



INTERNATIONAL AMATEUR RADIO UNION

REGION THREE

MONITORING SYSTEM REPORT



December 2009

Peter Young VK3MV

Reports for December have been received from, NZART, JARL, HARTS and WIA.

In this report the data files have been edited removing duplicate entries on the same frequency and intruder. A full data report is available upon request to myself vk3mv@wia.org.au.

The LaTrobe University's ionospheric research HF radar: This month I am pleased to report that through the combined efforts of NZART and the WIA working with their respective national communications regulators, and additional direct contact to the licensee from a number of amateurs and the Region 1 MS Coordinator, the interfering radar subsequently ceased operation in the 30 meter amateur band in accordance with its licence conditions. These licence conditions requires that the radar not cause interference to other radio services including the Amateur Service. The interfering emissions were found to be caused by a software fault that has now been rectified. An additional outcome of discussions has been the offer by the licensee for the Australian Communications and Media Authority (ACMA) staff to have direct access to the frequency control software in the event of any further problems. More information on this research radar can be found on the University's website: <http://www.tiger.latrobe.edu.au/>

The basic specifications of the TIGER radar are listed in the table below;

Frequency Band:	8 - 20MHz
Antenna Arrays:	Tx/Rx Array: 16 Horizontally polarised log-periodics 2nd Rx Array: 4 Horizontally polarised log-periodics
Beam Widths:	Horizontal: 4° at 10MHz, 3° at 14MHz, 2° at 18MHz Vertical: 50°
Lobe Levels:	< - 14dB for both back and side lobes
Transmitters:	16 x 600W (one per antenna in Tx/Rx array)
Total Peak Power:	9.6kW
Mean Power:	200W
Radiated Power:	12.5W in main beam direction
Tx Signals:	Pulse pattern duration: ~ 100ms Pulses width: 300us Bandwidth: 10kHz at -20dB Duty Cycle: 2.1% Carrier frequency

JARL has provided a comprehensive report of over 1000 intruder observations. There are numerous broadcasting intruders in 80 and 40 meters believed to be coming from Korea, China and Russia. The data fields have been edited as noted above.

From the WIA report Karl, VK6WX reports that propagation has declined more during December 2009. The only persistent intruders are on 14277.7 kHz from Indonesia, who are always there, but hard to track down. Off late, users from CLN have finally used 14000 kHz and they are now just below 14000 kHz with LSB modulation.

In the NZART report, 14 MHz signals notated with an * in the comments field, indicate that this is the same source and direction. Signal strength varies and so does the amount of bandwidth used. Bandwidth taken on average across 20 meters is approximately +/- 39 kHz but total bandwidth taken is on average +/- 390 kHz from 13 MHz through to 16 MHz.

ZL1BAD reports that there are two types of pulse signal appearing, at times, on 20 meters. One seems to be a form of OTHR and sending continuous pulses at the rate of 2 pulses per sec. The other signal is a form of communication and the replying station can some times be heard. This station sends bursts of varying length of 10-20 seconds, with a 10 second pause between each burst.

From MARTS, Rashid, 9M2RS reports that confirmation came from the Senior Director, Resources Assignment and Management Division, Malaysia Communications and Multimedia Commission, that Malaysia has cleared all broadcasting services from 7.100 to 7.200 kHz. All Malaysian amateurs are allowed to use this segment. MARTS has been working their regulator to achieve this good outcome.

In last months report I mentioned that an offer of assistance from Wolf, the Coordinator IARUMS Region 1 with those observers who need help in identify digital signals. Unfortunately I misprinted his call sign; it is DK2OM. Wolf suggests audio wav files with a sample rate of 44 kHz, can be sent to him for analysis. Thank you again Wolf.

Thank you to all this months observers.

kHz	BW	YYYY	MM	DDGMT	UTC	Emm	Bd	Sft	Hdg	ADM	IDDescription	Grid	Society
3504		2009	12	24<06:56>	0656	A1A				?	LDBMOn DX Cluster - RN6BN Beacon List RST 569 Legitimate?	RF66IM	NZART ZL3NB
3516.2		2009	12	24<06:56>	0656	J3E/U				?	UnidNon amateurs - Chinese dialect?	RF73FF	NZART ZL1AIH
											R. Voice of		
3560		2009	12	DY<09:00>	0900-2100	A3E				KRE	KoreaB-C Station	RF72LQ	NZART ZL1BAD
3560.0	6	2009	12	21	1025	A3E				NKR	Unid	QG52XI	WIA
3560	3	2009	12	01H24		A3E		321		KRE	Vo KoreaChinese Talk and - Music Numerous Reports		JARL Kujang
3560	3	2009	12	01H24		A3E		321		KRE	Vo KoreaKorean Talk and Music - Numerous Reports		JARL Kujang
3560	5	2009	12	03H24		A3E		321		RUS	Vo KoreaEnglish Talk and Music - Numerous Report		JARL Kujang
6894	228	2009	12	27<17:10>	1710	PXX				?	UnidOTHR S9	RF66IM	NZART ZL3NB
6927.5	175	2009	12	DY<10:50>	1050-1930	PXX				CHN	UnidOut of band OTHR with spill over to 7010 kHz	RF72LQ	NZART ZL1BAD
7000		2009	12	01<10:12>	1012-1201	J3E/L				INS	UnidIndonesian pirates	RF72IS	NZART ZL1BYA
7000		2009	12	02<09:35>	0935-1135	J3E/L				INS	UnidIndonesian Pirates	RF72IS	NZART ZL1BYA
7000		2009	12	05<10:24>	1024	J3E/L				INS	UnidIndonesian Pirates	RF72IS	NZART ZL1BYA
7000		2009	12	06<09:51>	0951-1115	J3E/L				INS	UnidIndonesian Pirates	RF72IS	NZART ZL1BYA
7000		2009	12	09<09:48>	0948-1144	J3E/L				INS	UnidIndonesian Pirates	RF72IS	NZART ZL1BYA
7000		2009	12	11<10:35>	1035-1155	J3E/L				INS	UnidIndonesian Pirates	RF72IS	NZART ZL1BYA
7000		2009	12	12<09:30>	0930-1123	J3E/L				INS	UnidIndonesian pirates	RF72IS	NZART ZL1BYA
7000		2009	12	13<09:25>	0925	J3E/L				INS	UnidIndonesian pirates	RF72IS	NZART ZL1BYA
7000		2009	12	18<09:45>	0945-1145	J3E/L				INS	UnidIndonesian pirates	RF72IS	NZART ZL1BYA
7000		2009	12	30<10:00>	1000	J3E/L				INS	UnidIndonesian pirates	RF72IS	NZART ZL1BYA
7000		2009	12	DY	HX24	J3E/L/U				INS	Unidnon Amateurs	RF72LQ	NZART ZL1BAD
7000.5	01	2009	12	03<10:08>	1008-1117	P0N				CHN	UnidO.T.H.R. 43.1 ppsec	RF72IS	NZART ZL1BYA
7001.5	9	2009	12	03<10:08>	1008-1117	J3E/L				INS	UnidIndonesian Pirates	RF72IS	NZART ZL1BYA
7002	2	2009	12	18<11:17>	1117-1145	P0N				CHN	UnidO.T.H.R. 43.1 ppsec	RF72IS	NZART ZL1BYA
7003.0	96	2009	12	16	1018	P0N				Unid	UnidSpill over from CF 6953Khz upward sweep.	QF22	WIA
7004	08	2009	12	07<11:04>	1104	P0N				CHN	UnidO.T.H.R. 43.1 ppsec	RF72IS	NZART ZL1BYA
7004.5	09	2009	12	09<09:48>	0948-1144	P0N				CHN	UnidO.T.H.R. 43.1 ppsec	RF72IS	NZART ZL1BYA
7005	10	2009	12	05<11:45>	1145	P0N				CHN	UnidO.T.H.R. 43.1 ppsec	RF72IS	NZART ZL1BYA
7005	10	2009	12	08<10:48>	1048-1149	P0N				CHN	UnidO.T.H.R. 43.1 ppsec	RF72IS	NZART ZL1BYA
7005	10	2009	12	27<11:33>	1133-1243	P0N				CHN	UnidOTHR 43.1 ppsec	RF72IS	NZART ZL1BYA
7005	10	2009	12	26<16:55>	1655	PXX				?	UnidOTHR	RF80HL	NZART ZL2IFB
7005	10	2009	12	13	14:00<1310>	PXX				CHN	6910 kHz ~ 7010 kHz OTHR	OL72AH	HARTS
7007	14	2009	12	04<11:10>	1110-1130	P0N				CHN	UnidO.T.H.R. 43.1 ppsec	RF72IS	NZART ZL1BYA
7012		2009	12	09<11:47>	1147	J7D				?	Unid10 Channels plus 1 pilot	RF72IS	NZART ZL1BYA
7013.5		2009	12	01<09:48>	0948	F1B	75	250		?	UnidEncrypted	RF72IS	NZART ZL1BYA
7014		2009	12	04<11:10>	1110-1130	F1B	50	200		?	UnidEncrypted then into a warbling carrier	RF72IS	NZART ZL1BYA
7014.5		2009	12	03<06:15>	0615-0700	F1B		500		?	UnidEncrypted	RF72LQ	NZART ZL1BAD
7014.5		2009	12	31<06:50>	0650-0720	F1B		500		?	UnidEncrypted	RF72LQ	NZART ZL1BAD
7015		2009	12	02<11:37>	1131-1137	F1B	75	250		?	UnidEncrypted	RF72IS	NZART ZL1BYA
7015	30	2009	12	17<18:30>	1830-1930	PXX				?	UnidPulses 2 per second	RF72LQ	NZART ZL1BAD
7015	30	2009	12	30<17:15>	1715-1730	PXX				?	UnidPulses at 2 per second	RF72LQ	NZART ZL1BAD
7016		2009	12	10<07:57>	0757-0759.	F1B	75	200		?	UnidEncrypted then off air	RF72IS	NZART ZL1BYA

7016.7		2009	12	27<18:44>	1844	F1B	50	1000	RUS	REA4S7 QSB	RF80HL	NZART	ZL2IFB
7017		2009	12	27<18:44>	1844	F1B	50	1000	RUS	REA4 Confirmed with ZL1BYA and ZL3NB	RF66IM	NZART	ZL3NB
7017	34	2009	12	081806		PXX			non non	non 7000KHz ~ 7034KHz wide pulse mode PXX OTHR ?		JARL	non
7018		2009	12	01<11:54>	1154	F1B	50	500	RUS	REA4Idling, RY's Usual shift is 1000Hz	RF72IS	NZART	ZL1BYA
7018		2009	12	02<11:23>	1123-1130	F1B	50	1000	RUS	REA4Idling, RY's back to 1000 Hz shift	RF72IS	NZART	ZL1BYA
7018		2009	12	03<11:11>	1111-1142	F1B	50	1000	RUS	REA4Idling, RY's	RF72IS	NZART	ZL1BYA
7018		2009	12	04<20:35>	2035	F1B	50	1000	RUS	REA4Idling, RY's	RF72IS	NZART	ZL1BYA
7018		2009	12	04<11:03>	1103-1131	F1B	50	200	RUS	REA4Idling, RY's changed shift to 200Hz	RF72IS	NZART	ZL1BYA
7018		2009	12	05<11:46>	1146	F1B	50	1000	RUS	REA4Idling, RY's	RF72IS	NZART	ZL1BYA
7018		2009	12	06<12:07>	1207	F1B	50	1000	RUS	REA4Idling, RY's	RF72IS	NZART	ZL1BYA
7018		2009	12	07<11:05>	1105	F1B	50	500	RUS	REA4Idling, RY's changed to s500 Hz shift	RF72IS	NZART	ZL1BYA
7018		2009	12	DY<11:00>	1100-2100	F1B		250	RUS	Unid Idle Sigs	RF72IS	NZART	ZL1BAD
7018		2009	12	27<11:43>	1143	F1B	50	250	RUS	REA4ID by CW Usually the shift is 1000 or 500 Hz	RF72IS	NZART	ZL1BAD
7019	3	2009	12	011924		F1B	non	non	non non	nonIDL only		JARL	non
7019	3	2009	12	012016		F1B	non	non	non non	nonIDL only		JARL	non
7019	3	2009	12	012144		F1B	non	non	non non	nonIDL only		JARL	non
7019	3	2009	12	021914	anytime	F1B	non	non	non non	nonIDL only	PM97	JARL	non
7019	3	2009	12	031814		F1B	non	non	non non	nonIDL only		JARL	non
7019	3	2009	12	032140		F1B	non	non	non non	nonIDL only		JARL	non
7019	3	2009	12	041810		F1B	non	non	non non	nonIDL only		JARL	non
7019	3	2009	12	042228		F1B	non	non	non non	nonIDL only		JARL	non
7019	3	2009	12	042306		A3E	non	non	non non	nonIDL only		JARL	non
7024	36	2009	12	061816		PXX			non non	non 7006KHz ~ 7042KHz wide pulse mode PXX OTHR ?		JARL	non
7025	30	2009	12	11<17:15>	1715	PXX			?	UnidPulses at 2 per second	RF72IS	NZART	ZL1BAD
7030.5		2009	12	07<11:14>	1114	J7D			CHN	Unid Chinese system 4+4	RF72IS	NZART	ZL1BYA
7038.7		2009	12	10<09:32>	0932	A1A			RUS	RITS = Northern Fleet HQ, Severomorsk S5	RF80HL	NZART	ZL2IFB
7038.9		2009	12	10<09:32>	0932	A1A			RUS	RIW Moscow - Beacon C	RF80HL	NZART	ZL2IFB
7039.0		2009	12	DY	H24	A1A			RUS	RIW Moscow - Beacon C	RF72LQ	NZART	ZL1BAD
7039		2009	12	DY	H24	A1A			RUS	A Astrakhan (No call sign) Beacon A	RF72LQ	NZART	ZL1BAD
7039		2009	12	DY	H24	A1A			RUS	RJSVladivostok - Beacon F	RF72LQ	NZART	ZL1BAD
7039		2009	12	DY	H24	A1A			RUS	RMPKaliningrad - Beacon P	RF72LQ	NZART	ZL1BAD
7039	0.5	2009	12	010012	H24	A1A		321	RUS	F--signal Beacon - Numerous Reports		JARL	Vladivostok
7039	0.5	2009	12	010740	H24	A1A		314	RUS	K--signal Beacon - Numerous Reports		JARL	Petropavlovs
7039	0.5	2009	12	052138	H24	A1A		325	RUS	C--signal Beacon - Numerous Reports		JARL	Moscow
7039	0.5	2009	12	112306	H24	A1A		non	non	T--signal Beacon - Numerous Reports		JARL	non
7039	34	2009	12	211816		PXX			non non	non 7022KHz ~ 7056KHz Wide pulse mode PXX OTHR ?		JARL	non
7039.3	0.1	2009	12	16	1028	A1A			Unid	F"F" CW Beacon	QF22	WIA	
7039.4		2009	12	DY	H24	A1A			RUS	RTSMagadan - Beacon M	RF72LQ	NZART	ZL1BAD
7039.7		2009	12	DY	H24	A1A			RUS	RCVSevastopol - Beacon D	RF72LQ	NZART	ZL1BAD
7039.9		2009	12	DY	H24	A1A			RUS	RITSeveromorsk - Beacon S	RF72LQ	NZART	ZL1BAD

7040	38	2009	12	221804		PXX	non	non	non 7031KHz ~ 7059KHz wide pulse mode PXX OTHR ?	JARL	non	
7043	08	2009	12	01<11:52>	1152	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
									Unidentified system, galloping sound. Finally caught it at			
7044	08	2009	12	11<10:43>	1043	F7D		?	Unid start up time.	RF72IS	NZART	ZL1BYA
7044		2009	12	27<11:45>	1145	F7D		?	Unid Galloping Sound	RF72IS	NZART	ZL1BYA
7044	10	2009	12	26<16:55>	1655-1657	PXX		?	Unid OTHR 43.1 S9	RF80HL	NZART	ZL2IFB
7044		2009	12	26<16:55>	1655-1657	F7D		?	Unid Fast speed transmission	RF80HL	NZART	ZL2IFB
7044		2009	12	26<06:55>	0655	F1D		?	Unid Confirmed by ZL3NB S9 QSB	RF66IM	NZART	ZL3NB
7044.5	09	2009	12	07<11:27>	1127	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
7045	08	2009	12	02<11:20>	1120-1136	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
7045	06	2009	12	03<11:08>	1108-1143	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
7045	06	2009	12	04<11:00>	1100-1132	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
7045	06	2009	12	05<11:55>	1155	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
7045	06	2009	12	06<10:46>	1046-1205	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
7045	08	2009	12	08<10:51>	1051-1148	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
7045	06	2009	12	09<11:48>	1148	F7D		?	Unid Unidentified system, galloping sound.	RF72IS	NZART	ZL1BYA
7047	34	2009	12	311126		PXX	non	non	non 7030KHz ~ 7064KHz wide pulse mode PXX OTHR ?	JARL	non	
7047	34	2009	12	311334		PXX	non	non	non 7030KHz ~ 7064KHz wide pulse mode PXX OTHR ?	JARL	non	
7050.0	50	2009	12	21	1025	PXX		Unid	Unid OTHR	QG52XI	WIA	
7050	34	2009	12	121810		PXX	non	non	non 7036KHz ~ 7070KHz wide pulse mode PXX OTHR ?	JARL	non	
7050	34	2009	12	141804		PXX	non	non	non 7036KHz ~ 7070KHz wide pulse mode PXX OTHR ?	JARL	non	
7050	34	2009	12	241204		PXX	non	non	non 7036KHz ~ 7070KHz wide pulse mode PXX OTHR ?	JARL	non	
7054		2009	12	DY<06:15>	0615-2000	F1B	250	RUS	Unid Idling sigs only	RF72LQ	NZART	ZL1BAD
7075	34	2009	12	11<10:09>	1009-1158	P0N		?	Unid CODAR sea state radar	RF72IS	NZART	ZL1BYA
7076		2009	12	06<16:05>	1605	F1A/F1B	250	?	Unid RTTY Encrypted. F1A FSK Morse procedures	RF72LQ	NZART	ZL1BAD
7077		2009	12	17<17:00>	1700-1800	A1A		RUS	RCV Beacon D spurious from 7039	RF72LQ	NZART	ZL1BAD
7078	17	2009	12	15<16:50>	1650-1700	VXX		?	Unid CODAR 3 PPS Confirmed with audio sample	RF80HL	NZART	ZL2IFB
7083		2009	12	23<10:45>	1045-1120	F1B	200	?	Unid Encrypted	RF72LQ	NZART	ZL1BAD
7083	34	2009	12	131804		A1A	non	non	non 7066KHz ~ 7100KHz wide pulse mode PXX OTHR ?	JARL	non	
7083	34	2009	12	301810		PXX	non	non	non 7066KHz ~ 7100KHz wide pulse mode PXX OTHR ?	JARL	non	
7083.5	95	2009	12	18<09:50>	0950-1147	P0N		?	Unid CODAR sea state radar	RF72IS	NZART	ZL1BYA
7085	30	2009	12	04<13:30>	1330-1740	PXX		?	Unid Pulses at 2 per sec. Also on 5th, 13, 16, 17th at same times.	RF72LQ	NZART	ZL1BAD
7088.5	33	2009	12	04<09:36>	0936	P0N		?	Unid CODAR sea state radar	RF72IS	NZART	ZL1BYA
7093	34	2009	12	231232		PXX	non	non	non 7076KHz ~ 7110KHz wide pulse mode PXX OTHR ?	JARL	non	
7093.5	21	2009	12	07<10:55>	1055	P0N		?	Unid CODAR sea state radar	RF72IS	NZART	ZL1BYA
7095		2009	12	01<12:13>	12.13	F8D		?	1104 ALE, calling 1101	RF72IS	NZART	ZL1BYA
7095		2009	12	01<12:21>	12.21	F8D		?	1101 ALE Sounding	RF72IS	NZART	ZL1BYA
7095		2009	12	01<12:21>	12.21	F8D		?	1101 ALE Sounding	RF72IS	NZART	ZL1BYA
7095		2009	12	01<12:22>	12.22	F8D		?	1101 ALE Sounding	RF72IS	NZART	ZL1BYA
7095		2009	12	01<12:22>	12.22	F8D		?	1101 ALE Sounding	RF72IS	NZART	ZL1BYA
7095		2009	12	02<10:26>	10.26	F8D		?	1104 ALE Sounding	RF72IS	NZART	ZL1BYA
7095		2009	12	02<10:29>	10.29	F8D		?	110 Calling 1101	RF72IS	NZART	ZL1BYA
7095		2009	12	02<10:29>	10.29	F8D		?	1104 Calling 1101	RF72IS	NZART	ZL1BYA

7095		2009	12	02<11:15>	11.15	F8D		?	110Calling 1101 710	RF72IS	NZART	ZL1BYA
7095		2009	12	02<11:15>	11.15	F8D		?	1103Calling 1101	RF72IS	NZART	ZL1BYA
7095		2009	12	03<10:58>	10.58	F8D		?	1103Calling 110	RF72IS	NZART	ZL1BYA
7095		2009	12	03<11:04>	11.04	F8D		?	1104Calling 1101 210	RF72IS	NZART	ZL1BYA
7095		2009	12	03<11:23>	11.23	F8D		?	1104 Sounding	RF72IS	NZART	ZL1BYA
7095	34	2009	12	231042		PXX	non	non	non 7078KHz ~ 7112KHz wide pulse mode PXX OTHR ?	JARL		non
7098	22	2009	12	06<10:40>	1040-1204	P0N		?	UnidCODAR sea state radar	RF72IS	NZART	ZL1BYA
7098		2009	12	15<08:05>	0805	F1B	250	?	Unid Encrypted	RF72LQ	NZART	ZL1BAD
7100		2009	12	20<18:50>	1850	A3A		KRE	R.Voice of Korea. French "L' armée populaire de Korée" KRE Pyongyang	RF80HL	NZART	ZL2IFB
7100	30k	2009	12	19<11:25>	1125	PXX		?	UnidPulses at 2 per second	RF72LQ	NZART	ZL1BAD
7100		2009	12	DY<18:00>	1800-2000	A3E		KRE	R.Voice of Korea. B.C. Stn. Pyongyang.	RF72LQ	NZART	ZL1BAD
7100	5	2009	12	021908	H24	A3E	321	KRE	Vo Korea English Talk and Music - Numerous Reports	JARL		Kujang
7100	5	2009	12	031800	H24	A3E	321	KRE	Vo Korea French Talk and Music _ Numerous Reports	JARL		Kujang
7105	1	2009	12	012157	H24	A0A	non	non	nonno modulation 21:57:20 UTC on air	JARL		non
7105	5	2009	12	012158	H24	A3E	273	CHN	PBS Nei Meng Chinese Talk and Music 21:58:20 UTC Program start	JARL		Hohhot
7105	5	2009	12	012200	H24	A3E	273	CHN	PBS Nei Meng Chinese Talk and Music 22:00 UTC Time signal 5+1 2sec late	JARL		Hohhot
7105	3	2009	12	012200	H24	A3E	non	CHN	Chinese Talk and Music 22:00 UTC no time signal	PM97	JARL	non
7105	3	2009	12	012256	H24	A3E	non	CHN	nonProgram start nonChinese Talk and Music	JARL		non
7105	5	2009	12	012300	H24	A3E	273	CHN	PBS Nei Meng Chinese Talk and Music	JARL		Hohhot
7105	5	2009	12	022204	H24	A3E	273	CHN	PBS Nei Meng Chinese Talk and Music	JARL		Hohhot
7110		2009	12	13<05:00>	0500	A3A		MLA	R.Malaysia Broadcast Station Radio Malaysia	RF80JI	NZART	ZL2AAA
7110		2009	12	26<05:37>	0537-0545	A3A		MLA	R.Malaysia Broadcast Station Radio Malaysia	RF73MF	NZART	ZL1GWE
7110		2009	12	20<18:20>	1820	A3A		ETH	R.Ethopia Voice of the Masses Amharic S7	RF80HL	NZART	ZL2IFB
7110		2009	12	26<05:37>	0537	A3A		MLA	R.Malaysia Broadcast Station Radio Malaysia	RF73MF	NZART	ZL1GWE
7117		2009	12	18<10:12>	1012	J8D		?	Unid10 Channels.	RF72IS	NZART	ZL1BYA
7122		2009	12	09<09:55>	0955-1143	J7D		?	Unid12 channels plus 1 pilot	RF72IS	NZART	ZL1BYA
7125		2009	12	20<18:25>	1825	A3A		?	UnidGuinea? Radio Conakry unconfirmed S5	RF80HL	NZART	ZL2IFB
7128	3	2009	12	031802		JM	non	non	non Moterboat type JM	JARL		non
7137	34	2009	12	031810		PXX	non	non	non 7120KHz ~ 7154KHz wide pulse mode PXX OTHR ?	JARL		non
7140		2009	12	14<08:00>	0800	A3A		KRE	R.Voice of Korea. B.C. Stn. Pyongyang.	RF73IH	NZART	ZL1OGX
7140		2009	12	16<07:30>	0730-0850	A3A		KRE	R.Voice of Korea. B.C. Stn. Pyongyang. S9	RF80JI	NZART	ZL2AAA
7140		2009	12	16<07:30>	0730	A3A		KRE	R.Voice of Korea. B.C. Stn. Pyongyang. S9+	RF72NO	NZART	ZL1KFM
7140	5	2009	12	010010	anytime	A3E	321	KRE	Vo Korea Korean Talk and Music Numerous Reports	PM97	JARL	Kujang
7140	3	2009	12	011212		A3E	352	RUS	NVK R Sakha Russian Talk and Music	JARL		Yakutsk
7150	3	2009	12	071802		A3E	non	non	nonunkown Talk and Music	JARL		non

7150	3	2009	12	091802		A3E	non	non	nonunkown	Talk and Music	JARL	non	
7150	3	2009	12	131810		A3E	non	non	nonunkown	Talk and Music	JARL	non	
7150	3	2009	12	211810		A3E	non	non	nonunkown	Talk and Music	JARL	non	
7150	3	2009	12	241816		A3E	non	non	nonunkown	Talk and Music	JARL	non	
7150	3	2009	12	261810		A3E	non	non	nonunkown	Talk and Music	JARL	non	
7150	3	2009	12	271820	anytime	A3E	non	non	nonunkown	Talk and Music	PM97	JARL	non
7151		2009	12	10<07:30>	0730	A3E/U		?	Unid	Asian Sounding intruders S59+ From Gisbourne	RF81WM	NZART	ZL2CC
7162.5		2009	12	05<10:30>	1030	J7D		Unid	system 4+4	Chinese	RF72IS	NZART	ZL1BYA
7165		2009	12	20<18:30>	1830	A3A		ETH	R.Ethopia	Voice of the Masses Amharic	RF80HL	NZART	ZL2IFB
7165	3	2009	12	061342		A3E	non	non	nonunkown	Talk and Music	JARL	non	
7165	5	2009	12	061420	anytime	A3E	non	non	nonunkown	Talk and Music	PM97	JARL	non
7165	3	2009	12	111802	anytime	A3E	non	non	nonunkown	Talk and Music	PM97	JARL	non
7171.0	0.1	2009	12	3	0830	A1A		Unid	MIXED NUMBER LTR CIPHER, NO FOREIGN	CHARACTERS	QG52XI	WIA	
7173	34	2009	12	112218		PXX	non	non	non7156KHz ~ 7190KHz wide pulse mode	PXX OTHR ?	JARL	non	
7173	34	2009	12	112308		PXX	non	non	non7156KHz ~ 7190KHz wide pulse mode	PXX OTHR ?	JARL	non	
7180	3	2009	12	012202		A3E	321	KRE	Vo Korea	Chinese Talk and Music - Numerous Reports	JARL	Kujang	
7200		2009	12	16<07:30<	0730-0850	A3A		?	Unid	BC Station Splatters into AR spectrum S9	RF80JI	NZART	ZL2AAA
7200.0	6	2009	12	1	1025	A3E		RUS	Unid	RADIO SAHKA	QG52XI	WIA	
7200	5	2009	12	010742		A3E	352	RUS	NVK R	Sakha Russian Talk and Music - Numerous Reports	JARL	Yakutsk	
10105		2009	12	20<19:44>	1944-2344	PXX		AUS	Unid	Bruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10105		2009	12	21<00:00>	0000-0330	PXX		AUS	Unid	Bruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
10105.0	12	2009	12	8	0508	PON		AUS	Tiger Radar	Bruny Island, Beam 01 & 07	QF22	WIA	
10105.0	12	2009	12	10	0356	PON		AUS	Tiger Radar	S9+30 9kHz BW	QF22	WIA	
10105.0	12	2009	12	11	0243	PON		AUS	Tiger Radar	S9+30 9kHz BW	QF22	WIA	
10105.0	12	2009	12	19	0410	PON		AUS	Tiger Radar	Beam 1, 14, 11. S9 9 kHz BW	QF22	WIA	
10105.0	12	2009	12	21	2130	PON		AUS	Tiger Radar	Beam 1, 14, 11.	QF22	WIA	
10110.0	12	2009	12	11	0308	PON		AUS	Tiger Radar	Beam 5	QF22	WIA	
10110.0	12	2009	12	19	0410	PON		AUS	Tiger Radar	Beam 1, 14, 11. S9 9 kHz BW	QF22	WIA	
10115		2009	12	20<19:44>	1944-2344	PXX		AUS	Unid	Bruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10115		2009	12	21<00:00>	0000--330	PXX		AUS	Unid	Bruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
10115.0	12	2009	12	21	2130	PON		AUS	Tiger Radar	Beam 1, 14, 11	QF22	WIA	
10135		2009	12	20<19:44>	1944-2344	PXX		AUS	Unid	Bruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10135		2009	12	21<00:00>	0000-0330	PXX		AUS	Unid	Bruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
10135.0	12	2009	12	11	0304	PON		AUS	Tiger Radar	S7 3kHz BW	QF22	WIA	
10135.0	12	2009	12	21	2130	PON		AUS	Tiger Radar	Beam 1, 14, 11	QF22	WIA	
10140		2009	12	20<19:44>	1944-2344	PXX		AUS	Unid	Bruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10140		2009	12	21<00:00>	0000-0330	PXX		AUS	Unid	Bruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
10140		2009	12	18<00:00>	0000-0600	PXX		AUS	Unid	afternoon	RE55OO	NZART	ZL3PN
10140.0	12	2009	12	11	0243	PON		AUS	Tiger Radar	Beam 14, 3, 1, 6. S9 3kHz BW	QF22	WIA	
10140.13		2009	12	21<00:40>	0040-0330	PXX		AUS	Unid	Bruny Island, Tasmania OTHR - 10 PPS	RF74CL	NZART	ZL2IK

10145.0	12	2009	12	19	0410	PON	AUS	Tiger RadarBeam 1,14,11.	QF22	WIA	
10145.0	12	2009	12	21	2130	PON	AUS	Tiger RadarBeam 1,14,11	QF22	WIA	
10150	30	2009	12	17<16:00>	1600-1800	PXX	CYP	UnidZC2RADAR Suspected 26 Pulses per Second	RF73HD	NZART	ZL1ATB
10150		2009	12	20<19:44>	1944-2344	PXX	AUS	UnidBruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10150		2009	12	21<00:00>	0000-0330	PXX	AUS	UnidBruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
10151	22	2009	12	18<22:40>	2240	PXX	CYP	UnidOTHR constant 26 PPPS - ZC2RADAR	RF74CI	NZART	ZL2IK
10155		2009	12	20<19:44>	1944-2344	PXX	AUS	UnidBruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10155		2009	12	21<00:00>	0000-0330	PXX	AUS	UnidBruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
10160		2009	12	20<19:44>	1944-2344	PXX	AUS	UnidBruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10160		2009	12	21<00:00>	0000-0330	PXX	AUS	UnidBruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
10186	5	2009	12	30<04:32>	0432-0641	PXX	?	UnidOTHR S7	RF73MF	NZART	ZL1GWE
10195		2009	12	20<19:44>	1944-2344	PXX	AUS	UnidBruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10195		2009	12	21<00:00>	0000-0330	PXX	AUS	UnidBruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
10200		2009	12	20<19:44>	1944-2344	PXX	AUS	UnidBruny Island, Tasmania OTHR plus web site confirmed	RF73MF	NZART	ZL1GWE
10200		2009	12	21<00:00>	0000-0330	PXX	AUS	UnidBruny Island, Tasmania OTHR	RF73MF	NZART	ZL1GWE
14000		2009	12	DY	HX24	J3E	INS	UnidNon-Amateurs	RF72LQ	NZART	ZL1BAD
14000	3	2009	12	7	22:55-23:05 <22:40-	J3E/L	315	CLN	UnidGroup of males work from boats	OF84wx	WIA
14000	3	2009	12	9	23:50	J3E/L	315	CLN	UnidGroup of males	OF84wx	WIA
14000	3	2009	12	10	23:10-23:30 <23:30-	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA
14000	3	2009	12	11	23:45	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA
14000	3	2009	12	12	0<07:12>	J3E/L	360	INS	UnidGroup of males	OF84wx	WIA
14000	3	2009	12	15	23:12-23:33	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA
14000	3	2009	12	16	23:25-23:50	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA
14000	3	2009	12	17	23:42-00:05	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA
14000	3	2009	12	19	00:05-00:10 <23:50-	J3E/U	315	CLN	Unid2 males	OF84wx	WIA
14000	3	2009	12	19	00:11	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA
14000	3	2009	12	20	23:36-23:58	J3E/U	315	CLN	Unid1 singer, on-off no reply	OF84wx	WIA
14000	3	2009	12	21	23:40-23:50	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA
14000.0	3	2009	12	21	0900 <08:25-	J3E/U	CHN	Unid	QG52XI	WIA	
14000	3	2009	12	30	09:00 <22:40-	J3E/L	315	CLN	Unid2 males	OF84wx	WIA
14000	3	2009	12	30	23:00	J3E/L	315	CLN	Unid2 males	OF84wx	WIA
14001	3	2009	12	15	<08:24>	J3E/U	360	Unid	UnidMale-female	OF84wx	WIA
14001.4	3	2009	12	1	1000	J3E/U	Unid	Unid	QG52XI	WIA	
14002	4	2009	12	27<00:00>	0000-0530	PXX	?	UnidOTHR *	RF73MF	NZART	ZL1GWE
14002.1	3	2009	12	17	1025	J3E/U	Unid	UnidORIENTAL, NOT CHINESE	QG52XI	WIA	
14003	5	2009	12	26<00:00>	0000-0530	PXX	?	UnidOTHR 66.6/58.5 pps changes down 2 KHz down varies +/-	* RF73MF	NZART	ZL1GWE
14003	6	2009	12	30<04:32>	0432-0641	PXX	?	UnidOTHR S7 * See separate comment	RF73MF	NZART	ZL1GWE
14003		2009	12	30<06:41>	0641-0643	J3E/L	?	UnidAsian non amateurs + OTHR *	RF73MF	NZART	ZL1GWE

14003	3	2009	12	30	<23:30-00:46	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14003	3	2009	12	31	00:00-00:17	J3E/U	315	CLN	Unid2 males	OF84wx	WIA	
14006		2009	12	25<05:55>	0555-0610	J3E/U		KRE	UnidSample taken and confirmed as South Korean non amateur	RF73MF	NZART	ZL1GWE
14006.4	3	2009	12	1	1000	J3E/U		Unid	Unid	QG52XI	WIA	
14006.5		2009	12	23<11:20>	1120	J3E/U		?	UnidNet , Hindi Language, Indian Army Confirmed as Sri Lankan speaking Sinhala via Arasu	RF72LQ	NZART	ZL1BAD
14014		2009	12	26<18:30>	1830	J3E/U		CLN	UnidVU2UR Diesel engines	RF80HL	NZART	ZL2IFB
14020.0	1	2009	12	21	0855	F1B		Unid	UnidHIGH BAUD RATE, NO DECODES	QG52XI	WIA	
14022.9	3	2009	12	22	0000-0030	J3E/U		Unid	UnidORIENTAL, NOT CHINESE	QG52XI	WIA	
14028	3	2009	12	9	<08:20>	J3E/U	360	UNI	Unid2 males 1 female	OF84wx	WIA	
14028	3	2009	12	12	<07:13>	J3E/L	360	UNI	UnidMale-female, Chinese	OF84wx	WIA	
14028.0	3	2009	12	21	0850	J3E/U		CHN	UnidDAILY	QG52XI	WIA	
14028.1	3	2009	12	26	0940	J3E/U		Unid	UnidARABIC SOUNDING	QG52XI	WIA	
14028.2	3	2009	12	22	0000-0030	J3E/U		Unid	UnidORIENTAL	QG52XI	WIA	
14029		2009	12	16<07:00>	00705>	J3E/L		?	UnidAsian non amateurs	RE78JQ	NZART	ZL2AUJ
14029		2009	12	28<07:37>	0737	J3E/U		?	UnidAsian, non amateurs	RE78JQ	NZART	ZL2AUJ
14029	3	2009	12	18	<22:20-22:46	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14029	3	2009	12	20	<22:25-22:44	J3E/U	315	CLN	Unid2 males	OF84wx	WIA	
14029	3	2009	12	30	<22:40-23:20	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14032.4	3	2009	12	18	23:25-23:40	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14033.4	3	2009	12	17	1020	J3E/U		Unid	UnidORIENTAL, NOT CHINESE	QG52XI	WIA	
14034.5	3	2009	12	22	0950	J3E/U		CHN	Unid	QG52XI	WIA	
14035		2009	12	06<02:05>	0205	A3E/U		?	UnidNon Amateurs Asian Language	RF73MF	NZART	ZL1GWE
14036.7	3	2009	12	18	<09:15-09:57	J3E/L	360	Unid	UnidMale-female, Chinese	OF84wx	WIA	
14039.8	3	2009	12	21	0845	J3E/U		Unid	UnidORIENTAL, NOT CHINESE	QG52XI	WIA	LOUD
14042.5	3	2009	12	1	1015	J3E/U		CHN	Unid	QG52XI	WIA	
14042.7	3	2009	12	12	<07:10>	J3E/U	360	UNI	UnidMale-female, Chinese	OF84wx	WIA	
14042.9	3	2009	12	16	1015	J3E/U		CHN	Unid	QG52XI	WIA	
14046.0	3	2009	12	1	0900	J3E/U		CHN	UnidDAILY, CHINESE, FISHBOAT, ENGINE NOISE	QG52XI	WIA	
14048		2009	12	16<03:50>	0350-0400	J3E/L		?	UnidNon Amateurs Asian Language	RF78JQ	NZART	ZL2AUJ
14048	3	2009	12	17	00:20-00:30	J3E/U	360	INS	Unid2 males, 1singer!	OF84wx	WIA	
14048.0	3	2009	12	22	0050	J3E/U		Unid	UnidORIENTAL	QG52XI	WIA	
14050		2009	12	19<11:35>	1135-1200	J3E		?	UnidNet, Hindi language, Indian Army ?	RF72LQ	NZART	ZL1BAD
14050.0	50	2009	12	19	0425	PXX		Unid	UnidOTHR	QG52XI	WIA	
14051.9	3	2009	12	24	0955	J3E/U		Unid	UnidORIENTAL	QG52XI	WIA	
14054	5	2009	12	27<00:00>	0000-0530	PXX		?	OTHR * Widespread takes up 39 kHz of 14 MHz band on Unidaverage	RF73MF	NZART	ZL1GWE
14055	5	2009	12	26<00:00>	0000-0530	PXX		?	UnidOTHR 66.6/58.5 PPS	RF73MF	NZART	ZL1GWE
14055	6.5	2009	12	30<04:32>	0432-0641	PXX		?	UnidOTHR S6 * See separate comment	RF73MF	NZART	ZL1GWE

14057.5	3	2009	12	16	10:10-10:24	J3E/U	360	Unid	Unid2 males	OF84wx	WIA	
14057.6	3	2009	12	15	0030-0940	J3E/U		CHN	UnidDAILY	QG52XI	WIA	
14064		2009	12	28<06:45>	0645	F1B	250	?	UnidEncrypted	RF72LQ	NZART	ZL1BAD
14065.0	3	2009	12	19	0950	J3E/U		Unid	UnidORIENTAL, NOT CHINESE	QG52XI	WIA	
14065.0	0.1	2009	12	22	0000-0030	N0N		PHL	UnidVOA IMD	QG52XI	WIA	
14065.0	0.1	2009	12	22	0030-0100	N0N		PHL	UnidVOA IMD	QG52XI	WIA	
14084		2009	12	28<06:00>	0600-0620	F1B	250	?	UnidEncrypted	RF72LQ	NZART	ZL1BAD
14097.9	3	2009	12	22	0030	J3E/U		Unid	UnidORIENTAL	QG52XI	WIA	
14101.0	12	2009	12	1	0640	PON			UnidPulses 10-17 sec intervals. Upward sweep	QF22	WIA	VK3MV
									OTHR * Widespread takes up 39 kHz of 14 MHz band on			
14106	4	2009	12	27<00:00>	0000-0530	PXX		?	Unidaverage	RF73MF	NZART	ZL1GWE
14107	5	2009	12	26<00:00>	0000-0530	PXX		?	UnidOTHR 66.6/58.5 PPS *	RF73MF	NZART	ZL1GWE
14107	6	2009	12	30<04:32>	0432-0641	PXX		?	UnidOTHR S7 * See separate comment	RF73MF	NZART	ZL1GWE
14110		2009	12	DY	HX24	J3E/L		?	UnidNON-AMATEUR STNS	RF72LQ	NZART	ZL1BAD
14110	3	2009	12	1	23:45>	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	2	08:15-08:25	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	2	23:33-23:55	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	3	23:50-00:10	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	4	08:11-09:03	J3E/U	315	CLN	UnidGroup of males, on-off	OF84wx	WIA	
14110	3	2009	12	4	23:45-00:55	J3E/U	315	CLN	UnidGroup of males, on-off	OF84wx	WIA	
14110	3	2009	12	5	23:40-00:40	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	7	23:55-00:15	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	9	08:22> <23:44—	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	10	00:20	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	14	00:08-00:33	J3E/U	315	CLN	Unid2 males	OF84wx	WIA	
14110	3	2009	12	16	00:00-00:45 <23:50-	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14110	3	2009	12	17	00:10	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14111	3	2009	12	4	00:00-00:10	J3E/U	315	CLN	Unid2 males pass coded weather msgs	OF84wx	WIA	
14111	3	2009	12	7	00:15-00:41	J3E/U	315	CLN	UnidGroup of males	OF84wx	WIA	
14111	3	2009	12	19	01:45-02:04 <22:55-	J3E/U	315	CLN	Unid2 males	OF84wx	WIA	
14111	3	2009	12	20	23:15 <09:15-	J3E/U	315	CLN	Unid2 males	OF84wx	WIA	
14111	3	2009	12	30	09:33 <23:05-	J3E/U	315	CLN	Unid2 males	OF84wx	WIA	
14114	3	2009	12	21	23:12 <09:04-	J3E/U	360	INS	Unid2 males	OF84wx	WIA	
14115.4	3	2009	12	19	09:20 <08:30-	J3E/U	360	INS	UnidGroup of males	OF84wx	WIA	
14141	3	2009	12	5	09:26 <23:15-	J3E/U	360	INS	Unid2 males 1 female	OF84wx	WIA	
14141.2	3	2009	12	9	01:00	J3E/U	315	CLN	Unid2 males 1 female	OF84wx	WIA	
14144.2	3	2009	12	9	<22:55>	J3E/U	315	CLN	Unid2 males 1 female	OF84wx	WIA	
14153.2	3	2009	12	8	<09:16>	J3E/U	360	UNI	Unid2 males-1 female, Chinese	OF84wx	WIA	

14159	4.5	2009	12	27<00:00>	0000-0530	PXX		?	OTHR * Widespread takes up 39 kHz of 14 MHz band on Unidaverage	RF73MF	NZART	ZL1GWE
14160	5	2009	12	26<00:00>	0000-0530	PXX		?	OTHR 66.6/58.5 PPS * Widespread takes up 39 kHz of 14 UnidMHz band avg	RF73MF	NZART	ZL1GWE
14160	8	2009	12	30<04:32>	0432-0641	PXX		?	UnidOTHR S7 * See separate comment	RF73MF	NZART	ZL1GWE
14171.7	3	2009	12	13	<23:20-23:40	J3E/L	315	CLN	Unid2 males work from boats	OF84wx	WIA	
14183		2009	12	30<05:15>	0515-0550	PXX		?	OTHR 36-40 PPS 3 second burst and 60 seconds between Unidbursts - Bruny?	RF73MF	NZART	ZL1GWE
14183		2009	12	31<05:15>	0515-0550	PXX		?	OTHR 36-40 PPS 3 second burst and 60 seconds between Unidbursts - Bruny?	RF73MF	NZART	ZL1GWE
14212	5	2009	12	26<00:00>	0000-0530	PXX		?	UnidOTHR 66.6/58.5 PPS	RF73MF	NZART	ZL1GWE
14212	8	2009	12	30<04:32>	0432-0641	PXX		?	UnidOTHR S7 * See separate comment	RF73MF	NZART	ZL1GWE
14213	7	2009	12	27<00:00>	0000-0530	PXX		?	OTHR * Widespread takes up 39 kHz of 14 MHz band on Unidaverage	RF73MF	NZART	ZL1GWE
14220	30	2009	12	17<02:00>	0200-0210	PXX		?	Pulse in 2 sec. Bursts, 10 secs between bursts. 75 Hz UnidSpacing in bursts	RF72LQ	NZART	ZL1BAD
14240		2009	12	28<06:15>	0615-0645	F1B	250	?	UnidEncrypted	RF72LQ	NZART	ZL1BAD
14250	3	2009	12	19	<09:12-09:18>	J3E/U	360	Unid	UnidMale-female, Chinese	OF84wx	WIA	
14250	3	2009	12	29	>09:10-09:19	J3E/U	360	Unid	UnidMale-female, Chiunese	OF84wx	WIA	
14254.5	3	2009	12	30	<08:20 >	J3E/L	360	Unid	Unid2 males chinese	OF84wx	WIA	
14265	5	2009	12	26<00:00>	0000-0530	PXX		?	UnidOTHR 66.6/58.5 PPS * OTHR * Widespread takes up 39 kHz of 14 MHz band on Unidaverage	RF73MF	NZART	ZL1GWE
14265	9	2009	12	27<00:00>	0000-0530	PXX		?	OTHR S6 * See separate comment - interspersed with UnidZC2RADAR	RF73MF	NZART	ZL1GWE
14265	8	2009	12	30<04:32>	0432-0641	PXX		?	UnidOTHR short bursts ZC2RADAR	RF73MF	NZART	ZL1GWE
14277.7	3	2009	12	1	01:13-01:16	J3E/U	360	INS	Unid2 males pass coded weather msgs	OF84wx	WIA	VK6WX
14277.7	3	2009	12	7	01:11-01:12	J3E/U	360	INS	Unid1 male calling, no response	OF84wx	WIA	
14277.7	3	2009	12	8	01:10-01:28	J3E/U	360	INS	Unid3males pass coded weather messages	OF84wx	WIA	
14277.7	3	2009	12	8	01:40-01:48	J3E/U	360	INS	UnidMale-female, passing coded weather messages	OF84wx	WIA	
14277.7	3	2009	12	9	01:03-01:14	J3E/U	360	INS	Unid2 males-1 female, pass coded messages	OF84wx	WIA	
14277.7	3	2009	12	10	01:35-01:53	J3E/U	360	INS	UnidMale -female pass coded messages	OF84wx	WIA	
14277.7	3	2009	12	11	00:35-00:40	J3E/U	360	INS	Unid2 male-1 female, pass coded messages	OF84wx	WIA	
14277.7	3	2009	12	11	01:08-01:20	J3E/U	360	INS	Unid2 males- 1 female, passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	12	01:19-01:34	J3E/U	360	INS	Unid3 males, 1 female passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	14	00:35-01:17	J3E/U	360	INS	Unid2 male, 1 female passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	15	01:48-02:00	J3E/U	360	INS	Unid3 males passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	16	00*59-00:20	J3E/U	360	INS	Unid2 males,passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	17	00:38-00:44	J3E/U	360	INS	Unid3 males passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	17	01:05-01:06	J3E/U	360	INS	Unid1 male,1 female, pass coded messages	OF84wx	WIA	
14277.7	3	2009	12	18	00:02-00:12	J3E/U	360	INS	Unid2 males passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	19	01:20-01:26	J3E/U	360	INS	Unid2 males passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	20	00:57-01:13	J3E/U	360	INS	Unid3 males passing coded messages	OF84wx	WIA	

14277.7	3	2009	12	21	01:20-01:35	J3E/U	360	INS	Unid2 males pass coded weather msgs	OF84wx	WIA	
14277.7	3	2009	12	30	00:47-00:50	J3E/U	360	INS	Unid2 males passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	30	01:07-01:08	J3E/U	360	INS	Unid2 males passing coded messages	OF84wx	WIA	
14277.7	3	2009	12	31	00:34-00:54	J3E/U	360	INS	Unid4 males, 1 female, passing coded messages	OF84wx	WIA	
14280		2009	12	2007:30	<0730>	A3E			Re/broadcast in Chinese, (VoKorea?)	OL72CH	HARTS	
14285.0	0.1	2009	12	22	0000-0030	N0N		PHL	UnidVOA IMD	QG52XI	WIA	
14304.9	3	2009	12	22	0000-0030	J3E/U		Unid	UnidORIENTAL, NOT CHINESE	QG52XI	WIA	FISHBOAT ENGINE NOISE
14305.0	0.1	2009	12	22	0000-0030	N0N		PHL	UnidVOA IMD	QG52XI	WIA	
14305.0	0.1	2009	12	22	0000-0030	N0N		PHL	UnidVOA IMD	QG52XI	WIA	
14316	8	2009	12	30<04:32>	0432-0641	PXX		?	UnidOTHR S8 * See Separate comment	RF73MF	NZART	ZL1GWE
14317	8	2009	12	27<00:00>	0000-0530	PXX		?	OTHR * Widespread takes up 39 kHz of 14 MHz band on	RF73MF	NZART	ZL1GWE
14317.5	3	2009	12	20	08:29	J3E/U	360	Unid	UnidMale-female, Chinese	OF84wx	WIA	
14318	5	2009	12	26<00:00>	0000-0530	PXX		?	UnidOTHR 66.6/58.5 PPS *	RF73MF	NZART	ZL1GWE
14370	5	2009	12	26<00:00>	0000-0530	PXX		?	UnidOTHR 66.6/58.5 PPS *	RF73MF	NZART	ZL1GWE
14370	8	2009	12	30<04:32>	0432-0641	PXX		?	UnidOTHR S5 * See Separate comment	RF73MF	NZART	ZL1GWE
14371	8	2009	12	27<00:00>	0000-0530	PXX		?	OTHR * Widespread takes up 39 kHz of 14 MHz band on	RF73MF	NZART	ZL1GWE
18071		2009	12	17<18:20>	1820	J3E/L		?	UnidLoud Engine noises in background Asians	RF80HL	NZART	ZL2IFB
18076	15	2009	12	31<10:28>	1028	PXX		CHN	UnidOTHR S9+10 Peaks at 270 or 90 on dipole 50 PPS	RF80HL	NZART	ZL2IFB
18093.37	11	2009	12	31<06:05>	0605-0611	PXX		?	Unid OTHR gone before could capture sample for analysis	RF73MF	NZART	ZL1GWE
18094		2009	12	26<06:00>	0600-0614	PXX		?	UnidOTHR Similar to OTHR 66.6 PPS	RF73MF	NZART	ZL1GWE
18095	4.5	2009	12	13<03:57>	0357	PXX		?	UnidOTHR S1 12 PPS	RF73MF	NZART	ZL1GWE
18096	8	2009	12	26<06:09>	0609	PXX		?	UnidOTHR S4	RF73MF	NZART	ZL1GWE
18111		2009	12	31<10:28>	1028	PXX		?	UnidOTHR S9 Peaks at 270 or 90 on dipole	RF80HL	NZART	ZL2IFB
20995	10	2009	12	06<01:17>	0117	N0N		?	UnidS7 Pulsing Carrier	RF73MF	NZART	ZL1GWE
21000.0	3	2009	12	19	0945	J3E/U		Unid	UnidDAILY, ORIENTAL, NOT CHINESE	QG52XI	WIA	ENGINE NOISE
21000.3		2009	12	17<08:15>	0815-0820	J3E/U		?	UnidAsian Voices non-Amateurs	RF80HL	NZART	ZL2IFB
21012	10	2009	12	06<01:18>	0118	N0N		?	UnidS7 Pulsing Carrier	RF73MF	NZART	ZL1GWE
21044	10	2009	12	06<01:18>	0118	N0N		?	UnidS7 Pulsing Carrier	RF73MF	NZART	ZL1GWE
21060	9	2009	12	06<01:19>	0119	N0N		?	UnidS7 Pulsing Carrier	RF73MF	NZART	ZL1GWE
21077	10	2009	12	06<01:20>	0120	N0N		?	UnidS7 Pulsing Carrier	RF73MF	NZART	ZL1GWE
24859		2009	12	06<00:06>	0006	F3E		?	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
24863	6	2009	12	06<02:05>	01:27	F3E		?	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
24875		2009	12	06<00:20>	0020	F3E		?	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
24891		2009	12	06<00:21>	0021	F3E		?	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
24915.0	6	2009	12	26	0825	A3E		Unid	UnidTAGALOG OR BAHASA, CB LIKE	QG52XI	WIA	VK4TJ
24925.0	6	2009	12	26	0825	A3E		Unid	UnidTAGALOG OR BAHASA, CB LIKE	QG52XI	WIA	
28015		2009	12	20<05:55>	0555	A3A		CHN	Unidnon Amateurs - Chinese	RF80HL	NZART	ZL2IFB
28016		2009	12	05<23:57>	2357	F3E		CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28033		2009	12	05<23:57>	2357	F3E		CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28049		2009	12	05<23:57>	2357	F3E		CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE

28066	2009	12	05<23:58>	2358	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28083	2009	12	05<23:20>	2320	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28083	2009	12	05<23:41>	2341	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28099	2009	12	05<23:56>	2356	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28114	2009	12	24<04:05>	0405-0507	F3E	CHN	UnidNon Amateurs no motor noise	RF73MF	NZART	ZL1GWE
28116	2009	12	05<23:58>	2358	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28123	2009	12	20<00:44>	0044-0130	F3E	CHN	Unidnon Amateurs - Chinese	RF73MF	NZART	ZL1GWE
28135	2009	12	05<23:58>	2358	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28150	2009	12	05<23:58>	2358	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28150	2009	12	24<04:05>	0405-0507	F3E	CHN	UnidNon Amateurs - no motor noise	RF73MF	NZART	ZL1GWE
28165	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28165	2009	12	24<04:05>	0405-0507	F3E	CHN	UnidNon Amateurs - no motor noise	RF73MF	NZART	ZL1GWE
28185	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28190	2009	12	24<04:05>	0405-0507	F3E	CHN	UnidNon Amateurs - no motor noise	RF73MF	NZART	ZL1GWE
28200	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28211	2009	12	24<04:05>	0405-0507	F3E	CHN	UnidNon Amateurs - no motor noise	RF73MF	NZART	ZL1GWE
28216	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28230	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28248	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28264	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28275	2009	12	24<04:05>	0405	F3E	CHN	UnidNon Amateurs - no motor noise	RF80HL	NZART	ZL2IFB
28275	2009	12	24<04:05>	0405	F3E	CHN	UnidNon Amateurs - no motor noise	RF73MF	NZART	ZL1GWE
28297	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28313	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28319	2009	12	05<22:44>	2244	F3E	CHN	UnidS7 Non Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28326	2009	12	05<22:58>	2254	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28327	2009	12	05<22:54>	2254	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28330	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28346	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28350.0	6	2009	12	22	A3E	Unid	UnidTAGALOG OR BAHASA, CB LIKE	QG52XI	WIA	
28363	2009	12	05<23:59>	2359	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28379	2009	12	06<00:00>	0000	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28388	2009	12	06<03:44>	0344	F3E	CHN	UnidNon Amateurs Motor Noise - Fishing boats	RF73MF	NZART	ZL1GWE
28436	2009	12	24<04:05>	0405-0507	F3E	CHN	UnidNon Amateurs - no motor noise	RF73MF	NZART	ZL1GWE