B M H A N e w s l e t t e r

B I C Y C L E M O B I L E H A M S O F A M E R I C A

Volume 19, Number 1 April 2010

Contents This Issue

Dayton Hamvention 2009 BMHA Forum

Date: May 16, 2009

Time: 9:30

Room: Room 5

The 20th annual BMHA forum is set for Sunday, May 16th at 9:30 AM in Room 5. Mike Nickolaus, NF0N, is our forum moderator this year.

Our featured speaker is Barry Bogart, VE7VIE/WV2J. Barry is an experienced tourist and will be on tour while attending the Hamvention. Barry is riding his folding bike and will be demonstrating his setup complete with APRS.

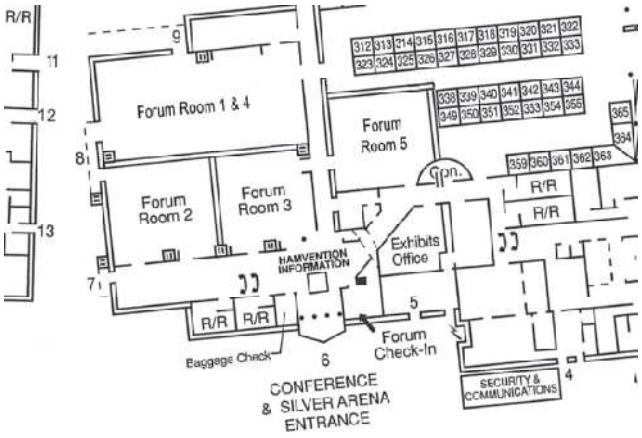
We are encouraging anyone to bring their setup and display at the Forum. We will set aside a portion of the forum time for attendees to roam the room and ask questions, take pictures and learn about how others have setup their bikes with VHF/HF gear and antenna systems. If anyone would like to present pictures or audio, we will have the necessary viewing equipment available. Bring your CD/DVD or presentations on removable media. Computer equipment will be supplied.

There will be a short BMHA business meeting and Q and A if time permits. Arnie, KA0NCR, the BMHA ride coordinator, will review the annual Hamvention Bike ride from Saturday. We are hoping for good cycling weather and to meet many of you on the ride.

See the BMHA web site at:
www.BMHA-Hams.org
or BMHA on Yahoo Groups for any last minute forum changes or additions.

The Dayton Hamvention website is located at:
http://www.hamvention.org
Mike Nickolaus, NF0N
BMHA Forum Moderator

Dayton Hara Arena Forum Map



BMHA NEWSLETTER

Editor: Norm Huber**, N9ZKS**

President: open

Vice President: Skip La Fetra, AA6WK

Secretary/Treasurer Mike Nickolaus, NF0N

Webmaster/Webhost Skip La Fetra, AA6WK

Directors:
Russell Dwarshuis, KB8U John Einberger, NA0A

Founder: Hartley Alley, NA0A *(Silent Key – May 2001)*

BMHA NEWSLETTER is a periodic publication of the Bicycle Mobile Hams of America. Permission is given to reproduce any of the material in this issue, provided the author is credited and the source is acknowledged as "from the Newsletter of the Bicycle Mobile Hams of America." Please send a clip to the address below. We welcome articles, suggestions, letters, announcements, photos, artwork – anything pertaining to the combining of bicycling with amateur radio.
BMHA is an affiliated Club with Adventure Cycling Association.

BICYCLE MOBILE HAMS OF AMERICA (BMHA)
C/O Mike Nickolaus, NF0N
316 E. 32nd Street
South Sioux City, NE 68776-3512

E-mail: BMHA-Webmaster@LaFetra.com
Website: http://www.BMHA-Hams.org/

Dayton Hamvention - BMHA - Bike Ride 2010

Date: May 15, 2010
Time: 3:00 P.M. Gathering / 4:00 P.M. Ride Start

Hello BMHA riders!
I thought that I would put out the word that we are going to again have a BMHA -Hamvention bike ride on Saturday afternoon. I am looking forward to getting more people out on the trail this year, and also more people displaying their human powered mobile hamshacks.

As of right now, we are looking at doing things the same time and place as last year, as seen on the BMHA web site at http://BMHA-Hams.org/BMHA/Timely/hamvention_ride_2009.htm Looking at around a 3PM gathering time for eyeball QSOs and to check out the bikes, and a ride start of about 4PM. There is a very nice place to eat after the ride just across the street from the trail head parking lot.

I hope that you will give some thought to coming out and joining us on the trail! Lets chat this up to others who might be interested but are not on the BMHA E-group.
73 Arnie KA0NCR

Here is a copy of Page 1 of the April 1991 issue of the newsletter.
How many remember when?

BMHA Newsletter

BICYCLE MOBILE HAMS OF AMERICA

Volume II Number 2 *April 1991*

BMHA NET. . . ON 20

The BMHA HF net has been meeting twice a month since Jan 6th and in that short time has become an important means of communication for bicycle-mobilers.

Mike Nickolaus, NF0N, the net control, will give a full report at the BMHA Forum at the Dayton HamVention on April 28. But in the meantime, consider these highlights: Top number of check-ins is 20 (on Feb 3). Average check-ins is 14. Two members actually checked in while bicycle-mobile -- Elroy Shelley, WB9GIE in Milwaukee and Elliott Kleiman, WA4YDK in Florida. (See Elliott's article elsewhere in this issue.

Frequency ---- 14.255 Khz
Time ---- 2330 UTC
Day ---- 1st and 3rd Sunday of each month

Members, non-members, anybody who's interested in bicycle-mobiling -- you're all welcome to check in and chat about anything that comes to mind.

ABOUT BMHA

Bicycle Mobile Hams of America got its start when a "Stray" in the June '89 issue of QST asked to "get in touch with hams who operate bicycle-mobile, or in any other human-powered conveyance", signed by Hartley Alley, NA0A.

25 hams responded, filled out questionnaires, and received a summary of the collected info.

Then in April of '90 we had our own BMHA Forum at the Dayton Hamvention. We played to a packed house, overflowed the tiny room assigned to us, and added 54 names to our mailing list. (See elsewhere in this issue for details on our program at this year's HamVention.)

Since January our mailing list has grown from 115 to 160, and paid membership has grown from 47 to 79.

EDITOR'S COLUMN

MY EXCUSE

When I came out of the cat scan my doctor looked me straight in the eye and said: "I'm going to level with you. You're in big trouble. I've scheduled you for immediate emergency surgery."

So that's my excuse for not getting out this issue of the BMHA NewsLetter on time. On March 5th I was operated on for a triple aneurism of the aorta. Five hours on the table.

This set me back 5 weeks before I could get back to the Model 100 and start work on this issue. At my age, 72, recuperation is a slow process.

Why just 4 years ago on this date I was well into my solo bike trek back to Massachusetts for my high school's 50th reunion. Compare that with today, where I've finally worked my way up to 40 minutes a day on the stationary bike. (It'll be another week before they'll let me get out on a regular bike and just pedal around the block.)

Doctors say that my aneurisms got started way back 30 or 40 years ago, when I was a smoker. On the plus side, they say that my last 30 years of cycling strengthened my heart so that it was able to withstand the stress of the operation.

DUES NOW $10 A YEAR

The Board of Directors has decided that it's necessary to raise the BMHA dues to $10. This won't surprise those who've had a part in running a club. The recent increase in the postage rate, along with the cost of sending how-to-join info (we send a NewsLetter) to all those who contact us, has pushed us too close to the red. The next issue will have a treasurer's report.

----NA0A, Editor

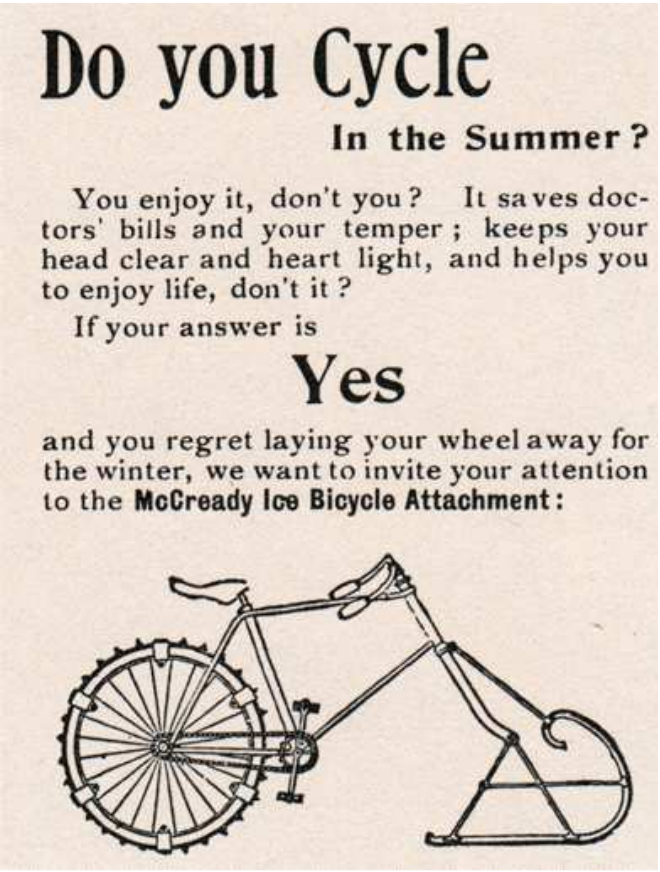
Bicycle Mobile Hams of America Membership and Treasury Report

It's been quite a while since we have updated you with membership totals and fiancés of BMHA. Here is a brief update:

Current membership total: 351 members from 48 states, 2 European and 4 from Canada.

Current Treasury balance: $1055.75 plus $1555.96 in two Savings Certificates.

BMHA does not currently require yearly dues for membership and it is anticipated we will continue in this mode. Donations are accepted however. Our expenses consist of some website expenses, minimal mailing costs and occasional cost of supplies. Income from the Savings Certificates and donations is expected to fund our expenses for a number of years.



Bicycling and Hamming across Nebraska

One of my passions in life is bicycling which I have been doing now for about 50 years. Over the last twenty years I have usually done at least one or two week self-contained riding somewhere in the Midwest states. I had been thinking of doing a ride across Nebraska for some time and this year, 2008 seemed to be the year to do it.

Why not combine one of my other passions, Ham Radio, with bicycling. I planned with a cycling and Ham Radio friend to ride and operate across Highway 20 in northern Nebraska. Both of us actually have tadpole tricycles and Burley trailers. We planned to load the trailer with our riding gear including nice big tents that can accommodate the tricycle along with sleeping quarters. I fashioned my trailer with a rack and plate to mount two antennas with an umbilical cord from the trailer to the trike containing the power cord and antenna coax cable.

My daughter and son drove both of us to the Nebraska/Wyoming border using a trailer that my riding friend, KAØNCR had made for hauling the trikes and bike trailers. Our plan was to only ride 30 miles the first day to Ft. Robinson state park. My daughter and son camped there the first night with us and this gave us a chance to assess the first day ride and see if we wanted to continue as a team. Arnie, KAØNCR, decided not to continue as he was having some feet problems. Probably a good choice as the next day was a difficult one with some pretty good hills and heat. I continued the next morning by myself with Arnies radio, an ICOM IC-703 and all the rest of my own gear. I had one 7-amp hour battery and charger which turned out to be sufficient. The trailer with all the gear was about 70 pounds.

My first radio stop was at the county line of Dawes and Sheridan. I setup the Buddistick on the trailer and connected the radio and turned it on and the County Hunter frequency of 14.336 was very active. Shortly a net control asked if anyone wanted to run a county and I checked in and had a nice run on SSB working 21 contacts including LY2ZZ as the farthest DX. I then went to 20 CW and worked 12 on CW. After tearing down the antenna and repacking the trailer, down the road I went.

My next stop was at Merriman and after I showered and watered down, I setup again in the park and ran Cherry County. On both SSB and CW on 20 I made 13 contacts. Several days later I ran the Brown and Rock county line and made 18 contacts.

My final stopping point was at O'Neill as I had so many things to do in preparation for RAGBRAI, a family gathering and window painting that I needed to return home. My wife grudgingly picked me up. Total mileage was 320 miles at an average of 8.3 mph. I camped 2 nights and spent 3 nights in motels. Later I will go back and finish the last two days from O'Neill to South Sioux City, NE.

The enclosed pictures are from my Nebraska trip:

1. Unloading and setting up at the Nebraska/Wyoming state line.

2. Park in Merriman Nebraska and radio and antenna setup. The ICOM IC-703 is sitting on the seat. When operating, I sat in the seat simply holding the radio on my lap.

3. Burley trailer showing the battery and if you look closely you can see the power cable which runs back to the tricycle seat.

4. This is one county I went through, Brown county Nebraska.

Mike Nickolaus
Amateur Radio - NFØN

BMHA's Official Logo

The next time you need to order new QSL cards, don't forget to include the BMHA logo in your design. Here's the official logo, as designed by Russ Dwarshuis, KB8U.

A Weekend Of Service

Norm N9ZKS

I have been participating in a great service opportunity for the last five years. It is the Houston to Austin Texas BP MS150 held every April to raise money to fund the eradication of Multiple Sclerosis. It is the largest fund raiser in the US for MS. This year they have $12,600,000 already and are hoping for $18,000,000 for a grand total. They limit the participants to 13,000 bicycles for safety and Jerry, WA0GLD has organized a group of better than a 100 motorcycle owners that vie for the privilege to support the bicyclists as communicators, medical support and mobile mechanical support. I say “vie” because Jerry opens the list for volunteers for the next year’s crew on Tuesday after the ride and as I write this there are 77 riders signed up for next year. We limit the number of motorcycles on the course to 90 to avoid excessive traffic on the road. Current requirements to join the team include having a ham license and having a dual band radio for communication. The ride depends on the ham clubs and repeaters of the area to provide communications for the entire support organization. There is an operation net, medical net, emergency net held on multiple frequencies each day and a scooter net held on a simplex frequency.

When I was single, I rode down the first time taking a long route allowing me to ride a “Saddle Sore 1000” and a “Bun Burner 1500” which are 1000 miles in 24 hours and 1500 miles in 36 hours motorcycle rides. I also would plan routes down and back through the Ozark Mountains for the great riding and scenery. I’m thinking of returning to those routes next year with my wife.

The ride itself is hard to imagine. Even with almost 100 miles for the day’s ride 13,000 bicyclists mean that one cannot find a section of road where there are not almost a solid string of riders in sight. There are movies on YouTube if you would like to see what I mean. Just Google “BP MS100”. You can see that the use of motorcycles for support is necessary as the presence of that many cars or vans on the road would severely threaten the safety of the riders. This is especially true when you consider

that the riders needing support are usually the riders with less fitness and experience. Sunday this year, I noted that before I got to the first rest area at the 10 mile point, there were riders at the 50 mile point.

The event is a spectacle with people setting up entertainment along the route such as a bag piper, fiddlers, and disk jockeys. Victims of the disease place themselves along the route to cheer on the riders working for a cure for the disease. Teams place signs along the route to motivate particular riders as well as the team as a whole. At the end of the day we see people walking up the hills trying so hard to finish under their own power.

We, the motorcycle Marshalls, have three major duties. First, we provide communication of any even information regarding conditions, accidents or hazards along the route. All communications are linked by radio or IRLP to the MS150 headquarters in Houston. A number of the vehicles are APRS (A system by which our position by GPS is sent via radio) equipped so that the HQ can see immediately where we are.

Second, we carry basic first aid supplies to offer to a victim of an accident although we are not providing first aid unless we are certified EMT's etc. There are also a good number of EMT's riding the route on bicycles who provide medical support until rescue personnel arrive.

Third, we provide mechanical support for the bicycle riders along the road. This is hopefully the primary duty we perform the whole day. We carry spare tubes, tools and pumps so as to be able to fix minor problems on the bicycles of the participants. It is amazing how happy a rider is when you ride up with a floor pump with gage as he starts to change his third of so flat for the day. It makes one want to see a return of "tire savers" which were popular in the 70's to "wipe" bits of glass, thorns or other puncture inducing material of the surface of the tire before they worked their way into the tube.

The final duty, and the one most of us enjoy the most, is to accompany the last rider across the finish line at Austin. Most of the crowd which cheered the early finishers is gone and the workers have started tearing down the finish area. We and the SAG Vans, and Ambulances follow the "Turtle" across the finish lines with horns, sirens and flashing lights to back up the PA announcer cheering the rider for his hard work riding the better than 150 miles during the two days.

With that another MS150 is completed and we head our separate ways. This year it was a very successful MS 150 in that we had no serious injuries requiring life flights. We lucked out in that the rain missed the riders for the most part with only a few sprinkles during the ride. I even received an email of thanks from a gentleman from Wales who flatted as he rode across the START line and again a few miles down the road. I had given him my information since my son-in-law is Welch and he knew the area. His Australian friend also lost his seat bag with credit cards and license that first 20 miles. He did receive them back a couple of days latter. Thanks to some honest Texans!

I'm planning to be back next year although it would be a lot better if we found the cure and could dispense with all the rides we support that are looking for the cure for diseases.

Wisconsin ride "GRABWAAR"

(Image of me in all my glory is attached)

Playing with an HT, a dozen or so repeaters and a score of fellow Hams sounds like fun, then add to it the joy of riding a bicycle 500 miles across Wisconsin. Then I helped prove that “when all else fails, amateur radio is there.” That’s my idea of a vacation.

Last June I participated in GRABAAWR (GReat Annual Bicycle Adventure Along the Wisconsin River) as a biker and a Ham.

GRABAAWR starts at the “top” of Wisconsin and makes its way to the lower left-hand corner following the route of the Wisconsin River. It follows the 427-mile length of the river as it winds through the northwoods, the central sands area and Wisconsin's Dairyland. The ride covers seven days of cycling - an average of 70 miles per day. Daily distances range from 55 miles to 85 miles. Riders enjoy a combination of rolling hills, flats and a few challenging hills along the way. The tour is limited to 1000 cyclists.

My bike is a Volae Expedition, a Wisconsin-made recumbent, a lightening fast reclining lawn chair; my radio for the trip was a Yaesu FT-60R HT.

I’ve had a recumbent for 12-13 years, choosing comfort and speed over pain and agony. The Volae, manufactured in Stevens Point, puts the rider in a very comfortable position, not on a seat, but something of a chaise lounger. The rider is in an extremely aerodynamic position as well as a efficient position for pedaling.

The Yaesu is a durable two band hand held. Van Elston, WA9FIO, helped produce an adaptor to connect the radio with a half-wave antenna that was mounted on the bike’s rack. That set-up let me hit every repeater on the route nearly as well as the 50 watt mobile units used by Hams helping the ride.

More than a dozen Hams helped with communications for the week, some staying all week and some coming for a day or two. Most were ARES/RACES operators from throughout the state. Most were assigned to rest stops along the way; one operator drove a “sweep” vehicle and there was a “SAG” as well, looking for lost, wounded and tired riders. Communications was coordinated by a control operator set up in an old, small school bus.

I was the only riding Ham. My duty was to report on road hazards and rider conditions, but the reality for the riding Ham is the opportunity to work with a group of fine Ham communicators. Our “work” and occasional semi-work kept me company on the long boring stretches that occur on all bike rides.

Hams saved the day for one unfortunate rider. The rider was right in central Wisconsin not far from a couple towns and just a couple miles from a casino when he lost control of his bike on wet pavement, falling and breaking his pelvis. Some other bikers alerted the nearby rest stop which contacted me on the repeater we were using. I was riding in the sweep truck that day and had a mag mount antenna for the Yaesu. We quickly found the guy, but when others in the area tried to get first responders, no cell phone (representing three different carriers) could get out. My 5w Yaesu could, and did and help was rapidly on the way!

There are some logistics to participate. I had to drive to Muscoda – the END of the ride – camp over night in the school gym, then pack my bike on a semi and get myself on one of nine or 10 buses for the day-long trip to Hurley, the start of the ride. Then, from Sunday through Saturday, you ride your bike to get back to your car.

WA9FIO was the second person to greet me in Muscoda. His summer home is a short distance from the school so he dropped by to make sure me, my bike and my radio made it that far with no hitch.

Riders may sleep in gyms, camp out on school grounds, or make their own arrangements for motels. Most camp. You may purchase a meal plan that provides good breakfasts and dinners at the schools. Lunch, on the road, is on your own. If you find pie, cookies or ice cream along the way, so much the better.

Generally, riding goes from 7 a.m. to 4 p.m., riders often going in small groups of those with similar paces and interests. If there is something to stop and see, then they stop and look. It is not a race, but a tour designed as a vacation and not an endurance event.

Bob Seaquist
202 Zephyr Circle
La Crosse, WI 54601
608 796-1992
seaquist.robe@uwlax.edu

INTRODUCTION

- My name is Dave Starkie and I am from the seaside town of Blackpool in England.
- My call is G4AKC which I have held since 1970.
- I am an engineer working on Ground Radio and Radar systems at BAE Systems at Warton and have been there since 1976.

OVERVIEW OF HF BICYCLE MOBILE

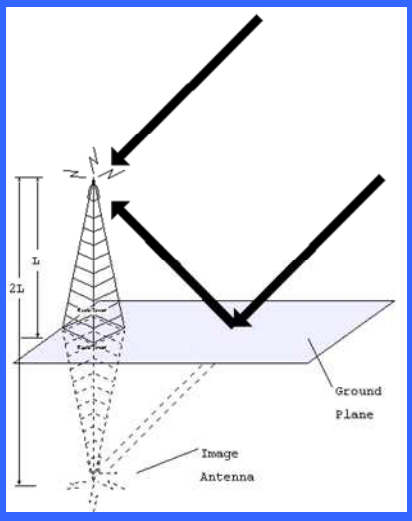
- I operate on 17 and 20M HF close to the sea water and work DX from bicycle and pedestrian mobile stations using both QRP, medium and high power.
- What's more cycling is a good way to yourself keep fit! (that's my excuse for doing it!)
- Myself and G7LPW achieved a recent world record contact between UK and New Zealand using only bicycle and backpack stations

KEY POINTS FOR BEST PERFORMANCE

- Location is very important and when very close to the sea it can give 15-20dB increase to receive and transmitted signals.
- Optimising the aerial/ground current.
- Centre or top loaded to get the aerial current as high as possible.
- Use High “Q” large diameter mono-band coils to minimise losses.

GROUNDPLANE

- The ground plane for any vertical antenna is just as important as the antenna itself and it will dictate the overall performance of the antenna system. It’s the “other half” of the antenna system.
- The complete radiated beam only forms several wavelengths from the antenna so a large ground-plane like the sea is ideal.



LOCATION

- The saltwater of the sea creates a perfect ground-plane for the antenna to work against much like a sheet of copper stretching for many miles.

AERIAL CONSTRUCTION

- The antenna is initially constructed at home using an aerial analyser with the antenna working against a set of known resonant radials.
- The antenna is then placed on the bike or backpack and the braid of the coax at the antenna side is not taken directly to ground but via a parallel or series tuned circuit (dependant upon frequency and size of frame) and then back to the chassis or frame.

EARTH TUNING BOX

- The tuning box is made for each dedicated HF band.
- It is placed between the braid of the coax cable at the aerial end and the frame of either the car,bike or backpack.
- We have now designed a new ground tuning box which tunes all HF bands.

ANTENNA SET UP

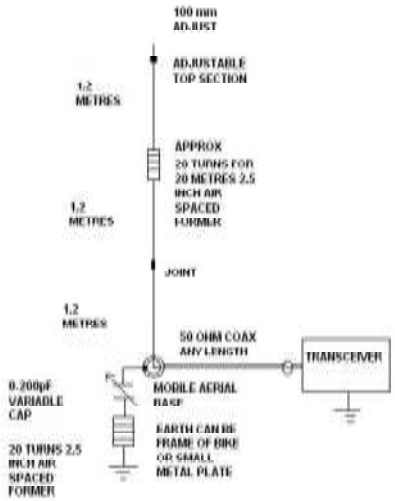
- Once the aerial is constructed it is then adjusted for resonance at home using 4 quarter wave resonant radials for the frequency of the antenna which raised above the ground.
- The antenna top section is then adjusted to resonance by using the aerial analyser.
- This resonant antenna is then fitted to either the bike, backpack or trolley.
- The braid of the coax at the feed end is then taken via the home made matching unit before it is connected to the frame of the bike, car or backpack, this is tuned to resonance when in the operating location.
- The length of the aerial is never changed to alter resonance.

WHAT ARE WE TUNING?

- When we tune the frame of the car, bike or backpack we are not just tuning the frame but we are tuning the surrounding area as well by capacitive coupling.
- When close to the sea we are harnessing what Keith likes to call “Gods linear amplifier” due to the gain when operating near to the water.

ADJUSTING THE GROUND CURRENT

- The ground conductivity determines how much ground current is flowing and hence if the tide is in, the ground conductivity is increased, so therefore the ground tuning has to be adjusted dependant on the prevailing ground conductivity conditions.
- A dramatic peak of both the received and the transmitted signal is achieved when the ground current is balanced when operating near to the sea.



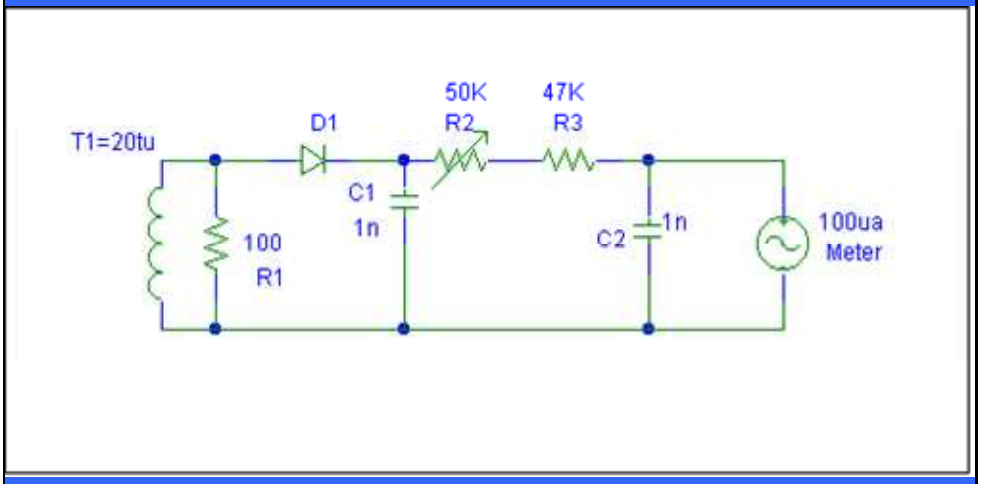
THE ANTENNA IS SET UP OVER AN IDEAL GROUNDPLANE, IE 4 RESONANT RADIALS WITH AN AERIAL ANALYSER TO GIVE 50 OHMS IMPEDANCE AND MINIMUM REACTANCE OVER THE 14 - 14.35 FROUENCY RANGE BY ADJUSTING THE NUMBER OF TURNS. THE RADIALS ARE THEN REMOVED AND THE LIMITED GROUNDPLANE CONNECTED VIA THE LC MATCHING UNIT AND ADJUSTED TO PRODUCE THE SAME CONDITIONS AS THE WITH RADIALS CONNECTED.
NOTE : I USE AN AERIAL CURRENT METER TO MEASURE THE CURRENT FLOWING UP THE ANTENNA AND WITH MAXIMUM CURRENT FLOW, THE VSWR CAN BE UP TO 1.5 : 1 AS MAXIMUM POWER TRANSFER IS RARELY ACHIEVED AT THE 1:1 POINT

BASIC DIAGRAM OF THE ANTENNA

AERIAL CURRENT BALANCE

- The use of a simple aerial current meter can be used to get the current balance correct as a change in ground conductivity changes the amount of ground current. A simple clamp on meter can be moved from the aerial to the earth line to verify current balance.
- A field strength meter placed in the far field is also very useful to optimise the antenna.

AERIAL CURRENT METER



MFJ CURRENT METER

FIRST BICYCLE MOBILE

- Living close to the sea gave me an idea of working a HF station from a bicycle and a couple of years ago I fitted a complete station to the bike, employing the same design antenna system.
- The system has continued to develop in the last five years.

CURRENT BICYCLE STATION

- Alinco DX-70.
- Four switchable 7Ah gel batteries.
- Roller coaster/switched capacitor earth matching.
- Top loaded antennas 10,15,17 and 20M
- Telescopic 7 metre fibreglass pole 40–160M
- Two way aerial switch
- Digital voice recorder
- Personal bike alarm
- Continually adjustable RF power output
- Trailer with KL500 linear amp300 W pep
- Two 12 Volt 40Ah gel batteries
- Libretto laptop for contact logging

HIGH POWER BIKE MOBILE

- The KL500 linear amplifier mounted in a trailer is powered by two 40Ah gel batteries and can generate up to 300 Watts PEP on SSB on all HF bands.
- I do not always use the trailer as it is very heavy!

ALINCO MOUNT WITH HEADSET

EXTRA BATTERIES

VOICE

RECORDER

RF FILTERING

- Due to the fact that all the equipment is in a confined space on the bike and particularly when using the KL500 linear amplifier, I have had to employ some home wound toroid filters to prevent any RF instability.

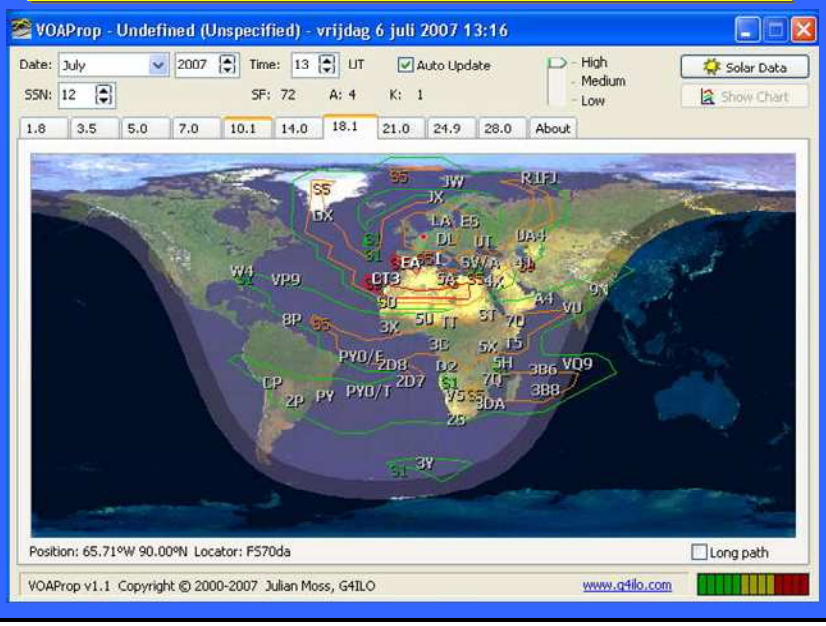
GETTING THE BEST RESULTS

- Location, as close to the sea as possible.
- Optimising the antenna and ground.
- Knowing which band and what time to work a certain area.
- Using programs such as VOA prop, which is an accurate propagation prediction program before going out.
- Using the grey line when possible.

"GREY LINE" PROPAGATION

- The grey line is a band around the Earth that separates the daylight from darkness.
- Propagation along the grey line is very efficient.
- The major reason for this is that the D layer, which absorbs HF signals, disappears rapidly on the sunset side of the grey line and as it has not yet built upon the sunrise side it provides a low loss path.

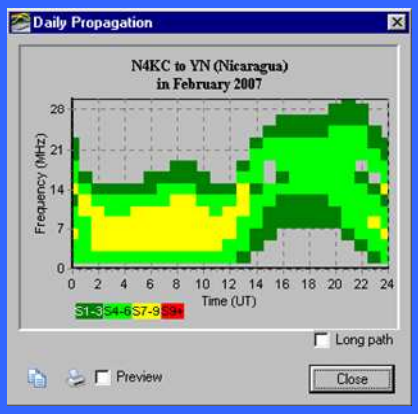
GREY LINE AND VOA-PROP



"VOAPROP" PROGRAM

- VOAPROP also provided us with the predicted path likelihood, frequencies and times of propagation all from live data.

- What's more its free to download!



ON AIR RESULTS

- Incredibly ……
  the performance of either the bike, backpack or trolley when near to the salt water is comparable with a3or 4 element mono-band beam at 60 or 70 feet.
- Many on air tests have been compared with stations using beams whilst working into USA, VK, ZL etc with stunning results.

- ***That is why we contemplated this ULTIMATE challenge …***
- ***Blackpool to Christchurch New Zealand using..***
- ***Bicycle to backpack pedestrian mobile and QRP backpack to backpack pedestrian mobile .***

RECORDED BICYCLE QSO 0845Z

- VK4SU 15/11/07

- 18,100km long-path grey line contact.
- Location:Queensland Australia.

ZL TO UK LONGPATH BACKPACK TO BICYCLE 0800Z

- G7LPW/ZL3/ PEDESTRIAN MOBILE
  TO
- G4AKC BICYCLE MOBILE

- Long-path QSO Blackpool promenade to Christchurch New Zealand propagated distance = 21,100Km
- 15th November 2007 at 0800Z on 20 Metres SSB 50 watts PEP each end.
- Now listed in the "World Records Academy"as the longest distance bicycle to backpack contact.

ZL TO UK LONGPATH BACKPACK TO BACKPACK 0815Z

- G7LPW/ZL3/ PEDESTRIAN MOBILE
  TO
- G4AKC PEDESTRIAN MOBILE

- Long-path grey line QSO Blackpool promenade to Christchurch New Zealand propagated distance = 21,100Km
- Date:15th November 2007 at 0815Z on 20 Metres SSB:14345MHz
- SSB 50 watts PEP each end.

QRP ZL TO UK LONGPATH BACKPACK TO BACKPACK 0820Z

- G7LPW/ZL3/QRP PEDESTRIAN MOBILE

TO

- G4AKC/QRP PEDESTRIAN MOBILE

- Long-path grey line QSO Blackpool promenade to Christchurch New Zealand propagated distance = 21,100Km
- Date:15th November 2007 at 0820Z on 20 Metres SSB:14342 5MHz
- 5 watts QRP each end!