



# MX0WRC

Workington and District Amateur Radio Club

## UKAC Contest

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G4VFL

# Agenda

- What, Where and When
- The contest
  - Station
  - Contacts
- Results
- Q & A

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# What, Where and When

- This is one of the good things the RSGB organises
  - Every Tuesday night a VHF or UHF contest
  - Minimum number of sections (3 in practice)
  - Not too long (2.5hr)
- Where
  - UK
  - Home or portable

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# Outline

- Tuesday nights (20:00 – 22:30 local)
- VHF (50MHz to 1300MHz)
  - 1<sup>st</sup> Tue            144MHz
  - 2<sup>nd</sup> Tue            432MHz
  - 3<sup>rd</sup> Tue            1.3GHz
  - 4<sup>th</sup> Tue            50MHz
  - 5<sup>th</sup> Tue            70MHz            (4 times per annum)
- UKAC is probably the biggest contest for VHF/UHF rather than the 24hour weekend contests.

# What can be achieved ?

- VHF isn't all local FM
  - 2m Oct 2012 from Corney Fell *typical*
  - 6m May 2013 from Corney Fell *and I missed the Caribbean*



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# How do I get going ?

“The finish is all in the preparation”

- Plan
  - Site
  - Equipment
  - Comfort
- Review after each contest and produce a better plan

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# Home or Portable

- Home
  - Comfort
  - No setup time
- Portable
  - 10% Winter and 25% Summer of contest stations
  - Hill top
    - Good site
  - Car
    - More power and comfort

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# Station

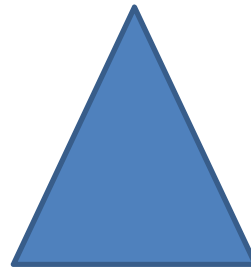
- You do not need a fantastic rig
- **You do need a good location**
- The following helps:-
  - Decent antenna
  - 4 – 8 metres of pole
  - Low loss coax
  - Shelter
  - Power
    - Battery
    - Rig RF output

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# What is a good site ?

- Height
  - Mast
- Take off
  - Obstacles to the majority of stations
  - Visibility of squares
  - No trees
- Proximity to other stations
- Freedom from noise
  - As you sweep the antenna round you can hear the noise change.

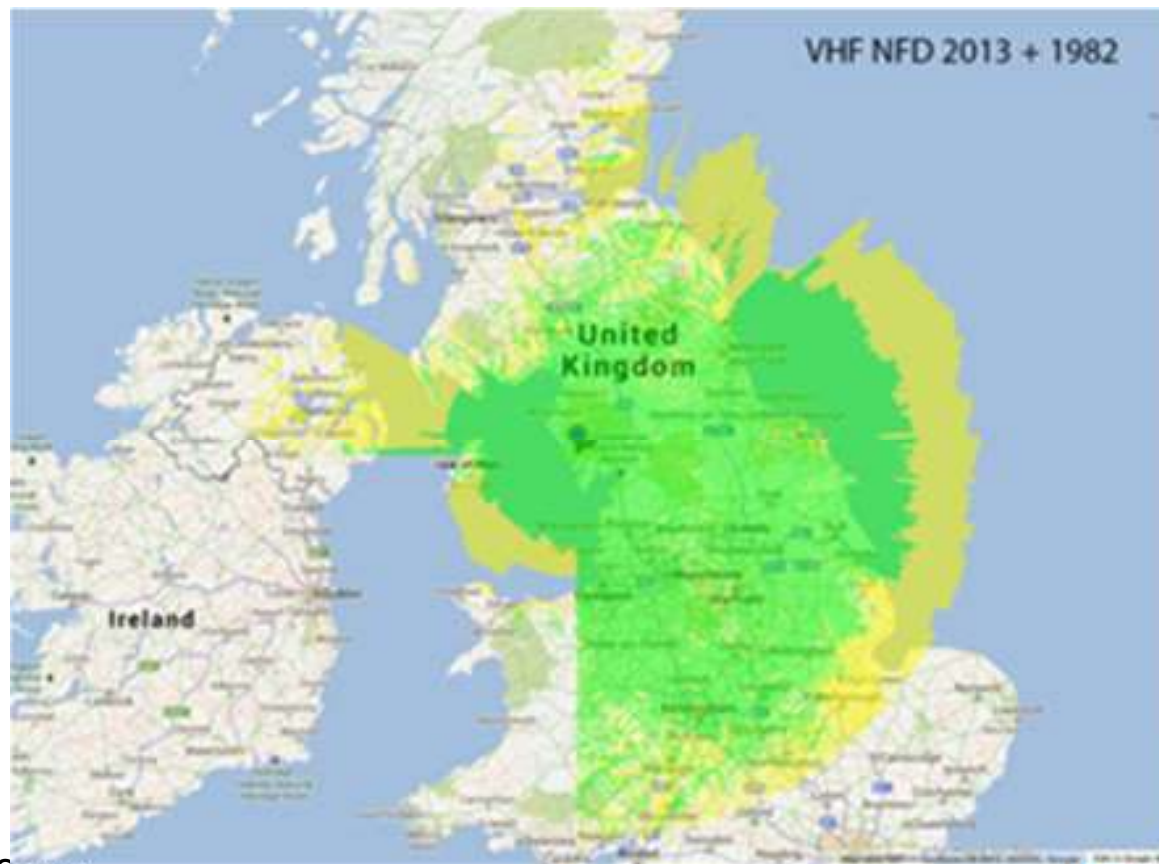


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# Coverage Prediction

<http://www.ve2dbe.com/english1.html>

Use the online version it is easier to setup



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# My Stations at the start

I am setup for portable operation with modest setups (*well the rig may not be too modest*)

– 2m

- IC-7000
- 5 Ele Yagi at 3.5m *this is the length of a electrical conduit*

– 70cm

- IC-7000
- 9 Ele Yagi at 3.5m

– 6m

- IC-7000
- HB9CV 3.5m

– Power 12v 7AH SLAB *but soon moved to 2 SLABs*



# Power v QRP

- Low Power (QRP)
  - You can get to more sites because it is backpack portable e.g. Black Combe or a bit lower !
  - Operate it the low power section
  - Search and Pounce
- Power (QRO)
  - Better for DX
  - Call CQ (Running the frequency)

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# My Stations currently

- 2m
  - IC-7000 + PA for 100W
  - 9 Ele Yagi at 5m
- 70cm
  - IC-7000
  - Linear 100w but delivers 70W at 12v
  - 19 Ele Yagi at 5m
- 6m
  - IC-7000
  - 6 Elements G4CQM at 5m
- 23cm
  - Apache Labs ANAN-10E
  - Khune Transverter (10W)
  - 24 Elements G4CQM at 5m
- 4m
  - Apache Labs ANAN-10E
  - OZ2M Transverter and Linear 25W
  - 7 Elements G4CQM at 5m
  
- COAX is Westflex 103 with N types at the antenna because they self seal.
- Power 12V 20AH LiPoFe4

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# My Stations currently



# Antennas (Technical)

- Horizontal polarisation
- Multi element
  - 50MHz and 70MHz
    - 2 - 7 elements (6-7 ele)
  - 144MHz
    - 5 – 12 elements (9 ele)
  - 432MHz
    - 9 – 25 elements (19 ele)
  - 1296MHz
    - 24 – 60 elements (24 ele)
- Rotator
  - Manual (handle)
  - Electric (heavy at the mast head & needs power)

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# Antennas (Mast)

- Not fishing pole
- Stiff
  - Electrical conduit (25mm and 20mm will telescope)
    - Cheap, strong BUT needs holes drilled for pins to keep in alignment)
  - 50mm tube
    - Joints
    - 5m length will go on roof bars
- Fixings
  - Trig points
  - Fence posts
  - Car roof bars and adaptor with bungee cords (photo inc)
  - Guys (4 point)

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# Antennas (Practical)

- Easy to setup (*I have yet to achieve the ideal*)
  - NO Spanners and removing nuts/bolts. *They get dropped into the grass and disappear forever.*
  - Use wing nuts, socket head bolts and a driver.
  - Pin the antenna to the mast it is better than friction in a clamp.
  - Use Gaffa tape, PVC tape is brittle in the cold.
  - Avoid guys and pegs for masts, *trig points are ideal followed by fence posts and roof racks.*
  - Can you setup AND DISMANTLE with gloves on in freezing conditions, pouring rain and wind ?

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# Modulation

- **It is all SSB really**
- Sometimes CW on 4m and 6m
- No data modes, but these are permitted
- No FM, its not forbidden but it doesn't work well for DX. Some times there are some local QSOs on FM for club members who don't have SSB.

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# Power

- Batteries *this is what I normally use*
  - Quiet
  - Weight
    - LiPo (6AH for the 4m) 0.6kg
    - 20AH LiPoFe4 3kg Approx This holds the voltage at about 12.5 for most of the contest.
    - 60AH 19kg The voltage falls in the contest and will cause the rig to drop out.
- Generator
  - Very Heavy 40 – 60kg
  - Last for ever, if you have enough fuel
  - Will it start ?
  - Lots of power for lights
  - Problems with high power SSB will stall the gen so you sometimes need about 1kw constant load, in addition to the Linear.
- Car battery
  - Not such a good idea if you want to get home !

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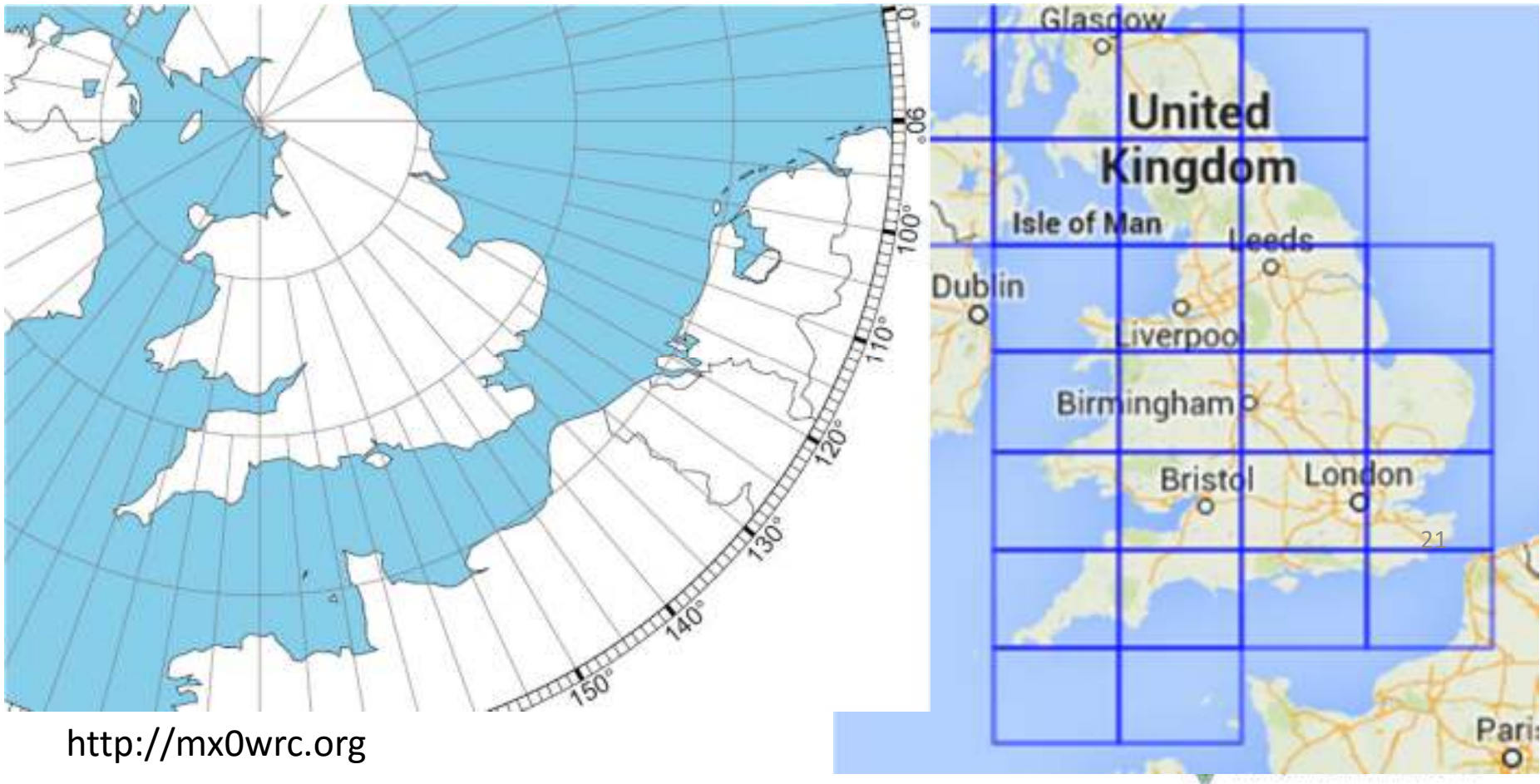
# Shelter

- You do need it ! Most of the time.
  - Stops things being blown about
  - Keeps you warm<sup>*ish*</sup>
  - You need to be able to sit and turn the antenna
- Car v Tent
  - Car comfortable but location not flexible
  - Tent more flexible but has to be carried.
- Chair
  - You could be there for some time !

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# Grid and Azimuth Maps

Compass, grid map and azimuth heading plan <http://ns6t.net>



# Logging

- Paper v Computer (There is no right or wrong answer)
  - Paper
    - This is what I use
      - Simple
      - Can be filled in any order
      - You can record failed contacts
      - Requires typed in later
        - » Introduces errors
      - No dup check, unless you run a dup sheet but you cannot do this on your own.
      - No previous log
  - Computer
    - It is nice if you have a logger
      - Gives lots of assistance
      - Need a table
      - Can die on you
      - More to carry
      - You can file the result really quick
      - You don't have to remember so much

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# Logging

- Paper
  - Call and locator at the top
  - Wide for calls and locator
  - Mult check list at the bottom
  - Handout a sample
- Use a pencil, it works on wet paper !
  - Better take 3 and make sure they are sharp

Time	Call <b>G4VFL/P</b>	Sent RST / SN	Rx RST / SN	Loc <b>IO84ih</b>

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IO70	IO71	IO72	IO73	IO74	IO75	IO76	IO77		IO54	
IO80	IO81	IO82	IO83	IO84	IO85	IO86	IO87		IO64	IO65
IO90	IO91	IO92	IO93	IO94	IO95		IO97		IN79	IN89
JO00	JO01	JO02	JO03							

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# You also need

- Head torch
  - 2 off or Spare batteries
- Warm clothes
  - There is a lot of being still
- Thermal break to the ground (cushion) if you don't take a chair
- Waterproofs, even with the car you will have to put up and take down the antenna.

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# Contact plan

This is not definitive, but it is worth having a plan in mind

- S & P for 45 min
  - Get mults
- Call CQ (Running) for 1 hour on prime heading
  - $150 \pm 30$ deg to point to UK centres of population
- S&P / CQ
- Clean up mults or give mults with big guns for last 20min

OR

- Be brave and Run for 2 hours
  - then S&P for missing mults (2 VFO ?)

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# Bands

- This is SSB so:
  - 6m
    - 50.130 – 50.300MHz
  - 4m
    - 70.050 – 70.250MHz but sometimes up to 70.300MHz
  - 2m
    - 144.150 – 144.399MHz but sometimes down to 144.100 MHz
  - 23cm
    - 1296.100 – 1296.300
  - 70cm
    - 432.100 – 432.400MHz mainly 432.1 – 432.3MHz
- For all the bands it is usual to start hunting around nnn.200

# Contest Exchange

- Call sign
- Signal Reports
- Serial Numbers
  - Starting at 001
- Maidenhead Locator e.g. IO84ih
- The order is important
  - Their call, Sig Report, Serial No, Location
    - This is the order the logger expects it
    - G1KAR/P .... 59088 .....IO70IM

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# Repeat or not to repeat ?

- Once or twice ?
  - Once if you are sure they will get it, first time.
  - Twice most of the time
    - Weak signal
    - Not experienced contest station
    - It avoids being asked for a repeat so can be quicker
    - Signal Report and serial No
      - Locator only once if it is a pileup because they will get it from an existing contact.

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# Q code and Roger use

- QRZ
  - On the completion of a contact, ideally to pick up anyone else who is waiting and may have called in the pileup.
    - QRZ G4VFL/P
      - Then listen
    - Please put the call in, don't say QRZ without a call
- QSL
  - Does not mean do you want a card
    - It means "Have you got everything ?"
      - You respond QSL100%
      - You give the details 59013 59013 IO84ih IO84ih QSL ?
- QSB, QRM etc
- ROGER is used for Amateur radio for YES, even though its meaning is ambiguous. To me it means "Yes, I have received a transmission".
  - Do you have my details ?
    - Affirmative or Affirm
    - Negative, locator again please

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# Exchange Ideal

- CQ CQ CQ Contest G4VFL/P
  - G7KSE
- G7KSE you are 59023 59023 in IO84IH IO84IH QSL ?
  - QSL 100% you are 59008 59008 in IO84FG IO84FG QSL ?
- QSL 100% Many thanks for the contact, best of luck in the contest. QRZ contest G4VFL/P
  
- Give your call, it saves being asked for it.
- If you call CQ 5 times and get no response, think is there another action ?
  - Later in the contest there may be no better action.
- Insert Audio Clip, not so easy

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# Exchange a bit less than Ideal

- CQ CQ CQ G4VFL/P
  - G7KSE,G3MEH,2E0ABJ
- G7K go ahead (*This reduces the pileup, or station ending in Echo*)
  - G7KSE
- G7KSE you are 59023 59023 in IO84IH QSL
  - QSL 100% you are 59008 59008 in IO84FG IO84FG
- 73, QRZ G4VFL/P

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# Exchange a rare square and new mult

- CQ CQ CQ G4VFL/P
  - GM7KR
- GM7KR you are 59023 59023 in IO84IH QSL
  - QSL 100% you are 59008 59008 in IP90KD IP90KD
- GM7KR G4VFL/P I read back 59008 IP90KD is that a Roger ?
  - Roger Roger
- Many thanks 73, QRZ G4VFL/P

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# Search and Pounce

- Listen
  - You can get
    - Call
    - Loc
    - Expected Serial No before you even call
  - Give your call once
    - Listen for your call or
      - Portable station go ahead
    - If you don't get through in three then note the freq and comeback later. Unless it is real DX or rare square and you might have to be more persistent.
  - If things are quite and the station is weak give your call and locator e.g. G4VFL/P in IO84
    - With some luck they will turn the beam and it will be easy

# Problems with contacts

- Weak signal from a IO83
  - *Lot of effort for few points !*
- Chat when busy
  - *Chat is OK when it is a bit quite but best kept to after the contest*
- Wanting other info when busy
  - NGR for WAB
  - SOTA ref
  - Name
- Within 2kHz of a strong station
- QSB
- Wanting to try 3 different Microphones etc.

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# Scoring

- Radial score 1point / km
- Multipliers based on grids e.g. IO84
  - UK grids count for 2 mults
  - All others count for 1 mult
  - They are important so need to be logged correctly
    - Read back the whole of the report
- So the total points are  $\text{km} * \text{mults}$ 
  - e.g.  $2134 \text{ km} * (6 \text{ Uk squares} + 1 \text{ France}) 13 = 27442 \text{ point}$
- Sections
  - Low power <10W
  - Restricted  $10 < 100\text{W}$
  - Open  $>100\text{W}$

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# Normalisation

- This takes place by the adjudication
  - The logs are checked to see if the entries are valid or have errors.
    - Errors are listed as UBNs on the contest site
  - The scores are normalised with 1000 being the best and the lesser logs getting a proportion based on their position in the league table.
- See the results slide later

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# Club involvement

- Individual scores
- Club Scores
  - The members scores are added up

# I use the recommended MINOS

The screenshot displays the Minos Contest Logger application. At the top, there is a menu bar with 'File', 'Edit', 'Search', 'Tools', and 'Help'. Below the menu is a grid of file names for various contests, with 'G4VFL\_2013Jun05\_50 MHz.Minos' highlighted in blue. The main area is a table of contest entries with columns for UTC, Callsign, RepTx, SnTx, RepRx, SnRx, Loc, brg, dist, Exchange, and Comments. The entry for 'G4VFL/P 060 IO84IG' is highlighted in green. Below the table is a control panel with a 'Catch-up (Post Entry)' button, a dropdown menu set to 'G4VFL/P', and a '50 MHz' frequency selector. The control panel also includes fields for 'Callsign (F2)', 'RS(T)(F3)', 'Serial TX', 'Serial RX', and 'Loc (F5)', along with checkboxes for 'Hide', 'JSE', 'AIA', 'Non Scoring', and 'Deleted'. A 'Comments' field with 'Log', 'Force', and 'Cancel' buttons is also present. At the bottom, a status bar shows 'Score: Qso: 59; 9774 pts (15 countries); (0 districts); 13 locations = 127023' and the system tray with the date '26/06/2013' and time '13:41'.

UTC	Callsign	RepTx	SnTx	RepRx	SnRx	Loc	brg	dist	Exchange	Comments
20:19	HLZRP	59	023	58	019	JO83PQ	149°	76		
20:20	OHUV	54	024	54	058	JO82AF	134°	318		
20:21	GRTMV	54	025	55	037	JO60CO	134°	332		
20:21	GOKTQ	57	026	59	006	JO83WH	137°	114		
20:22	G3KAN	57	027	57	011	JO83PL	146°	91		
20:22	G3TDH	59	028	59	028	JO83WI	143°	128		
20:23	G7PCC	53	029	52	012	JO92KW	135°	208		
20:24	H3RNX	52	030	57	010	JO83TO	141°	96		
20:26	ZE0CRD	52	031	55	021	JO83KI	174°	103		
20:28	H0XSD	59	032	59	004	JO84GN	142°	35		
20:28	H6EPW	59	033	59	005	JO84GN	142°	35		
20:29	G7KSE	59	034	59	003	JO84EL	117°	32		
20:30	H0SOA	57	035	56	007	JO83QH	154°	103		
20:31	ZE0XIF	54	036	57	013	JO83PL	146°	82		
20:32	G14CPH	59	037	59	002	JO74EP	286°	137		
20:36	G14SNA	59	038	59	007	IO84XM	280°	181		
20:41	G16ATZ	59	039	57	010	JO74AJ	279°	174		
20:42	G3MEH	59	040	57	009	JO91QS	146°	331		
20:45	V4RRL	63	041	61	063	VY4RRL	120°	133		

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# Submit your logs

- Software MINOS
  - Check for
    - /P
    - V U mix
    - O O mix
  - Produce a .edi file
- [www.rsgbcc.org/vhf](http://www.rsgbcc.org/vhf)
  - Entering a Contest
  - Upload
    - Select the contest
      - Section
      - Workington & DARC
    - Click the Claimed Score so it is published.
    - You will get a link to your map of contacts.

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# Claimed Scores

- You can see how everyone else got on
  - And correct the log for a missed /P, maybe.
- From IO84 you can be another stations best DX.

25 Jun (82 scores)

Station	Callign	Lat	QSOs	Points	F/Qty	Mults	Total Points	Best DX	Dist	Power	Ant	Comments	Email
AO	G4SNA	IO84	108	33,292	321	18	645,848	G1KAR/P	601	300	7 Ele Home Brew		<a href="mailto:g4sna@bt.com">g4sna@bt.com</a>
AO	G4GBE	IO84	114	22,873	203	20	429,486	G4BCC	493	400	Eagle 3 ele hybrid 50% 3.5Hz Yagi	Good trap condn. no operatic s from IO84	<a href="mailto:g4gbe@bt.com">g4gbe@bt.com</a>
AR	M13MHZ	IO83	122	20,384	187	20	487,880	E1-04CLA	330	100	8 ele	Great activity highlight by high levels of QRN & QRM. very NOISE! a warning of the above. 10z SpE here! The all points = SPALDING & DARS	<a href="mailto:m13mhz@bt.com">m13mhz@bt.com</a>
AR	G3PTE/P	IO82	130	20,828	141	18	376,650	E18FU	398	100	6-6ele Homebrew		<a href="mailto:g3pte@bt.com">g3pte@bt.com</a>
AO	M0WLF	IO81	108	18,733	173	17	318,481	G4SNA	414	400	7 ELE	Middle	<a href="mailto:m0wlf@bt.com">m0wlf@bt.com</a>
AO	G4EDX	IO81	128	18,719	154	16	315,304	G4SNA	432	400	SL		<a href="mailto:g4edx@bt.com">g4edx@bt.com</a>
AR	G0WZAR/P	IO83	107	15,937	141	18	270,648	G1KAR/P	387	100	2 ele OMT	167 contacts and no rain for once. Thanks to all. One more contact than G4EDCA, that'll save me a sleep. no doubt. 13 Days	<a href="mailto:g0wzar@bt.com">g0wzar@bt.com</a>
AR	G7RAU	IO80	90	16,447	133	15	246,705	G4SNA	331	80	4el Eagle	Local rain up a little. No s from here but all good.	<a href="mailto:g7rau@bt.com">g7rau@bt.com</a>
AR	M0DVP	IO83	82	12,128	132	18	218,214	E18FU	408	100	8Y	Good speed of activity this eve and could be used up a little for some UK work. Challenging to flag a new trap at times.	<a href="mailto:m0dvp@bt.com">m0dvp@bt.com</a>
AO	G4DOK	IO81	108	13,387	128	18	214,832	G4SNA	478	200	2 x 8 el Yagis	Conditions seemed good to N & SW. High noise level at times, sorry to those I missed.	<a href="mailto:g4dok@bt.com">g4dok@bt.com</a>
AR	G1KAR/P	IO80	74	13,190	184	13	176,870	G4SNA	601	100	8 ele GWA Yagi (G4BCC)	Good to estimate 2000, shame we didn't work our own square. At least no local QRM!	<a href="mailto:g1kar@bt.com">g1kar@bt.com</a>
AO	G4WJIS	IO81	66	12,687	127	14	175,838	G4SNA	471	400	3 el Yagi		<a href="mailto:g4wjis@bt.com">g4wjis@bt.com</a>
AR	G4LOE/P	IO81	81	10,018	124	18	180,788	G4SNA	398	100	3 Ele Tanna	Quite busy as QRM worked as hard.	<a href="mailto:g4loe@bt.com">g4loe@bt.com</a>
AR	G4VCA	IO83	88	8,313	140	13	142,728	G4SNA	388	100w	4xOHYagi		<a href="mailto:g4vca@bt.com">g4vca@bt.com</a>
AR	G4W2V2	IO82	76	8,883	127	14	135,362	G3YDA	298	100	R3C 4-4 Dual	**TWCG*	<a href="mailto:g4w2v2@bt.com">g4w2v2@bt.com</a>
AX	G4J3E	IO83	48	8,328	208	14	134,240	M0WLF	413	400	4 ele Yagi	QRM quite good, sorry to those who didn't make it due to QRM earlier. TWCG	<a href="mailto:g4j3e@bt.com">g4j3e@bt.com</a>
AL	G4W3W/P	IO82	88	8,111	132	14	127,334	G4SNA	381	10	3el Tanna	**TWCG** Very busy tonight and nice team evening for a change	<a href="mailto:g4w3w@bt.com">g4w3w@bt.com</a>
AR	G4VLP	IO84	59	8,771	148	13	127,023	G7RAU	417	70	4ele G4CGM	TK: Pete and CAG. 3 Day thanks for the contacts from Black Cambs, the longer nights are coming so I may be back down on the road again soon.	<a href="mailto:g4vlp@bt.com">g4vlp@bt.com</a>
AL	G4VPO	IO81	86	8,328	128	14	116,592	G4SNA	343	10	3 ele LFA	QRM DELIBERATE JAMMING. MADE IT HARD FOR US. G4LOE ON AT TROND TO SOUTH AND NORTH TOSGHT WHO. TNX ALL.	<a href="mailto:g4vpo@bt.com">g4vpo@bt.com</a>

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# Is this a mindless exercise ?

- Could be ?
- Study about finding a good site
  - Which ways do you point ?
- Propagation
  - **Site**
- Building a lightweight simple portable station
  - **Reliability** is key
- Getting the logging right
- Building a base of
  - Who is looking for you (You are their mult)
  - Who are you looking for (Mults)
- Call CQ “Running” or “Search & Pounce”

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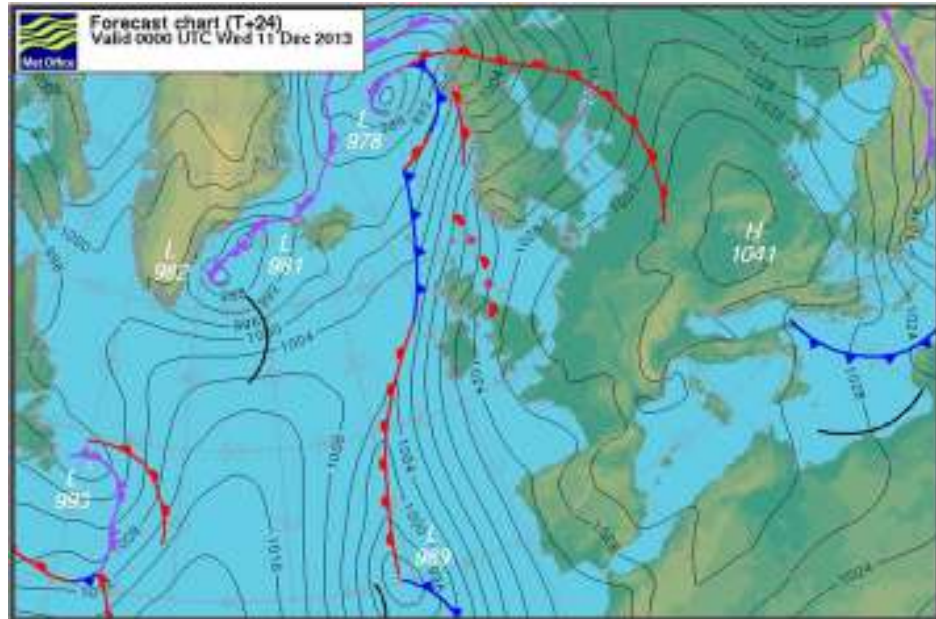
# Propagation

- My average from IO84
  - Adjacent squares are easy plus a few low population
    - IO83, IO74, IO85, IO93, IO64, IO94
  - You should with a little luck get
    - IO82, JO02, IO92, IO91, IO84, IO92, IO72, IO75
  - More luck is required for
    - IO90, JO01, IO80, IO81, JO03, IO86
  - Over the moon for
    - IO95, JO00, IO70, IO54, or any other UK square
  - Still cannot believe EA8TX *Play audio clip*



<http://mx0wrc.org>

# Propagation 70cm



The southern stations did well to Europe

I didn't work JO02 or IO91 !

But I could hear PI7CIS the Dutch beacon

Hepburn forecast if you are really keen

[http://www.dxinfocentre.com/tropo\\_nwe.html](http://www.dxinfocentre.com/tropo_nwe.html)

<http://mx0wrc.org>

# No propagation !



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# Pictures



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# The Big Guns in a square

- IO64 GI4SNA (David)
- IO85 GM4JR (Andy)
- IO80 G4TSW
- IO81 M0WYB, G0LGS
- IO82 M0VXX
- IO74 GD8EXI
- IO90 G7RAU (Dave)
- IO91 G4ODQ
- IO92 M1MHZ (Bob)
- IO93 G3VCA
- IO94 G4FZN/P (Chris)
- JO00 G4KAR/P

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- This list changes over time so look at the claimed scored for the previous couple of months.

<http://mx0wrc.org>

# Results

- A formula is applied to normalise the score with 1000 points is the best and the remaining points are based on position on the night.
- Three tables
  - Band
  - Club
  - UKAC
- How did you do ?
  - UBN
    - Log Error
    - Paper to PC error

<http://mx0wrc.org>

This contest is part of the following contest series [Overall UKAC](#)

[Show QSO Analysis](#)

[Show Locator Analysis](#)

Click on icon in Pos column to download certificates

## Overall UKAC 2013

Click [here](#) for Individual Scores

Club Scores								
Pos	Club	50 MHz	70 MHz	144 MHz	432 MHz	1296 MHz	SHF	Total
1	Travelling Wave CG	1000	1000	1000	1000	1000	29	5029
2	Bolton Wireless Club	494	553	602	749	757	1000	4155
3	Spalding & DARS	637	503	518	600	743	152	3153
4	Camb-Hams	355	366	358	355	311	107	1852
5	Trowbridge & DARC	252	38	425	231	181	467	1594
6	Harwell ARS	141	194	239	45	431	480	1530
7	RAF Waddington ARC	431	228	276	314	153		1402
8	Tall Trees CG	512	127	218	242	18		1117
9	Ossett ARO	331	216	163	169	190		1069
10	Wirral & DARC	205	147	153	203	270	74	1052
11	Northern Fells CG	6	309	138	85	276	96	910
12	Chorley & DARS	359	119	169	224	17		888
13	Chesterham ARA	110	3	61	81	157	354	766
14	Milton Keynes ARS	196	111	104	151	150		712
15	Wythall RC	216	251	125	95			687
16	Chesham & DARS	181	120	194	145	13		653
17	Medway ARTS	132		140	178	60		510
18	Worksop ARS	130	36	121	135	68		490
19	Telford & DARS	82	159	60	44	28	68	441
20	Cray Valley RS	89	109	91	145			434
21	Southport & DARC	145	37	108	114			404
22	South Birmingham RS			29	66	197	102	394
22	Newbury & DARS	86	97	59	73	79		394
24	Workington & DARC	95	128	80	65			368
25	West Kent ARS	116	112	70	37	14		349
26	Bittern DX Group	101		131	107	7		346
27	Spenn Valley ARS	95	97	56	57	32		337

# Where do I come ?

- If I am in the top quartile that is OK.
  - With /P I get the site advantage
- If I ever get in the top 10% I would be ecstatic !
- I am much happier to give points from different locations.
  - Where will G4VFL/P be next !
- It is nice for me seeing my call as someone else's best DX.
- It's nice to see the Club up there with the others for the rest of the country.
  - And better to see some other from the club listed.

Remember this is supposed to be fun !<sup>48</sup>



# Questions and Opinions

- I don't claim to have it all cracked, so opinions are welcome.
- Here is a video of Milton Keynes ARC  
<https://www.youtube.com/watch?v=WSbXvMreNrs>
- Bolton club out portable  
<https://www.youtube.com/watch?v=iFODYHfpW8k>

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# “See what you can do !”

- Any 6/2m rig capable of SSB
    - Most HF rigs have 6m.
  - A length of steel conduit £5
  - A Yagi
    - 2m Yagi (9 ele Tonna) £85 (could be less)
    - 6m HB9CV
  - A SLAB(s) £20
  - A bit of Coax and connectors £15
  - Site £free
- *Less than a couple of tanks of diesel*

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Thank you

Have a go at UKAC Contest  
remember  
“It’s good to talk !”

Andrew Holland

G4VFL