

# DXing From Jan Mayen: 1981-82 by Geir Stokkeland

Jan Mayen is an Arctic island, located around 71°N 08°30'W. The Dutch Captain Jan Jacobsz May, on board "De Goude Cath", has been awarded the discovery of the island, in 1614. At the time, when the Dutch caught Greenland whale in these waters, they called it Mauritijs Eiland. Other names given by different seafarers who have claimed discovery, are Sir Thomas Smith's Island, Trinity Island, Isle de Richelieu and "het Eylant in Cuestie". Norway erected a weather and radio station on the Northeast coast in 1922, then destroyed by war actions in 1940, Norwegian and US forces moved into the valleys of the centre of the island, and kept it the only free part of Norwegian territory through World War II. After the war, the installations were moved to the Northwest coast. In 1959, Norwegian and US authorities erected a Loran-A (later Loran-C) navigational system on the Southeast coast, and built an airfield. In 1963 the meteorological station also moved over to this area.

Jan Mayen definitely has one of the world's worst climates. Mean temperature of the year is around zero Celsius, with last season's recorded high +9°C (in August), low -19°C (February). During winter intense storms are frequent, with winds at times peaking past 70 knots (i.e. hurricane). Drifting snow is a problem most of the winter. But from time to time periods of excellent weather could also occur. The dark season lasts from late November until early February, with only two hours (approximately 10-12 UTC) of daybreak daylight available.

Jan Mayen's soil is volcanic, with the 2277 metres high Beerenberg volcano - one of the world's most beautiful and picturesque volcano bowls - dominating, and last erupting in September 1970, covered by glaciers stretching from the top into the Atlantic. Beerenberg occupies the northern part of the island, while the southern is covered by lowland and hills. Jan Mayen is 372.5 sq. km. big, stretching 53.7 km. NE-SW, and with width varying 3-15 km. The sea off the coast is down to 3,000 metres deep, and very rough; during winter many times covered by drifting sea ice - and in spring a multitude of smaller icebergs may be found stranded on the beaches. The beaches, with lovely dark black sand interspersed with olivin crystals - and lots of old driftwood - would be another Hawaii if the climate was warmer. A mention also to birds - one of the richest reservoirs of this wildlife in the world.

The practical side of DXing on Jan Mayen is far more difficult than any other place I know of. There are two main obstacles - the weather, and commercial radio interference/splash. There are many local "utility" transmitters - the "worst" (in our sense of the word) being the Loran-C system, with 250 kt on 100 kHz longwave, acting like our local woodpecker (about the same audible result) all across the HF band. The Loran facility also has a 1 kt HF xmttr for link purposes with other Loran chain stations, causing some HF splash.

Our two LF beacons, the Consol system on 332.5 kHz (LFC) and air beacon on 362 kHz (JAN) - both powered at 1 kt - also are troublesome. LFC and JAN spread their harmonics, upwards including the 4th, making it impossible to hear anything on or near these frequencies during transmission periods.

The third transmitter system is that of Jan Mayen Radio/LMJ - the coastal and meteorological radio station, where I worked myself. The main MF frequencies - 394.7/435/500 kHz (CW) and 1722 (not 2182) kHz - caused some splash all across band, not harmonics only. A 1.5 kt HF xmttr for telephone/telegram link with Norway from LMJ was the source of some HF splash.

To become the subject of QRN from all or some of these sources, you need to be located not too far out. Within a range of say 20 km. from each utility xmttr QRN is heavy, and heavier the closer you get. Being 3 km. from the 200 metres high Loran-C xmttr tower, and only 500 metres away from the 50 metres high twin xmttr towers of LMJ, was a difficult location. Lost below 100 kHz, near "normal" above 1500 kHz - where only LMJ's 1722 kHz splashed (luckily only when they were on for traffic exchange, usually up to 30 min. or so per day in total).

The QTH I think of now is my "base" at Helenesanden, on the east coast of Jan Mayen. 100 metres from LMJ, I had to get transport or get out there another way (from our housing facilities on Trollsetta, 3

km. further south along the southeast coast) every time I wanted to go DX. The housing facilities were too close to the Loran-C facility and provided less antenna space than needed for a beverage. So I had all my HAM (JXSVAA) and AM DX gear in a tiny cabin (2x4 mtrs.) near LMJ. When winds gusted well into the hurricane range during the worst winter storms, I just took off headsets - was impossible to hear anything anyway. No ventilation or isolation - had to use a 2,4 kW fan oven for heating, and trust ventilation was OK with a few holes in the wall.

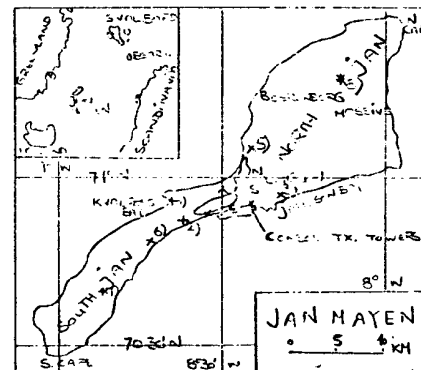
I had a total length of 800 metres wire directed 270° into the hills of central Jan. Towards the end of the aerial I had to ascend a very steep mountainside to get to the point where I fastened the end of it - thus the terrain for big-space antennas was fairly difficult.

One more QTH was tried with succes, that of the "Puppebu" cabin in Kvalrossbukta on the west coast, with a 5 kW superb power supply and a great cabin in a bay surrounded by mountain cliffs on three sides - the ocean to the SW being the 4th - DX there was good. The only problem was how to get there - high winds, drifting snow, and much of it also on the ground brought around the ability to think.

Kvalross was a bit more remote, and shielded for utility QRN - though still partly troubled. The big difference from the east coast was radio propagation. I got the first taste of this on my first combined NAF and AM expedition to Kvalross September 5-7. First of all, I recorded all GRF (Greenland) outlets heard all season - 570, 650, 700, 750 and 1100, 1100 like a neighbour local. Next, lots of EC (i.e. East Coast) North America; 770 VADZ, 850 WJON, 890 WCRS, 920 CJCH, 960 CHNS, 1050 WJW, 1270 CKCU and 1350 CFYQ - all these never heard on Jan Mayen's eastern side. Stations further west heard exclusively on this trip, and not again all season, were 900 CJJR, 1100 WJWE, 1310 CKOY, 1430 KEZU, 1500 WTOP, 1510 LLAC, 1520 KQBA, 1540 WPTB and 1590 WAKR. Last, stations heard in Kvalross which were as likely - and heard again - at Helenesanden: 1000 CFLP, 1120 KIOX, 1130 WJXI, 1130 WJSN, 1190 WJVO, 1220 WGAR, 1320 CFGM, 1370 CJWV, 1420 CJVR, 1440 CFRO, 1460 K50, 1500 WLFV, 1520 WKRW, 1540 KXEL and 1570 CKLC. Remaining, 1030 WJZ made it once only to the east coast while a regular in Kvalross - and also 1570 CKLW likewise.

Helenesanden provided no North American DX until the first day of November. From Europe stations of interest before this, were 854 Devon Air Radio, Torbay, 1035 North Sound, Aberdeen, 1134 ARD Radio, Dublin, 1170 Radio Victory, Portsmouth, 1170 Swansea Sound, 1314 Sonic Indep. Radio, Dublin and 1359 Cardiff Bc. 1313 in // with 1305 provided Coynside Radio, Drogheda, with xmt signals during July/August. 1332 Harvard Radio, Peterborough became a semi-local in strength, and Vatican Radio's outlet on 1611 (xmttr located inside the Vatican City State) was first noted Sep 30th. 1220 Radio Globo became the first TA noted on July 15th; Radio Atlantico, Las Palmas the first African August 5th, and 1341 Radio Kuwait brought xmt western style music way over BFC Ulster a few evenings during Sep/Oct.

An unseccusful trip to Kvalrossbukta Oct 21-22 started off the dark season DX. 930 CJYC with a short fade-up early on the 22nd was the only AM station all across the band that morning (I suppose many would find that a surprise, but it is true). Then, the first TA peak from Helenesanden came on Nov 1st. 1170 KJJP became my first Alaskan, at 0314 UTC.



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- 7) One of two German warplanes crashing during last world war
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From Canada, 1260 CFRN in Edmonton was mid-day DX at 1156 (all times mentioned are UTC), and 1430 AFRS Thule, Greenland, I'ded "Your source for information and entertainment - American Forces Radio Thule" at 0900. Additionally, 1570 CKLQ made it on Nov 2nd. CKLQ still means something special to me, as it was the first North American I heard, in Kvalross on Sep 5th. The xint off-air recording of CKLQ here is probably the best quality one I have from this season.

From Europe this period, I note the newly on-air 1035 kest Sound, Ayr, and 1431 Essex Radio, Southend. 1458 had a surprise for me Nov 2nd, as BBC Radio Carlisle, Whitehaven site, I'ded. I should believe London was way out. Later 1458 became a very fine frequency providing all BBC locals here except for Birmingham - weird or not. Mention also goes to 1323 Royneside Radio, now split from its break-out branch on 1305 Community Radio Drogheda - the latter first heard Nov 3rd.

Mid-November provided no news from North America, except a brief layer showing off 1430 Thule on the 10th. From Europe 846 Radio Nova, Dublin, made it on the 4th, while the new 990 BBC Radio Aberdeen was first in on the 13th.

Towards Nov 20th things got better. 1359 Ferda Sound, Coventry, was of interest on the 17th, and on the 18th 1430 AFRS Thule was there again - stronger than ever. Under Thule was CJXX Grande Prairie AB, and 1170 brought KJNP - what was to follow? The 19th had a terrible snowstorm, impossible to get out to DX - but on the 20th 680 KBRW Barrow AK was in. Programmes including live basketball from Barrow High School provided me with the closest to real community radio I heard this season - right across the North Pole basin.

The Nov 21 - 22 peak also had DX such as 660 KFRW, 750 KFID, 1090 KQBC, 1050 WJSP, 1060 CKSA, and KANC, 1090 KING, 1160 KSL, 1330 CKKP, 1280 KRCO (remembered as the station I only heard once - but not managed to record), 1460 KLTC, 1470 KLSL, 1550 KVAN and 1560 KKAQ. 1530 KFAK was in, as were 1140 CKXL and 1240 CFRN. All these three last ones were to be condition indicators throughout the season. I will return to this later. In addition to the above, many more "common" North American stations were logged this period.

The next isolated NA (North American) peak was Nov 30th, but while the previous was centered on the west coast/NW prairie/Alaska, this day brought main spot conditions to the Lakes, with 1130 WGGY, 1180 WMAF, 1190 WQWO and 1300 WERE indicators. 680 KBRW Barrow AK, 1120 KMRX, 1140 CKXL, and 1410 CFUN were there to spread it all.

Dec 4th had a short peak to west coast/NW prairie, with 1130 CKIX, 1140 CKXL, 1250 CKGF, 1260 CFRN, 1410 CFUN and 1550 KVAN. The rest of December had very dull conditions, with only 1368 BBC Radio Lincolnshire being of noticeable interest from Europe. Peak peak conditions to NA recorded on December 14, 16, 19-20, and 27th. But nothing of special interest.

Celebrating Christmas and New Year in a traditional Arctic way, with 1260 Centre Radio, Leicester, in on the 27th - set everything ready for the 1982 half of the season. AM conditions in general peaked on Jan 3-4, with 531 Sunshine Radio, Dublin, pleasantly making it on the 3rd (and later also on the 6th); NA conditions peaked on the 4th - with KBRW, CFCT, CJCA, KANC, and Essex Radio's new 1359 outlet in Chelmsford heard.

Most of early and mid January 1982 continued without any major peaks in propagation. Jan 6/7-10th proved a relatively good period. From Europe, the new 1260 Radio Test in Bristol was heard Jan 7th. 846 Radio Nova, Dublin, was noted back on the air Jan 8 after its recent stormy tower collapse, and on 1305 Radio Drogheda was identified - yet another change of name. Jan 8th also brought in 600 CFCT, 720 KOTZ Kottzeue AK, 930 CKRM, 1200 LOAI and 1500 KSTP from NA.

Jan 14th had 1050 LFZ in on Jan Møyn's east side - a surprising logging taking into consideration the advantages Kvalross has for this area. Jan 16th obviously marked a change in conditions, according to my logs. 1485 NRK Longyearbyen was heard again - the second and last time of the season only. And during our local evening one of my big winter surprises occurred - at 1917 UTC I noted 680 KBRW with good signals! This is the only occasion on which I have heard AM signals from North America this time of the day. Obviously this is due to the signal path being in total darkness, and skip thus longer. The same is the case with 1430 AFRS Thule, that from now on

until late February was audible 24h a day, weaker or stronger. 500 DKY and 890 LIS, along with 1420 LDC, brought a good opening to the Lakes early in local morning, Jan 23rd. Later, towards mid-day, condx moved west with 1110 CHQT providing xint reception around 1100 UTC. On the 25th the Lakes peaked weakly, with KCXI dominating on 1130 - something they seldom did this winter.

On Jan 21st, I'd been over to Kvalross, restoring the power supply with fuel - for a future expedition. The chance soon was to occur. Checking the band on the 28th was rewarding. Beside the "normal" stations from North America (NA), 970 KIAK, 1070 CKST, 1150 KEX and CFSL (LOND not there), 1280 WUTC, 1320 CHQM, 1360 KMO, 1470 CJVB and 1570 CHUB clearly indicated something was up - so I grabbed the receiver, some food, gun and ammunition and walked the 7 necessary kilometers over the hills to Kvalross.

In Kvalross, 1485 AFRS Keflavik was a very solid daytime and early evening station, before more widespread reception set in. Openings to EC NA began past 2000 UTC, with 1490 CJFC pleasantly identifying just an hour later. Propagation dropped rapidly over the next 48 hours, but stations in - indicating typical reception condx experienced in Kvalross - were such as: 760 WGBM, 950 CKNB, 1050 CHUB, 1130 WJEW, 1170 WJVA, 1270 CJCB, 1410 CIGG, 1510 WJAC and 1560 LKX. On 1420, AFRS Søndre Strauffjord, Greenland, came through on the 28th at 1029 - first time of the season. 1100 GRF, Angmagssalik, had a noticeable signal 24h a day (the carriers of GRF are always on, for your information), and the shortwave outlet on 3999 kHz also had a good signal. Outside NA, 950 Radio Visión, Caracas, and 1055 Radio Guyana were rare catches.

From January 30th, conditions dropped to what I think was to be a record low of the 1981-82 season. During the first days of February, Polish AM transmitters reactivated, blocking several interesting Region I/III channels. On Feb 5th 828 Chiltern Radio, Sunstable, and 1834 BBC Radio Taunton (with relay from Bristol) were in as new, while the Feb 6-8th night had a weak Euro opening to indicate the end of this radio blackout, while at work at LNJ on the 11th, with receivers not able to pick out splits, I noted several NAs hitting split Europeans - thus things were improving rapidly. Giving night-time DX an isolated try the Feb 11-12th night proved interesting. NA fade-in around 0540 UTC, with a climax in propagation beginning around 0600, continuing till 1000. In were such as 1020 KOKA, 1040 LHO, 1150 CKOC, 1180 LHAM, 1190 CFSL, 1150 WYNE, 1250 CHSM, 1280 CJSL, 1380 CKLC, 1390 CPOD, 1420 KTOE, 1500 WJGV, and 1600 KCRG. This shows condx were based fairly east. And of special interest this morning of Feb 12th, was 1400 kHz - releasing both WCIN Cincinnati OH and KAUS Austin TX. Both are rare catches - even in the Nordic countries.

The next night, NA fade-in came around 0200, and were relatively spread until 0400 - with 1220 LGAR and 1210 WCAU in at good levels - when condx changed, and went fixed on the Canadian province of Quebec, after which nothing happened. On Feb 14th the opening was headed N.E., with 1230 CJFC being a pleasant surprise. CFUN and KJNP proved condx, though nothing else of interest got thru. From Europe, the 14th brought the first heard test from new 1107 Moray Firth Radio, Inverness.

The next few days brought fair condx to most areas. NRK's new 1214 kHz site on Kvitsøy island near Stavanger made its first test late on the 17th; while 1107 Moray Firth Radio put in good signals all day long - proving it probably has the best relative coverage of all IPA stations currently on air.

NA conditions the 17th/18th were based mostly west of the Lakes, towards the Pacific coast. Logged were such as 1080 CKSA, 1150 CKX, 1280 CFRN, 1370 CFCR, 1410 LIZN, 1420 LDC, 1430 CJXX, 1460 CKER, 1530 CISV. 1480 WLEE Richmond VA, a sharetimer, proved a surprise on the 18th, a sporadic also experienced on the 13th when 1110 uncovered LBT.

Towards the end of the month, two NA peaks occurred - the first February 27-24th. On the 22nd in were 670 WMAF, 840 WNAS, 1310 CKK most likely, 1370 CJVB and CFCR, to name a few. On the 23rd: 1220 CIGG, 1260 CFRN, 1330 CKKR, 1400 CHCA and 1570 CKYA. On the 24th 1170 KBRW was there - as well as 1340 CKRF and 1260 CJSL. That was more difficult to pick out that morning was 1400 WJLO, 1230 CJOK, and 1340 CFYK - so I am not at all sure they were there, although I do believe so.

Feb 26-28th proved to be a fair period, also, to sensations, though. 1400 DKCA Stettler AB was there again on the 26th, and 1220 DKCA made it as one of the last new ones of the season on the 28th. On the first morning of March 1420 AFRS Sondre Stramford made its 2nd and last appearance on the Jan Mayen AM band during the 1981 - 82 season.

March 5th-6th was next time around. A sporadic layer around 1100 UTC on the 5th brought 1200 CRLK and 1430 AFRS Thule in, and on the 6th 960 CFAC, 1000 CFLP, 1060 CFON, 1130 WGGY, 1140 CKXL, 1290 CRLK, 1410 CFUC and 1570 CKLF were thru.

The season drew near to a close, but still the final remained. Late March 6th 1314 BAK Kvitesee was on again all night, topping. The 14th had Thule in again on 1430, while the 16th lifted 1218 CFRN and 1420 CJLR - the two last Canadians of the season. March 20th brought on the season's last US AM station - 1518 KGA Spokane WA - and on the 25th it all ended with 1430 AFRS Thule, fading out with the "RC happy hour" program past 0600 UTC.

That's a look at AF DX season no. 1, 1981-82, on Jan Mayen. Looking back, remembering what was - I have a mixture of feelings. I could have done more, but on the other hand, local radio GKN, weather condx and work continuously regulated DX - and such things never were like that you guys are used to back home. Experience and reliable equipment - also at my disposal on Jan Mayen. Experience to observe, judge and forecast weather - and equipment that need a minimum of maintenance, as the island is one of the most isolated in the world during winter.

Another crossroad of thinking is the AF propagation experienced in general on Jan Mayen. At a longitude of 71° north daylight during winter was very sparse. Additionally, the latitude of 63.30° west meant purely local condx different from what I have experienced at home in Norway. Being around two hours behind Norway in true local time, meant that theoretically Jan Mayen should receive daylight two hours later during morning, etc. During the dark season and high Arctic summer this probably is affected by the effect on radio propagation this theory has. However, the fact is that Jan Mayen had darkness longer during morning than Scandinavia, the Americas is in darkness - and thus more time is available during which the AF DX route to this region is open; whereas propagation to Jan Mayen from e.g. the British Isles had to be regarded completely different - from Jan Mayen this was DX, while Europeans must judge these vari-locals, more or less.

Next, propagation over the North Pole area. The difference in AF reception between the west and east coast of Jan Mayen was very surprising. Remember the map distance is only 3 - three - kilometres (air route) from Kvalroshukta to Lelnesenden. I need more data to establish a good theory, but my current idea is that East Coast NA signals is received from southwest through the Denmark Strait to west coast Jan Mayen - thus the mid-island mountain range block these signals from getting further. Alaska and west coast NA signals never got out to Kvalross, so they must propagate along a different route across the Polar basin, further east. How prairie signals propagate is an open issue to me, but I do not believe that a glance at a azimuthal map centered on the North Pole or Jan Mayen itself to find the shortest path for propagation, gives a satisfying answer.

Last, 2 words on the 1981 - 82 condx variations. Svein Jakob Hallrud, located on the coast of central Norway, described "his" AM season towards North America in an article in QALC's "DX-News" this spring. The noted condition peaks he noted last winter were very often the same as on Jan Mayen. My theory thus is that our two locations provide very similar Trans-Atlantic/-Polar AM DX. Only further observations will judge.

This is written as a new DX season is getting under way. I presently have commenced my new job at Sjørnøya Radio/LJR - here on the north slope of Bear Island. My FRG-7000 and -7700 receivers are here to ensure another DX season - together with a good aerial along the cliffs.

Promised is a 1982 - 83 Sjørnøya DX round-up in one year from now. Good DX!

Sjørnøya, July 25th 1982.

Round-up of radiotelephone sections heard on Jan Mayen 1981 - 82:

NORTH AMERICA:				
570	GRF	Godthaab (Nuuk)	Sep 5	t = tentative (only when likely)
580	CKY	Linnepg MB	Jan 23	
600	CFEC	Spokane WA	Jan 8	first dates of reception included
630	CMCO	Edmonton AB	Nov 21	
650	GRF	Godhavn (Fogartarsup)	Sep 5	dates Apr - Dec: 1981
650	KFAR	Fairbanks AK	Jan 25	dates Jan - Apr: 1982
670	WMAQ	Chicago IL	Feb 22	
680	WBRW	Saraw AK	Nov 20	
700	ZPF	Sinaitaa	Sep 55	
710	t KIRO	Seattle WA	Jan 8	
720	KOTZ	Kotzebue AK	Jan 8	
740	t CBX	Edmonton AB	Jan 8	
750	ZPF	Unalak (USNac)	Sep 5	
	KFPD	Anchorage AK	Nov 21	
770	WABC	New York NY	Sep 5	
780	WPTX	Chicago IL	Jan 20	
790	CFDW	Camrose AB	Nov 20	
840	WNAS	Louisville KY	Feb 22	
850	WMOH	Boston MA	Sep 5	
860	t CNAK	Inuvik NWT	Jan 28	
880	WCSS	New York NY	Sep 5	
890	WLS	Chicago IL	Jan 23	
900	CJDR	Rivouski PQ	Sep 11	
920	CJCH	Halifax NS	Jan 30	
930	CJCA	Edmonton AB	Nov 20	
	CJYC	St. John's NF	Oct 22	
	t KTKK	Ketchikan AK	Jan 4	
940	t C3X	Yorkton SA	Nov 20	
950	C1B	Camptellion NB	Jan 28	
960	CFAC	Calgary AB	Nov 18	underlines stations were heard during 4 or more months of the season - "regulars"
	CFNS	Halifax NS	Sep 5	
970	K1AK	Fairbanks AK	Jan 28	
980	CFRN	Regina SA	Jan 8	
1000	CFLP	Rivouski PQ	Sep 11	
	KONO	Seattle WA	Nov 21	
1010	t CBR	Calgary AB	Jan 8	
	CFEB	Toronto ON	Jan 19	
1020	KOKA	Pittsburgh PA	Feb 12	
1030	WBZ	Boston MA	Sep 6	
1040	WMO	Des Moines IA	Nov 21	
1050	CFAP	Grande Prairie AB	Nov 20	
	CFUR	Toronto ON	Jan 29	
	WNN	New York NY	Sep 5	
1060	CFBN	Calgary AB	Nov 21	
1070	WST	St. Albert AB	Jan 28	
1080	CFKA	Ilroy Inuvik AB	Nov 20	
1090	K1FG	Seattle WA	Nov 21	
1100	GRF	Angasassalik	Sep 5	
	WNEE	Cleveland OH	Sep 5	
1110	CHT	Edmonton AB	Nov 20	
	t WBT	Charlotte NC	Feb 13	
1120	WEDX	St. Louis MO	Sep 6	
1130	CKX	Vancouver BC	Nov 4	
	WCYI	Detroit MI	Sep 5	
	WDV	Minneapolis MN	Nov 21	
	WTS	Wilmington DE	Sep 5	
	WPM	New York NY	Jan 25	
1140	t CEI	Sydney NS	Sep 5	
	CKEL	Calgary AB	Nov 20	
	WSDO	Siooux Falls SD	Dec 1	
1150	CMC	Hamilton ON	Jan 4	
	CKX	Brandon MB	Jan 10	
	WVPE	Kimberley WI	Feb 12	
1160	KSL	Salt Lake City UT	Nov 20	
1170	KJHP	North Pole AK	Nov 1	
	WVA	Asheville NC	Jan 29	
1180	WHP	Rochester NY	Nov 30	
1190	CFSL	Layburn SA	Feb 12	
	KCX	Portland OR	Jan 29	
	WQND	Fort Wayne IN	Sep 6	

1200	WQAI San Antonio TX	Jan 8
1210	WCAU Philadelphia PA	Feb 13
1220	CJOC Letbridge AB	Feb 23
	CKCK Moncton NB	Sep 10
	CKCA Victoria BC	Dec 28
	CFAR Cleveland OH	Sep 6
1230	CHFC Church Hill NB	Feb 14
t	CJCK Fort McMurray AB	Feb 24
1250	CHSC Strainsburg MB	Dec 5
	CKCM Saskatoon SA	Dec 4
1250	CFRN Edmonton AB	Nov 1
1270	CJCE Sydney NS	Jan 30
1260	CHRB High River AB	Feb 23
	CJSL Estevan SA	Feb 12
t	CKCV Fuchs BC	Jan 23
	WTC Minneapolis MN	Jan 21
1280	CFPU London ON	Nov 29
	CFAL Estevan MB	Jan 20
1300	CJNE Regina SA	Nov 20
	CFRE Cleveland OH	Nov 30
1310	t CKCK St. Paul AB	Nov 21
	CKCY Ottawa ON	Sep 6
1320	CFGM Richmond Hill ON	Sep 6
	CHCM Vancouver BC	Jan 28
1330	CKKR Roseton SA	Nov 21
1340	CKGR Brooks AB	Feb 24
t	CFYK Yellowknife NWT	Feb 24
1350	CFYQ Gander NF	Sep 6
1360	KFQ Tacoma WA	Jan 28
	WGEE Green Bay WI	Jan 23
1370	CFCK Westlock AB	Feb 18
	CJLW Saskatoon SA	Sep 5
1375	t FR-3 St. Pierre & Miquelon	Jan 29
1380	CFLE Kingston ON	Feb 12
	WVLC Everett WA	Nov 21
1390	CHSD Ajax ON	Feb 12
1400	CFLO Burns Lake BC	Feb 24
	WROA Stettler AB	Feb 23
1410	CFUN Vancouver BC	Nov 20
	CJGE Fort Mankesbury NS	Jan 30
	WITV La Crosse WI	Feb 12
1420	WFFS Sondra Strømfjord (Kangerdlugssuaq)	Jan 28
	CFVA Fairport CA	Sep 5
	WFCB Fairport NY	Feb 12
	WCCO Seward IA	Feb 17
1430	WFFS Thule	Nov 1
	WXXX Grande Prairie AB	Nov 18
	WZZM Aurora ON	Sep 5
1440	CFOR Ottawa ON	Sep 5
1460	WTCO Dickinson ND	Nov 21
	WSDO Des Moines IA	Sep 6
1470	CJVI Vancouver BC	Jan 28
	WVSL Sioux City IA	Nov 20
	WVSD Peoria IL	Jan 23
1480	CKLA Edmonton AB	Nov 20
	WAMS Austin TX	Feb 12
	WCCN Cincinnati OH	Feb 12
	WLEC Richmond VA	Feb 18
1490	CJMC Ste.-Anne-dee-Monts PQ	Jan 28
1500	WSTP St. Paul - Minneapolis MN	Jan 9
	WLCV Detroit MI	Sep 6
	WTOP Washington DC	Sep 6
1510	WGA Spokane WA	Jan 28
	WLAG Nashville TN	Sep 5
1520	WOMA Oklahoma City OK	Sep 5
	WKBW Buffalo NY	Sep 6
1530	CISV Minkler - Gordon MB	Feb 18
	KFBK Sacramento CA	Nov 21
1540	KXEL Waterloo IA	Sep 5
	WPTA Albany NY	Sep 5

ref. Greenland; some Danish names have been added in Inuit

1550	KVAN Vancouver WA	Nov 21
1560	KKAA Aberdeen SD	Nov 20
	WQXR New York NY	Jan 29
1570	CHUB Nanaimo BC	Jan 28
	CKLM Montreal PQ	Sep 6
	CKLG Brandon MB	Sep 5
	CKTA Taber AB	Feb 23
1580	WAKR Akron OH	Sep 5
1600	KCRG Cedar Rapids IA	Feb 12

EUROPE:

631	Sunshine Radio, Fortbarnock	Nov 2
666	WUV Hofn	Aug 18
711	FR-3 Radio Pays de Loire, Nantes	Nov 1
738	WUV Anouyri	Jun 8
774	RBC Radio Leeds	Nov 13
782	Voice of America, Kavala	Jan 6
	RBC Radio Ulster, Londonderry	Nov 13
	Radio Sevilla	Jan 29
828	MR2, Hannover	Dec 18
	Südwestfunk, Freiburg	Feb 10
	Bulgarian Radio, Sofia/Christo Potev	Jan 6
	Chiltern Radio, Banstable	Feb 5
837	FR-3 Lorraine Champagne Ardennes	Feb 10
t	RBC Radio Leicester	Dec 18
846	Radio Leve, Dublin	Nov 4
885	RBC Radio Lifford	Nov 13
894	Radio Espana de Madrid	Sep 5
	Rayonair Radio, Turin	Oct 3
863	Radio La Saalwachten, Amberg	Nov 18
890	Radio Bilbao	Jan 6
	RBC Radio Scotland, Aberdeen	Nov 13 - Feb 28 as RBC
1026	Mountain Radio, Belfast	Sep 5 Radio Aberdeen
1035	North Sound, Aberdeen	Oct 3
	West Sound, Inverness	Oct 31
1107	Lonky Earth Radio, Inverness	Feb 28 - Feb 14 as ISA
1110	RA12, Bari	Jan 4 Inverness
	RBC Radio Derby	Nov 7
1125	Radio Grimsby, Dundalk	Nov 7
	WDR Leitort	Feb 12
1134	Radio Zagreb, Tovernik	Feb 12
	RFI Radio, Dublin	Jul 15
1152	Radio Clyde, Glasgow	Sep 5
	Radio Radio, Leccisletle	Nov 1
1161	Radio Toy, Dundee	Oct 1
1170	Radio Koper - Capouistria	Oct 31
	Radio Victory, Portsmouth	Aug 4
	Swansea Sound	Aug 4
	Radio Tees, Stockton-on-Tees	Oct 31
	Radio Grell, Ipswich	Nov 3
1182	Radio Dublin	Dec 28
1197	Teletar Radio, Dundalk	Oct 30
1205	FR-3 Aquitaine Radio, Bordeaux	Feb 9
1235	KELO Radio 244, Swords	Nov 1
1260	Voice of America, Rhodes	Nov 2
	Radio Valencia	Dec 28
	Radio San Sebastian	Dec 25
	Radio Test, Bristol	Jan 7
	Centre Radio, Leicester	Dec 27
1285	Radio Novi Sad	Dec 28
1270	Pennine Radio, Bradford	Dec 29
1305	Parabe, Belgium	Nov 4
	Coynside Radio, Drogheda	Nov 4
	Community Radio Drogheda; Jan 8 as Radio Drogheda	Jul 15 - Nov 7 as
1314	Radio Centro, Madrid	Nov 5
	Ronic Independent Radio, Dublin	Jul 25
	NRK Kvitsoy (Televerket tests)	Feb 17
1323	Coynside Radio, Drogheda	Jul 15
1332	Harward Radio, Waterborough	Jul 30
1359	Radio Sound, Coventry	Nov 17
	Cardiff BC	Aug 4
	Essex Radio, Chelmsford	Jan 3

1368	RAI, Venezia etc.	Jan 6
	BBC Radio Lincolnshire	Dec 14
	Menx Radio, Douglas	Sep 10
1386	Radio Caroussel, Drogheda	Feb 9
1401	Radio Tirana	Feb 22
1431	Emissora das Ceiras, Caramulo	Jan 4
	Essex Radio, Southend-on-Sea	Oct 23
1449	Sender Freies Berlin	Feb 9
1458	BBC Radio Newcastle	Jan 8
	BBC Radio London	Oct 31
	BBC Radio Carlisle, Whitehaven	Nov 2
	BBC Radio Manchester	Nov 4
1484	RUV Kaufarhafn etc.	Aug 18
1485	AFRS Keflavik	Oct 23
	NRK Longyearbyen	Nov 21
	BBC Radio Pumphorside, Hull	Oct 31
	BBC Radio Mercyside, Liverpool	Nov 3
	BBC Radio 4, Carlisle	Dec 27
1494	FR-3 Rhone-Alpes-Auvergne, Cl.-Ferrand	Jan 8
	Beltsy/Komrat (Luceafarul), Moldavia	Jan 8
1503	BBC Radio Stoke-on-Trent	Nov 2
1510	RUV Siglufjordur etc.	Aug 18
1515	Radio Tirana	Feb 22
1521 t	Radio Pontevedra	Jan 25
	BBC Radio Nottingham	Nov 1
1548 t	RFC Radio Cleveland	Jan 4
	Radio Forth, Edinburgh	Aug 8
1562	RDP1, Covilha	Feb 16
1584	Radio Zamora	Jan 25
	Radio Tay, Perth	Nov 1
	BBC Radio Bristol, Taunton	Feb 5
1593	F. Ciuc, Romania	Nov 17
1602	BBC Radio Norfolk, King's Lynn	Nov 1
1611	Vatican Radio, Vatican City State	Sep 30
x 1143	AFN Bremerhaven	Jan 14
x 1350	Cesvaine, Latvian SSR	Nov 25
<b>ASIA:</b>		
1251	China, P. R.	Jan 29
1287 t	Galei Zahal, Tel Aviv	Nov 20
1296	Baku, Azerbaijan SSR	Dec 29
1305	Galei Zahal, Haifa	Sep 19
1332	China, P. R.	Nov 21
1341	Radio Yucait	Oct 23 - also hrd in
1413	BBC World Service, Nasirch I., Oman	Oct 30 September
1422	China, P. R.	Nov 21
1521	Urumqi, XJ, China, P. R.	Nov 3
1575	China, P. R.	Nov 21
<b>AFRICA:</b>		
1215	Radio Atlantico, Las Palmas	Jan 11 - also hrd in
		fall 1981
<b>SOUTH &amp; CENTRAL AMERICA:</b>		
950	Radio Vision 950, Caracas	Jan 30
1220	Radio Globo, Rio de Janeiro	Jul 15
1300 t	Radio Itacema, Fortaleza	Jul 30
1555	Radio Cayman, George Town	Jan 29
1580 t	Voice of America, Antigua	Sep 6
1610 t	Caribbean Beacon, Anguilla	Sep 5

## Cuba Disrupts U.S. Radio as Distant as Des Moines

By DAVID SHRIBMAN

Special to The New York Times

WASHINGTON, Aug. 31 — The Cuban Government, apparently responding to Reagan Administration plans to transmit radio programs into Cuba, disrupted American programming Monday night by broadcasting news and music programs on five AM frequencies.

Federal Communications Commission radio engineers said today that the broadcasts, which lasted for four hours, were stronger than any that had previously originated in Cuba. The broad-

casts featured news programs and English-speaking disk jockeys and included a plea to American listeners to write the Voice of Cuba in Havana.

The Cuban Government threatened earlier this summer to begin broadcasts that would disrupt American radio programming if Congress approved the Administration's proposal to establish Radio Marti, a Government radio station designed to provide news broadcasts to Cuba. The proposal was passed by nearly a 240-1 margin by the House this summer and is now being considered by the Senate Foreign Rela-

tions Committee.

The Cuban transmissions affected programming originating from at least two clear-channel radio stations, including the Des Moines station where Ronald Reagan began his broadcasting career.

Anita Stockman, a State Department spokesman, called the action "unfortunate evidence of continuing Cuban disregard for international agreements and the rule of the law."

She noted that the Cuban Government announced an increase in broadcasting activity in 1979 and added that Radio