

50 U.S. STATES IN FINLAND

by Richard E. Wood

Five European countries have a realistic chance to hear MW stations from all fifty US states plus the district of Columbia, as well as all Canadian provinces and the Northwest Territories and Yukon.

As anyone observing an azimuthal map might predict, they are Iceland, northern Norway, northern Sweden, northern Finland, and the Kola Peninsula/Murmansk area of the USSR. The definition of "northern" is imprecise, but Finns, including DXers, draw the line around Oulu. Australia and Hawaii are heard annually in and north of that town on the Gulf of Bothnia, but not south of it.

Owing to the lack of serious, properly equipped DXers, reception of all 50 states has not yet been reported from Iceland, Norway, and the USSR. I lack complete information from Sweden and do not currently know whether all states have been logged in northern Sweden. My information comes mainly from Finland and I'll concentrate below on that country, with occasional notes on comparative reception in Sweden and elsewhere as noted in my Finnish source.

Before reading further, I suggest you get out your copy of the NRC Night Pattern Book, as updated, or any other source you may have on antenna patterns. Checking what is heard and what isn't, across the pole, will be much more revealing with this graphic information at hand.

Reception of all states, provinces and territories is still possible. It is not a thing of the past. But it's getting more difficult. The reasons are easy to understand, and stem from conditions in both North America and Europe. Firstly, in North America the problem is the familiar one of overcrowding on the band, the beakup of the former clear channels, and the assignment of new, powerful stations, mainly in Canadian provinces like Alberta which are already well represented in Finland, with nighttime directional patterns toward the north. A well-known example is CFFR-660 Calgary. Related to this is the use by Canada of higher powers on regional and local (graveyard) channels than U.S. stations are allowed to use. However, propagation conditions in the circumpolar zone are so widely variable from day to day, hour to hour, minute to minute, that a generally dominant station can at times be replaced by another, from a greater distance or with lesser power, so no channel is always dominated by one station.

In Europe the problem is again overcrowding of the band. Luckily, AM radio in Sweden and Finland is not in a period of expansion, quite unlike North America. If anything, it is tending to contract and some stations have been closed and replaced with FM. However, nearby countries, especially the USSR, continue to expand. But the big days of expansion in Soviet AM broadcasting appear to be over. They led to a mushrooming of powerful stations in the areas closest to Finland, such as the three Baltic republics (where the best Soviet DXers, encouraged and organized by Finnish DX friends, are) and Leningrad. DXpeditions in Lapland can, however, place daylight between themselves and these more southerly stations, at critical DX hours, so the problem is not insuperable..

My source is an amazing handbook of reprinted articles from the leading Finnish DX magazine, DX-Kuunteliija ("The DX Listener"). Bibliographical details follow:

Esa Hänninen (ed.), Jankkikuunteleu ("The Yankee Listener"). N.p. (Helsinki?): Suomen DX-Liito, 1984. (suomen DX-Liiton Eripainoskokoelma,2). 80 pp., paper, illus., maps. Price not stated.

The book is entirely in Finnish, with no summary in English or Swedish. It includes reprintings of DX-K articles between 1967 and 1984, with additional material including a polar-projection map, cartoons, and index, and a bibliography. There are feature articles on DXpeditions, verifications, the minor countries of North America (like St. Pierre et Miquelon), and Hawaiian DX, and even on North American DX on Graveyard channels and on a favorite regional frequency, 1380 kHz.

But my source here is one particular reprint, written by editor Esa Hänninen himself, and originally published back in November-December 1978. The title

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All inductors are standard values of moulded miniature inductors available from Mouser Electronics (Santee, CA) and other vendors.

By the above table, it can be seen that a "MWDX-4D" phasing unit could be expected to operate from 1.5 to 18 MHz, thereby being of use on ham bands from 160 through 30 metres, tropical bands from 120 through 60 metres, and international broadcast bands from 49 through 31 metres.

The next section of this article concerns operating the MWDX-4 and Mini-MWDX-4 series of phasing units. Parts lists and hole-drilling tables may be found after the operating section. Information regarding the construction of the phasers is an appendix to this article.

(To Be Continued)

BOOK REVIEW

Kuultavissa olevat jenkit [North American Stations Audible in the Nordic Countries] Esa Hanninen, chief compiler. 24 pp., paper. 8th edition, 1985. Publisher not indicated, but presumably obtainable from Suomen DX-Liitto ry, PL 454, Helsinki SF-00101 Finland.

Reviewed by Richard E. Wood

From which spot on earth can all 50 U.S. states, the District of Columbia, all ten Canadian provinces and both Canadian territories still be heard on medium wave? Not from New Zealand. Not from Hawaii. From Alaska? It seems unlikely, and no Alaskan DXer has done it. From the Yukon? The fine DXer there has not achieved it.

The answer, of course, is from Lapland, the regions of the Nordic countries--Norway, Sweden and Finland located within the Arctic Circle. Documentation is provided in this booklet--modest in form but staggering in content, written in Finnish but using the familiar English-language names of U.S. states and Canadian provinces and territories. In Finnish slang usage, all North Americans are "jenkit", "Yankees," a term which, in English, of course does not apply to Canadians and is of dubious application to U.S. Southerners. So, we have given a more explanatory translation of the title.

Basically the book is in two parts--a listing by frequency, in three columns:

Regularly audible Frequently audible Rarely audible

with the call letters of the station, and the location. (Many Alaskan stations heard are listed simply as AFRN, and in some cases, their precise location cannot be identified, where several low-powered relays are on one frequency.)

The second part consists of two listings by state, province and territory, with stations heard arranged in frequency order. An additional listing is given on the back page for Hawaiians, in two columns rather than three--no Hawaiian is "regular" in Finland, but some are more often reported than others.

Let's look at the statistics. All political divisions of North America are heard via at least two stations. The two divisions which provide this bare minimum of two stations are:

PEI: 630 CFCY Yukon: 570 CFJH
1190 CHTN 610 CKRW

All U.S. states and the District of Columbia are heard via at least three stations. Here are these rosters:

DE: 1150 WDEL RI: 790 WEAN
1380 WRMS 1290 WPRC
1500 WKEN 1590 WARV

Four stations per state:

AL: 660 WMOD KY: 680 WCTT VT: 620 WVMT
1280 WNPT 840 WHAS 1230 WJCY
1410 WMML 970 WAVG 1360 WSYB
1600 WEUP 1420 WVJS 1390 WDOT

Turning to the opposite end of the count of stations per political unit, #1 in station ranking (number of stations heard) in North America is...surprise!... Ontario, with the magnificent total of 80 stations heard. Next comes...double surprise...California, with 71 stations heard. How many Californian DXers have yet to hear a single European, let alone one of the Nordic countries? Less surprisingly, #2 in Canada is Quebec with 67, and #2 from the U.S. is Washington State, with 62. Then follow Alaska with the immense total of 55 stations logged, including two AFRNs on 890 and ten other AFRNs.

Surprises go on and on throughout the list. Washington State is followed by... Florida with 51 stations logged. To receive Florida, listeners in all parts of Finland are equally favored, with no obvious advantage to listeners in Lapland.

Thus, the figure for Florida was doubtless swollen by southern Finnish and Swedish DXers for whom the band is open to Florida without interfering or dominant stations from the north and west of North America. Also, stations from Florida and the rest of the South are heard in late spring, summer and early fall when the rest of North America may not be favored; and during auroral conditions of certain types.

Castino a general eye over the statistics, a few random observations. The area around Arkansas, Oklahoma and New Mexico is fairly poorly represented, but moving west from there, Arizona is well up to average. Wyoming is surprisingly weakly represented, probably because of lack of stations there. The states of Indiana, Ohio and Pennsylvania, which do not seem to be advantageously located for QRM-free reception in Lapland, are nevertheless quite well covered--e.g. 21 stations reported from Indiana. Clearly, conditions vary constantly and every area of North America is in reception focus at one time or another, without troublesome co-channel QRM.

Turning back now to the main body of the book, the by-frequency listing shows a minimum of two North American stations heard on every 10 kHz channel. Let's look at the specifics on those channels where only two, three or four stations have been heard, and consider them by regularity of reception:

Regularly audible Frequently audible Rarely audible

720 KOTZ Kotzebue, AK
WGN Chicago, IL

To emphasize the obvious point, KQWN Las Vegas, NV has not been heard in the Nordic countries and is the most pointedly missing clear-channel 50 kW station in the book. Check its night radiation pattern in the supplement to the NRC Night Pattern Book. Continuing with channels where only two North Americans [Hawaii excluded] are heard:

760 WJR Detroit, MI KFMB San Diego, CA
1040 WHO Des Moines, IA KSOG San Diego, CA

1120 KMOX St. Louis, MO
KPNW Eugene, OR

Three North Americans heard:

690 CSU Vancouver, BC CBF Montreal, PQ
CBKf1 Gravelbourg, SA

Thus, no U.S. station (outside Hawaii) has been heard on 690.

840 WHAS Louisville, KY KSOP Sand Point, AK
KSWB Seaside, OR

1100 WWWE Cleveland, OH KIIC Grand Junction, CO
KFAX San Francisco, CA

Four North Americans heard:

650 KYAK Anchorage, AK CISL Richmond, BC
WSM Nashville, TN CKOM Saskatoon, SA

670 KDLG Oillingham, AK
CHYQ Musgravetown, NF
KBOI Boise, ID
WMAQ Chicago, IL

What a fine selection of four regulars in a nice geographic spread across the continent!

830 KABN Big Lake, AK WNYC New York, NY
WCCO Minneapolis, MN WTIW Hialeah, FL

Again, how many DXers inside North America are lucky enough to have heard four U.S. stations on 830!

990 CBW Winnipeg, MB CBY Corner Brook, NB WHOG Orlando, FL
WNDX Knoxville, TN

1160 KSL Salt Lake City, UT WJJD Chicago, IL CBQR Rankin Inlet, NWT
WFEN Fenton, MI

1530 KFBK Sacramento, CA CISW Winkler, MB KGBT Harlingen, TX
WCKY Cincinnati, OH

Turning to the other extreme, the largest numbers of stations are logged, as we might expect, on the graveyards, and, also predictably, most of all on the higher-frequency graveyards, those in the 1400 to 1490 kHz range. It is the most "graveyardish" of all the graveyards, 1490, which provides the breathtaking sum total of 43 North American stations identified, all the way from California to Maine and from Alaska to Florida. Then follow 140C with 39 and 1450 with 35

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reads, in translation, "How to Hear All U.S. States". Naturally, some factors have changed since 1978. In particular, as mentioned, new stations have come on the air, there have been power increases and other changes, and, less important, some call letters have changed. But I suspect that this material is still largely valid. Otherwise, Hanninen would not have reprinted it unchanged in 1984. He added an update at the end.

Alabama. One of the more difficult states to hear in Finland, and one where a northerly location in Lapland offers no advantage. Hannu Niileksale in Hyryla was the first in Finland to log an Alabamian, WNPT Tuscaloosa 1280, in 1971. The article is illustrated with a copy of the verie letter. The Swede John Ekwall heard WEUP-1600. WMML-1410 Mobile is also reported, and I might add that it is the best chance for Alabama reception in England and western Europe, generally.

Arizona. Three stations have been heard in Northern Finland, KLFF Glendale, 1360, KRDS-1190, and KNIX-1580. A daytimer on 1550 has been heard in Sweden, also KVVV-860. Other stations mentioned are KTAR-620, KUKQ-1060, and KTAN-1420.

Arkansas. KAAY-1090 is often heard in Lapland and elsewhere in northern Finland. KWHN-1320 has been heard three times. KLRA-1010, the article points out, does not have a favorable nighttime pattern for Finland, but has been heard.

California. Best in the north of Finland is KFBK-1530, followed by KKHI-1550 with its symphony music. A total of 32 Californians have been heard in the Nordic countries, including 20 in Finland.

Colorado. Colorado is one of the leading states in Lapland, notably KOA-850, KBRQ-1280, and KRYX-1600. A total of 15 Coloradans have been heard.

Connecticut. As might be expected, WTIC-1080 and WPOP-1410 are listed first, but the article also mentions WICH-1310 which is rare even in England, a country where east coast stations are usually dominant, with reception from further inland quite rare.

Delaware. WAMS-1380 has been heard, also WDEL-1150 and rarely WKEN-1600. This is the most difficult Atlantic Seaboard state to hear in Elgnald, with WDEL also the best chance there.

District of Columbia. Naturally, WTOF is listed first, on 1500. WMAL-630 has also occasionally been heard in Finland.

Florida. Three or four Florida stations have been heard in southern Finland, which means fewer than are heard in England. VOA-1180 (now R. Marti.bp) is mentioned first, then WINZ-940. About 12 stations have been heard in northern Finland, including WDAE-1250, WWOK-1260, WPED-1460, and WOKB-1600. Though British DXers have not reported good U.S. results in recent seasons, it strikes me that they ought to make some Florida catches in summer which might be difficult or impossible in Finland due to daylight there.

Georgia. Like British DXers, Finnish DXers looking for the Peach State via its powerhouse WSB are often troubled by CEGY Nfld on 750. So, other catches are WKBX-630, WCAF-910, WGST-920, WMAZ-940, WWSA-1290, WRCG-1420, and WGIG-1440. As a long-time member of the British Medium Wave Circle I can only gape in admiration at the Finnish achievement in hearing several of these stations from this deep south state, to which Finland enjoys no particular geographical advantage. They have never been reported in the British MW News though I remember verifying WTOF in my first British DXing days.

Idaho. Six Idahoans have been heard in Finland. First, of course, is KBQI-670, then KSEI-930, KTLC-1270, and KIDO-630. The last named, KIDO, certainly has an interesting night pattern, dominating 630 in Hawaii also. Now our first listing of a graveyarder, KART-1400 has been heard "many times". Amazing!

Illinois. 16 have been heard, among them WBBM-780, WCFL-1000, and WVON when it was on 1390. The 1390, still heard, is now WGCI.

Indiana. The total is seven, including WOWO-1190 and WQHK-1380.

Iowa. One of the leading states heard in Finland, Iowa shows 17 loggings at the time the article went to press. Those listed include WHO-1040, KSO-1460, KWSL-1470, and KXEL-1540.

Kansas. KSAL-1150 is often noted in Lapland, also KVGB-1590.

Kentucky. Not a state with many different loggings, the Bluegrass state offers mainly WHAS-840, WCTT-650, and WAVG-970.

Louisiana. Finnish DXers don't seem to do as well with Louisiana as they do with neighboring Mississippi or nearby Alabama. Only WWL-870 is listed.

Maine. Nine stations have been heard (I heard more from the only state with a monosyllable name when I was DXing from England, but that was years ago when the bands were less crowded and fewer Canadian mari timers were on). The best in Finland (and everywhere in Europe) is WEGP-1390, followed by WDEA-1370 and WLAM-1470. WLOB, named for the lobster, is on 1310 and separable from WFGM there. Also WYNZ-970.

Maryland. The same two as in England, WBAL-1090 and WFBR-1300. However, for Finns, KING is dominant on 1090, whereas it is very rare in England.

Massachusetts. This is one state where listeners in southern Finland have an advantage, or at least are at no disadvantage. Eleven stations had been heard when Haaninen wrote his report, the top ones being WHDH-550, WBZ-1030, WEZE-1260, and the 1510 outlet which at that time was WMEX, then WITS, then WMRE....

Michigan. 17 stations are voices of the Wolverine state in Finland. The best are WJR-760, WLTV-1500, and WPHM-1380.

Minnesota. From a state where many Finns settled and where one or two stations still broadcast in Finnish, 20 stations have been heard. WCCO-830 is tops, followed by WDGY-1130, WWTC-1280, and KSTP-1500. Some make it to southern Finland, whereas Minnesota loggings are rare in Elgnald and south and west Europe. Other loggings are KLI2-1380 and KRRK-1590.

Mississippi. Hanninen notes that reception from Mississippi was better in the 1960s, and that agrees with my memory of hearing WOKJ-1550 in Newcastle upon Tyne, England, about 1960 -- I remember it was a spring reception, around late April, and a great surprise as nothing had been heard from Mississippi in England in the memory of living DXers. Interestingly, possibly because of QRM from CBE, Hanninen does not list WOKJ as heard in Finland. He mentions WHNY-1250, WALT-910, WKXI-1300, and WQBC-1420. I would call all of them admirable, indeed stupendous catches at such a distance and on such QRM-prone frequencies, and I wonder how many Mississippi DXers have heard Finland or other North European MW stations. And how about this graveyarder: WCID-1240?

Missouri. The Show-me state provides seven loggings, headed by KMOX-1120, WIL-1430, and KWK-1380.

Montana. Hanninen notes a growth of broadcasting in Montana in the 1970s, with new stations coming on the air for Finns to hear. KOFI-1180 has been heard in Kuopio, central Finland, and 13 other Montanans elsewhere in Finland, such as KGCX-1480.

Nebraska. This Great Plains state is rich in stations audible in Finland. The best are KFAB-1110 and KOIL-1290, also WOW-590, KRVN-880, KRGI-1430, and KLMS-1480.

Nevada. Reception from the state of desert and mountains is limited to Lapland. Up there, KROW-780 is most frequent, followed by KENO-1460, and three times there has been a record breaking reception of a graveyarder whose 250 watts get out like gangbusters, KONE-1450. Only a few graveyarders are specifically listed by Hanninen, but many others have been and still are heard. As he tends to concentrate on the best bets for each state, he usually doesn't mention graveyarders. Other Nevadans heard are KVEG-1410, KRQI-1270, KRAM-1340, and KWNA-1400, so three graveyarders from one distant state!

New Hampshire. A state which many DXers in the western and even central U.S. would like to hear is a cinch in Finland (and in England). WFEA, the best bet in most parts of the U.S., on 1370, is also best in Europe. Hanninen warns DXers not to confuse it with similar sounding WDEA in a similar state, Maine. Others from the "Live Free or Die" state include WKBR-1250, WTSN-1270, WKNE-1290, WBBX-1380, and WSMN-1590, and WWH-930.

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New Jersey. Here the graveyarders come into their own. Four of the five stations listed by Hanninen are the mighty midgets on the NJ coast which are also heard in England. WMID-1340, which Hanninen specifically mentions as being heard in many parts of Europe, especially Sweden, WOND-1400, WIIN-1450, and WKSS-1490. But before this quartet he realistically lists WNJR-1430.

New Mexico. Another state whose reception is limited to Lapland. Best is KOB-770, then KBCQ-1020, and KRKE-610.

New York. The Empire State falls just one notch behind California in Hanninen's statistics. When he went to press, 31 New Yorkers had been heard in Finland. You can guess who the leaders are: WABC-770, WCBS-880, WINS-1010, WHN-1050, WNEW-1130, WHAM-1180, WWCN-1460, and WQXR-1560. I might add an update on WINS. 1010 is a horrendous frequency when East Coast conditions are good in Europe, with a three way fight between WINS, CFRB, and CFYQ.

North Carolina. He mentions just two. WBT-1110 and WTOB-1380. Considering Finnish DXers' results from Georgia and S.C., there must be many other possibilities. Spring and Fall are the best times for the coastal south.

North Dakota. Hanninen mentions only 9 stations as having been heard from ND, but remember, his article was originally written in 1978, and there has been a lot of expansion in ND broadcasting since then, with many new stations mostly beaming north. And the very first station Esa lists is a graveyarder, KNDC Hettinger, 1490 with 250 watts. Also KNOX-1310, KEYZ-1360, KSJB-600, KFGO-790, and KLTC-1460.

Ohio. Though it is pretty far to the east, Ohio is clearly better in Finland than in the United Kingdom, with 21 loggings, headed by WWWE-1100, WGAR-1220, WERE-1300, and WCKY-1530.

Oklahoma. KOMA-1520 makes it almost everywhere in the world, and it heads Esa's list from Finland too, followed by WKY-930, KVOO-1170, and KELI-1430.

Oregon. To receive even one Oregonian is every British DXer's dream. But the Finns have heard 17. KEX-1190, which has been heard in England, is first; then comes KPNW-1120, and KYXI (now KSGO) 1520, and KSLM-1390.

Pennsylvania. The Quaker state has provided 17 stations in Finland, probably about the same as a keen DXer in England could hear. KDKA-1020 and WCAU-1210 are best. I might add that WCAU was the first North American station I logged when I started DXing in Newcastle, northeast England.

Rhode Island. Another state where it pays to be in Finland rather than in the western or southern U.S. is Rhode Island. Best is WEAN-790, then WPRC-1290, which has also been heard in Sweden.

South Carolina. Again, the results from this southern state are incredible. The list goes on and on -- WCSC-1390, WFBC-1330, WIS-560, WTMA-1250, WDIC-1320, WBCU-1460, WBSC-1550.

South Dakota. Hanninen mentions KOTA-1380, KKAA-1560, WNAX-570, and KSOO-1140.

Tennessee. The Finns know Tennessee as the home of country music and so, of course, they know WSM-650, also WLAC-1510. Others heard are WFLI-1070 and WENO-1430.

Texas. They report 8 Texans heard, headed by WBAP-820 and WOAI-1200. The latter, incidentally, was my fourth U.S. station heard when I began DXing in England.

Utah. KSL-1160, another I heard from England, leads the pack. KBJG-1320 has been heard even in southern Finland. Five others have been heard in Lapland, such as KBLQ-1390, KLO-1430, KRGO-1550, and KMTI-1590.

Vermont. Highly sought after in other parts of the U.S., the Green Mountain state is not easy in Europe either. It was my closest unheard state in my British DXing days. The reports from Finland say WVMT-620 and WSYB-1300 are the best chances up there.

Virginia. Compared with S.C. and Miss., the results are not outstanding. Only four stations have been heard, led by WRVA-1140. WNIS-1350 was once logged in Sweden.

Washington. Though statistics are not given for every state, Washington appears to fall in #3 position after California and New York, with 27 stations heard by Hanninen's cut-off of 1978. Tops are KOMO-1000 and KING-1090, followed by KGA-1510 and KVAN-1550.

West Virginia. The two stations listed are a giant and a midget; WWVA-1170 and the graveyarder WHAR-1340. A logging like this shows that, more or less every U.S. AM station is a potential catch in Finland, especially since day-timers are also heard there.

Wisconsin. By 1978, 11 Wisconsinites had been heard, led by WISN-1130, WEMP-1250 (which I also verified in England), and WGEE-1360. Esa's updating in 1984 adds two new catches: WIBA-1310 and WISM-1480.

Wyoming. Six stations heard, led by KTWO-1030.

Alaska and Hawaii are omitted from the above list of states, as they are covered in separate listings.

Alaska. Finland is, of course, uniquely located for superb reception across the Pole from Alaska, and many Alaskans can be heard at hours of the day when nothing is noted from the lower 48. Many graveyarders and low powered AFAN outlets have been heard and verified. By 1978, 18 Alaskans had been heard in Finland, with two additional ones then heard in Sweden. KJNP-1170 is listed first, then KBRW-680, KYAK-650, and KPQD-750. In his 1984 update, Hanninen mentions new catches KIAK-970 and KGHX-1300.

Hawaii. A separate article, also by Esa Hanninen, now in Espoo on the south coast of Finland, the worst possible DX location in the country, is devoted to the 50th state, with impressive illustrations including a KHLO verie letter. A DXpedition to Lapland made the first logging in 1974, the station which is now KDEO-940, followed by KNDI-1270, not a Hawaiian familiar to most U.S. mainland DXers. Later receptions were from KPOI when it was on 1380, KHVH when it was on 1040 (now 990, also heard), and KNUI (1310, now 900). Then KLEI-1130 was heard, and is one of the best, thanks in part to its northeasterly coastal location. KUUU-1500 has been heard when CKAY Duncan, BC is not dominant. A new catch in 1983 was KHEI-1110. Also heard are KKUA-690, KGU-760, KIKI-830, KHLO-850, KAIM-870, tentatively KPUA-970 (now 670), KIPO-1350, KCCN-1420, and KISA-1540.

The article also lists catches from all Canadian provinces except for Prince Edward Island, a probable oversight as it has certainly been heard in Finland, and from the two Canadian territories (which surely have also been heard in Scandinavia. bp) As the Canadian AM scene is changing more rapidly, if anything, than the US one, it will take more study and updating, but in a future issue I hope to bring you a similar feature on the top Canadian AM stations in Finland. Stay tuned, and let's close by expressing our admiration for the persistence and knowledgeability of Finnish DXers when they shoot for North American targets. As I know from visiting with them and conducting an impromptu "North American DX Quiz" at a Finnish DX camp, they have an insider's knowledge of North American broadcasting and DX, not an outsider's.

(Typist's note: this article was written several months before the book review on North American stations heard in Nordic Countries, which appeared in the November DXM. Consequently, there are a few discrepancies between the two articles. Also, it should be noted that the earlier article was based on more recent information. Overall, the two features present a very interesting picture of DX reception in that part of the world. bp.)

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