12: 2130, N503CC
                        125.0
                                     nr Kenton, DE (Hugh R. Sharp; Cessna 411, 2e8s)
                                     (Air Canada 933, B-747)
between Dulles & JFK (Braniff 18; 25 watts)
       2253, CFTOD
                         134.0
      1810, N7299
                         134.0
   19: 2006, N9 20BS
                        118.75
                                     20 mi w Bal. (Bethlehem Steel Corp.; Grumman
                                     Gulf Stream; 2-engine, 21-seat; 25 watts)
       2010, N770PA 118.75
                                     midway JFK-Dulles (Pan American Clipper 67;
                                     B-747-100; 25 watts)
  26: 2124, N1180Z
                       134.0
                                     north of Bal. (Laurance S. Rockefeller: Jet
                                     Commander 1121, 2-engine, 10-seat) ov Severna Park, MD(Hop Flight, Inc.;
4-16: 2031, N6013J 119.7
                                     Cessna 150 aerobat)
```

#### Martin J. Theil, 12 Princeton Dr., Holiday, PL 33589 Bearcat 101

```
154.43 Tampa, FL (fire, KIA 653)
155.34 Tampa (medic)
150.905 Tampa (auto club)
152.36 Tampa (taxi)
                                                39.50 Paxton, IL
                                                39.46 Yorkville, IL
35.42 Columbus, OH (mobile phone)
                                                35.26 Detroit, MI (mobile phone)
 47.54 Wisconsin
                                                35.50 Detroit
35.50 New York, NY (mobile phone)
 30.42 Canada (pager)
 35.22 Scranton, PA (pager)
                                               35.42 Philadelphia, PA (mobile phone)
 33.78 Millburn, NJ
```

My loggings. SP-600-JX-10, Allied A-2586 with 2 30' wires at 12'(ne-sw, nw-se runs); 50-MHz with Swan 250/Ameco nuv. preamp. 5-el CushCraft horiz Yagi at 18'; YOR on Heath GR-98 with 6-el FM at 20'; Es unless noted, new underlined, GMT used

```
6-16: 2204, KOE 257
                              35.22 Phoenix, AZ (pager, tone)
        2205, KIN 645
                              35.22
                                        Miami, FL (pager, tone)
 19: 2223, K0E 257
27: 0602, KKI 445
30: 0346, KAA 893
7-1: 0027, "ILNK"
3: 0329, KAA 893
                            35.58
35.22
109.9
                                        Houston, TX (pager, tone) tropo
                                       St. Louis, MO (pager, tone)
Lincoln, NE (ILS, tone c.w.)
                                       Hilo, HI (amateur, ssb) 3Es
Ewa Beach, HI (amateur, ssb/cw) 3Es
        2020 KH6IAA
                              50.1-
                              50.1-
         to
                 кн6н1
        2315
               KH6IJ
                              50.1-
                                       Honolulu, HI (amateur, cw)
    7: 0612, KAA 893
```

French 50.1 beacon into New Brunswick 40 minutes on June 11. July 3 Hawaii to Nova Scotia 6-m. June 26 & Jul 11 more California to Japan 6-m. June 26 6-m Hawaii to Alaska, Jul 3 Alaska to Guam. Several 2-m Es events in June and July among US stations.

73. Pat



## WORLDWIDE TV-FM DX ASSOCIATION

TOUGH TO BEAT!

### Established 1967

SERVING THE VHF-UHF DX ENTHUSIAST



DUES: USA and Canada, \$11 (via first class); overseas, \$18 (via air mail). The VHF-UHF DIGEST is the official publication of the Worldwide TV-FM DX Association. WTFDA is a non-profit organization and a member club in the Association of North American Radio Clubs (ANARC).

Persons contributing their efforts for the Worldwide TV-FM DX Association do so without any monetary compensation. Dues and all other revenue cover printing, postage, and other expenses.

The WTFDA is governed by a five-man board of directors, now composed of Morrie Goldman, Mike Hogan, Clarke Ingram, Pete Oprisko, and John Zondlo. ANARC representatives are Morrie Goldman, Clarke Ingram, and Pete Oprisko.

OMPTROLLERGary Olson
OOKKEEPER Bruce Elving
ROCESSING Dave Janowiak
ITERATURE Morrie Goldman
2

5	U	P	P	L	1	E	S	and	D.	X	L	I	T	E	R	A	T	U	R	E	WTFDA	member	rates	only.

REPRINT SERVICE	.Articles from May 1972 to the present are no A complete 1976 catalogue can be obtained for the second sec	
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All columns and feature articles to be printed in any VUD issue should be sent to editor Clarke W. Ingram, 5201 Colewood Drive, Pittsburgh PA 15236. All information for VUD columns should be sent to the appropriate editors; all club business (supply orders, etc.) should be sent to HQ in Whiting. SUPPORT WIFDA BY PARTICIPATING --- REPORT TO COLUMNS AND PURCHASE SUPPLIES.

Serving VHF·UHF DX Enthusiasts