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The 144 MHz EME NewsLetter

Issue 4/2005
9 April 2005

Editorial

The new era of EME?!

The release of WSJT 4.9 a few weeks ago with the newly implemented “deep search algorithm” meant once again a quantum leap for the EME traffic. Another 4 dB increased sensitivity which come with this new version result in lower technical requirements for EME capable stations on 144 MHz. With only 100 watts out and 13 dBd antenna gain — resulting in 2 kW ERP — EME traffic is now possible with most of the 4 yagi stations. Increasing the output by another 3 dB to 4 kW ERP, experience shows that that kind of equipment can now be compared to a standard 4 yagi CW EME system. Consequently, making an EME dxpedition has become less stressful re equipment and shipping. This results in — often unexpectedly — new DXCCs popping up.

In this issue of the newsletter you’ll read reports on the recent V51/ZS5Y and KC4/W1MRQ activities — the latter is still continuing until the end of August — and also on the VK0MT activity from Macquarie Island. EME has definitely left the area of exotics and now comes as a standard propagation for 144 MHz radio traffic.

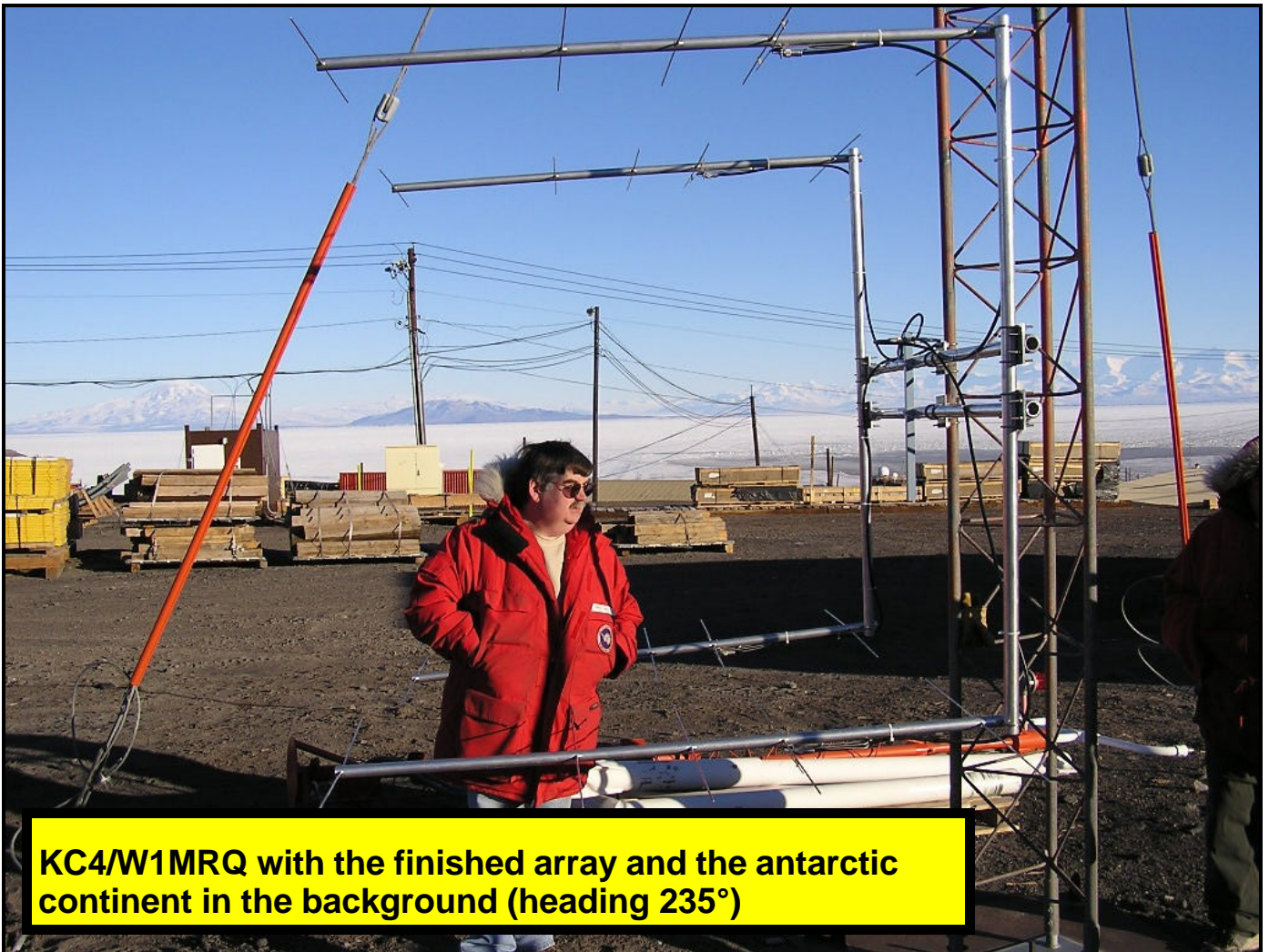
Only, there is a problem. And that is not the ideologic discussions on moon-net re how to treat digital mode QSOs against grid/DXCC achievements in analog modes. Of-



V51/ZS5Y (JG82JA)

ten the impression is that some people feel like needing to comment without having ever tried the WSJT modes on EME. No, it’s different: There are so many stations EME capable but they don’t know or be-

lieve. The technical specifications now allow every meteorscatter capable station to successfully work EME. Talk to your ham firends, convince them to try it out. It will work!!!



KC4/W1MRQ with the finished array and the antarctic continent in the background (heading 235°)

DXPeditions

V51/ZS5Y working in Namibia

Leaving for a business trip to Namibia at the end of February, Derek packed a small portable station in his car and traveled 2,000 kilometers from his home in KF59JR to Rosh Pinah in North-West Namibia (JG82JA). With a 2M12 yagi (13 dBd), and about 150 watts output he wanted to try some EME on 2m during his leisure time. Given the circumstances this didn't look very promising at first sight: The moon was relatively close to Earth but traveled in front of a very noisy area of space. Though, when Derek became QRV on March 5th the first QSO was a very easy one. Not surprisingly he completed with Mr Big (RN6BN) with his powerful array of 32 yagis. But just the next station worked was a "normal" one with F6FHP with his 4 long yagis.

With the progress of the next week — and lower background noise — the activities became more and more successful. Derek's efforts definitely paid off — and also his many spent hours at the rig with no response and particularly the sacrificed lunch breaks during which he traveled back from his work to the guest house to run EME skeds. Until March 11th 9 more QSOs were logged. And like so often, Joop, PA0JMV, was the smallest station worked.

Derek reports complete QSOs with the following stations: RN6BN, F6FHP, SM7BAE, ON4IQ, S52LM, W5UN, KB8RQ, K1CA, RA3AQ, DF2ZC and PA0JMV. Many of these stations sure will celebrate their countries first QSO with Namibia on 144 MHz.

At not doubt, the biggest handicap was the small power at V51/ZS5Y.

Receiving the partner stations was almost no problem for Derek. Only the few watts output (2700 watts ERP) didn't make it quite easy. Derek needs to travel to other South African countries every now and then. So watch for more EME activities by ZS5Y, maybe also with 3 dB more output.

Antarctica via moon!!!

On April 3 Ernie, KC4/W1MRQ, worked his first 144 MHz EME QSO from McMurdo Station (<http://astro.uchicago.edu/cara/vtour/mcmurdo/>) in RB32HD on Antarctic soil. He will stay there until the end of August and as often as his dense work schedule permits he plans to be QRV for skeds. Also he can be found on the N0UK EME logger at times. W1MRQ's equipment consists of: FT847, 120 Watts brick amplifier and 4 x 5 element DPM144-5 yagis. The estimated ERP is some 2300 watts. Uneon

firmed rumours tell he might even arrange for a little more output power.

Ernie started his "Project Penguin 2005" as he calls it about two years ago, with the help from the K1WHS contest group and some more friends. The extreme weather conditions in Antarctica would not allow for a huge and high antenna construction. Therefore Ernie decided to build this small system low over the ground. All these complicating factors make a rather restricted operating window.

He writes: "I want to get in as many as I can this winter. Just to put things into perspective from my standpoint here, I work 54 hours per week, 6 days a week. That doesn't allow much time for other activities, even personal things. The biggest problem will be the weather."

The activity cornerstones are:

- KC4/W1MRQ will be QRV 10 days either side of the full moon until the end of August.

- KC4/W1MRQ will be available weekdays between 0630 and 0930Z only. Working or sleeping other times
- KC4/W1MRQ will be available all day Sunday and the first Saturday of each month.

Important: Skeds can be cancelled at the very last minute for most likely wx problems. The wx in Antarctica changes very fast. Stations should check their email and the N0UK Logger for last minute info. In case Ernie can't be QRV due to weather conditions he will send email and post on the logger.

Sked requests can be sent to W1MRQ@yahoo.com

VK0MT Macquarie Island

On March 17, 2005, the first ever EME QSO (JT65B) was made from Macquarie Island, when David, VK0MT, worked W5UN at 0630Z, followed by a QSO with KB8RQ shortly afterwards. Thanks to Rex,

VK7MO, who had talked him into trying EME and also loaned equipment, some more stations could complete with VK0MT. Furthermore there were some near misses because David was running only 120 watts to a single 10 element 2.3 wl yagi (ERP ~ 1 kW). Sadly he had to leave the island at the end of March.

At this stage there are no prospects of other hams on the Island in 2005. The Macquarie Island station is operated by the Australian Antarctic Division. The island population comprises only around 25 research scientists and support staff plus a few million penguins and a several thousand seals. The only practical way one can spend time on the Island is as a member of the Australian Antarctic Division program.

One of the support staff is the communications Officer who maintains all the satellite coms, VHF links on the Island and Computer networks for the



The 10 elements at VK0MT in QD95KM

scientists. Just sometimes we all are lucky and the Communications Officer is also a Ham.

The period of stay is usually 12 months but since David has left now, there will be no hams on the Island for the next 12 months. What a pity that VK0MT only discovered the thrill of EME the last two weeks of his stay — and immediately got hooked. So let's hope for next year...

OK1TEH (JO70)...

...continues working with his small set-up consisting of only 100 watts out and a 4 elements yagi (gain 6.5 dBd). In March Matej worked KB8RQ, W5UN and RN6BN. Though both sides had decodes a try with RU1AA resulted NC. Sure it will work out next time.

Soon Matej will start EME with a 10 ele dk7zb for 2m and a 23 ele dk7zb for 70 cm, both with full elevation.

QSO Reports

EA3DXU (JN11)...

...reports his success list from January until March — 95% of the QSOs were made in JT65B. Josep is very happy having finally completed with OH1JCS who with 2 x 3 WL and 150 W is the smallest EME station ever worked for him.

03/01/05
DK3SE RO/O#560 Sked
15/01/05
GW3XYW RO/O# 561 Random
OH1JCS RO/O# 562 Sked
LZ1DP O/RO Random
OK1DFC RO/O#563 Sked
RN6BN 53/52 SSB Random
19/01/05
NJ0U O/RO#564 Random
23/01/05
N9XG RO/O # 565 Sked
26/01/05
HF75PZK RO/O Random
12/02/05
5B8AD O/RO#566 Sked
W5UC RO/O#567 Sked
K8MA O/RO#568 Sked
08/02/05
S57TW O/RO Random
20/02/05
K0AWU O/RO# 569 Sked
21/02/05
OZ1LPR O/RO# 570 Sked
12/03/05
DL9MS RO/O#571 Random
13/03/05
DH2UAK RO/O# 572 Sked
KD5HIO RO/O#573 Sked
18/03/05
OK1YK O/RO#574 Sked
RA3AQ/1 RO/O Random

Upcoming DXpeditions

CY9SS

CY9SS will be active on 2 meters, including EME (plus all HF bands and 6 meters) June 7 to July 7. They are not ready to make skeds or announce specific plans yet. Please QRX for that.

The CY9SS group is still in need of some equipment and they may be making a request for loans soon. Latest info is on www.cy9ss.com

(source: NIBUG)

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