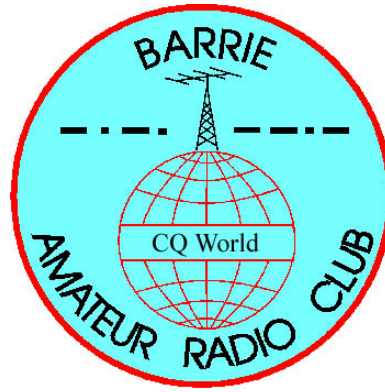


BARC  
Newsletter



Issue # 2007-10  
December 2007

Club call: VE3GCB

Club repeater: VE3RAG  
147.000+

## Barrie Amateur Radio Club Newsletter

### Editorial

BARC elections were held at the November 13<sup>th</sup> meeting and here are the 2008 club officers:

<b>President</b>	<b>Alex McGuire</b>	<b>VE3PKA</b>
<b>Vice-President</b>	<b>Jim Collins</b>	<b>VE3LIC</b>
<b>Treasurer</b>	<b>Rick Allen</b>	<b>VA3WSB</b>
<b>Secretary</b>	<b>Mary E Adams</b>	<b>VA3MIZ</b>
<b>Director</b>	<b>Al Duncan</b>	<b>VE3RRD</b>
<b>Director</b>	<b>Jack Hartley</b>	<b>VE3RDQ</b>
<b>Membership</b>	<b>Darwin Duckworth</b>	<b>VA3DUC</b>
<b>Past - President</b>	<b>Harry Gauthier</b>	<b>VE3SXH</b>

Note that the December meeting will not be a general meeting but will be an open Executive meeting. Members of the club are welcome to attend if they wish. The next general club meeting will be held on 8 January 2008.

The annual BARC Christmas Party was held on Saturday the 24<sup>th</sup> of November. Twenty people attended and everyone enjoyed the excellent food prepared for us by Debb herself.

The BARC 2007/2008 Basic Amateur Radio course is running and currently has 5 students. Each Thursday night class will have a demonstration or video shown on some aspect of Amateur Radio – everyone is invited to drop in. Classes are at 7pm in room 140 of the Barrie Central Collegiate at 125 Dunlop St. West in Barrie.

The Simcoe County Ham Radio Emergency Communications training is also progressing well with 17 County employee students. You can read more about HREC at:

<http://www2.simcoe.ca/healthsocialservices/emergencymanagement/simcoecountyhamradioemergencycommunications/index.htm>

The big news is the acquisition of the old Rogers tower near Edgar by the Lake Simcoe Repeater Association. This will result in a major upgrade of this very important wide-area repeater, as the old shelter was too small for expansion and the old tower was in need of replacement. Read the LSRA report included in this issue of the newsletter.

LSRA operates and maintains the following VE3LSR/VA3LSR repeaters:

**2 M**

146.850- (general purpose repeater with excellent wide area coverage)

147.315+ (includes IRLP – node 2688) (156.7 CTCSS tone)

**70cm**

444.350+ (156.7 CTCSS tone)

**6 M**

53.070- (no tone)

Remember that LSRA is not a club, but is an association of hams working together to help keep these repeaters on the air for everyone to use. By taking out a membership in LSRA you are providing important support with your money which can help pay for repairs, upgrades and operating costs. Other expenses that must be covered are insurance and lease costs for the repeater location. The Lake Simcoe Repeater Association cannot operate without your support.

If you have anything you would like included in future issues of the newsletter, please email them to me or bring them to a club meeting.

Editor – Al Duncan VE3RRD

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Anything in the Barrie Amateur Radio Club Newsletter may be used in other Amateur Radio publication provided credit is given to the author and to the Barrie Amateur Radio Club.



If you have any inquiries, you can contact the club via the following email address:

[HamRadio@barriearc.com](mailto:HamRadio@barriearc.com)

Be sure to visit the Barrie Amateur Radio Club webpage at:

<http://www.barriearc.com/>

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## Next Club Meeting

The next general BARC meeting will be on Tuesday, 8 January 2008. Start time is 7 pm and the location is upstairs in the Zehrs Store community room at the corner of Big Bay Point Rd and Yonge St.

You do not need to be a club member to attend the BARC meetings. Everyone is welcome.

Minutes of all meetings back to November 2004 can be found by clicking on the BARC Minutes of Monthly Meetings link found on the club webpage.

Back issues of this newsletter for 2007 can also be downloaded from the BARC website.

If you would like to do a presentation or a “show and tell” at one of the BARC meetings, please contact someone on the executive. Come and show off your latest ham project.

## Other Events

Don't forget the regular Monday evening ARES net at 7:30pm on the VE3RAG (147.000+) repeater. Net control is Dave VE3ILA

### **Morning Breakfast Groups**

Currently there are two “Ham” breakfast gatherings in Barrie – everyone is welcome (talk-in is on VE3RAG 147.000+).

- Every Saturday morning at 8am at “Debb’s Place” restaurant located at 352 Huronia Road near the intersection with Big Bay Point road.
- Most Wednesday mornings at 9am at the restaurant at the Atrium located at the corner of Cundles Rd. and St. Vincent (check on VE3RAG).

**Basic Amateur Radio Course** – started 22 November 2007

**Guides on the Air (GOTA)** – 16 & 17 February 2008

**Ontario QSO Party (contest)** – 19 & 20 April 2008

**Walk for Dog Guides** – 31 May 2008 at Centennial Park, Barrie

**Celebrate Barrie** – June 2008 at Centennial Park, Barrie

**Field Day** – 28 & 29 June 2008

*If you can help out with any of the above events, please contact the club executive.*

# Lake Simcoe Repeater Association Report

As you may be aware, the Executive of the Lake Simcoe Repeater Association have been negotiating with Rogers Cable Communications Inc for the purchase of their tower adjacent to our existing site near Edgar. I would like to advise you that effective 1 December, ownership has transferred to the Association. Roger's has been both very generous and very supportive of this transfer. Noting the public service role of the Association and the repeaters/packet radio equipment, Rogers sold the tower and site equipment for one dollar.

The tower is very substantial; at 250 feet it is more than twice the height of the current VE3LSR tower. Included in the transaction are the building with addition inside the security fence, a 53 foot shipping container on cement piers outside the fence, and a diesel generator. The plan is to install the Association's equipment in the front half of the building and to use the back half, separated by a wall, for dry storage.

Much work needs to be done to prepare the new site for occupancy; it has been some time since the cable TV operation inside the building was in service. A sincere thank-you to Len VA3LM and a number of other members who have spent their Saturdays stripping the interior of the building and preparing for removal all the equipment that Rogers is retaining. A bank of 6 cabinets was stripped of the TV equipment and the cabinets placed in the middle of the room. The next step is to reinstall the AC wiring and grounding in preparation for the installation of the repeaters. The generator clearly has not been run for a considerable period of time. The battery is shot and the control module has suffered a major failure, with a number of shorts and burned wires. Thanks goes to Ian, VA3QT, for attending to the paper work and for taking the time out of his basement repairs to personally deliver the final paper work to Rogers. A sincere thank-you to Dave VA3VD who has taken the lead servicing the generator, Ron VA3NLS who is working on the control board, Mike VE3MKX who arranged the discounted purchase of a new battery, and Ted VA3TWP who is checking out the building wiring, transfer panel, and generator wiring. Thanks also to Jamie VE3IJM who is actually going to climb the tower in this weather to install a 210C4 antenna donated by Chuck VA3SD. Also Greg VE3GPH and Carl VE3BY, thank you all.

There are a number of questions to be answered yet with respect to the existing antennas on the tower, what can be reconfigured/re-assigned, and what can be pulled down and sold for scrap. These will be addressed in the coming weeks. The voice repeaters and packet equipment will be moved as expeditiously as possible. You will appreciate that with winter having set in, and given the long-term forecast for a cold winter, it will probably be some months before the new site is fully operational.

Having said that; the Association is in clear need of financial support. At this point there are only 35 dues paying members and the income is not sufficient to underwrite updating or renewing the radio equipment. Central Ontario clubs and individual ham radio operators are invited to make a contribution or join the Association. The current annual dues are only \$20.00 and can be mailed to our Treasurer, Darrell Drake VA3DG, 636 Lakeshore Rd E., RR#1, Oro Station, ON L0I 2E0. For further information on the Association, repeaters or packet radio links click on <http://www.alslinkwith.com/ve3lsr/>.

73,  
Bob Simpson VE3ODR  
President, LSRA

**Help support a valuable resource – become a member of LSRA**

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Looking for some “new” ham gear? Check the Ontario Swap Shop <http://www.ontarioswapshop.com/>  
And the LSR swap page <http://www.alslinkwith.com/ve3lsr/swap.htm>

# Amateur Radio Emergency Service - ARES Report



On November 14<sup>th</sup>, the Town of Oro-Medonte conducted a table-top exercise as part of an emergency management course for newly elected and other officials. The Orillia emergency communications group as well as Ian VA3QT and Jack VE3RDQ from BARC participated and WinLink 2000 was demonstrated.

At left, Ian is changing frequency on the BARC portable 2m/440 rig as the Orillia group conducted radio checks from a number of Township fire halls. On the table is Jack's WinLink station consisting of an MFJ-1270 TNC, ICOM IC-V8000 radio, Alinco power supply and laptop. Ian had his laptop at the other end of the table and was remote controlling the

Winlink Remote Message Server located at RVH in Barrie. At the end of the exercise Bob Simpson VE3ODR (who organized the SET or Simulated Emergency Test) joined Jack and Ian in a demonstration of Amateur Radio for the Mayor and several Councilors.



Often during a disaster, existing means of communications, be they landline telephone, cellular phone or wireless radio links, become unusable because they are overloaded or simply no longer exist. They get overloaded when too many persons try at the same time to dial for help or to check on a friend or family member in a disaster area. They can become non-existent when wires and towers topple and electrical supplies fail, due to acts of nature or terrorism.

When emergency agencies are required in a zone of disaster, their regular means of communications can be affected by the same disruptive causes as others. That creates a need for a supplemental or back-up communications system, one that comes complete with equipment and trained operators who are licensed by the Canadian government, all at no cost to the public or the agency involved. In fact, these men and women are volunteers, members of the Amateur Radio Emergency Service (ARES) sponsored and operated by Radio Amateurs of Canada.

Amateur Radio is in need of persons who recognize how crucial our back-up service is to those agencies that respond in times of emergency and to the members of the public we serve. If you have not yet obtained your Amateur Radio Operator Certificate, you are strongly urged to do so in order that you, too, may become a trained emergency radio operator.

The ARES EC (Emergency Coordinator) for the City of Barrie is VE3ILA Dave Wainwright, and the EC for the City of Orillia & North Simcoe County is VE3ODR Bob Simpson.

# The Technical Corner

In the “The Technical Corner”, subjects of a more technical nature relating to Amateur Radio and electronics will be covered. This will include the reprinting of technical submissions from other newsletters. Please send any submissions that you wish included to me, this includes any good articles you have from old newsletters from other clubs.

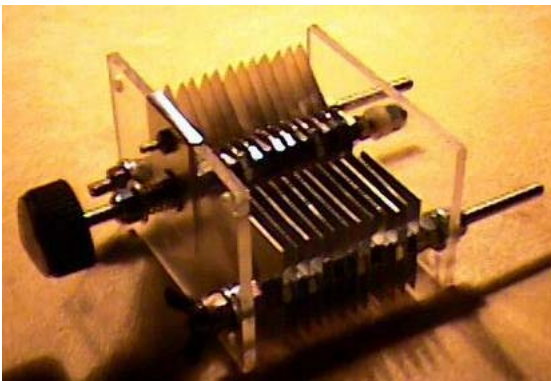
Editor: Al Duncan VE3RRD

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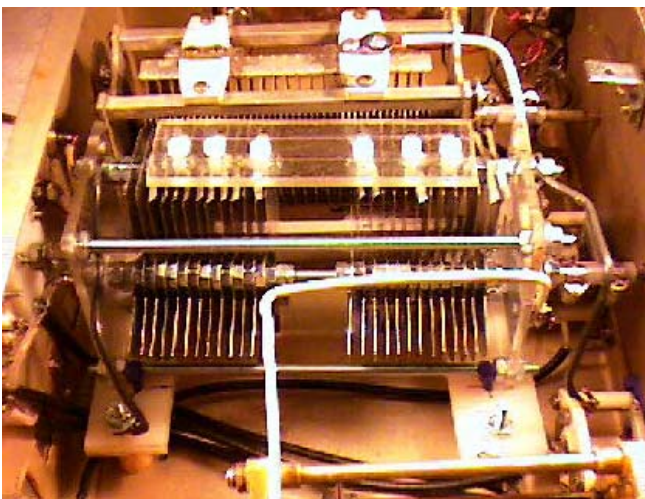
## Build Your Own Transmitting Air Variable Capacitors!

By: David Hammack, N4DFP

Transmitting air variables are becoming scarce and expensive, even at Hamfests, and the kit capacitor from TenTec is over \$50.00. This is a viable alternative for medium power projects. Though I have not tested it, I suspect a carefully aligned capacitor of this type would easily carry a kilowatt. This would be perfect for a Transmatch or the coupling capacitor in a Loop Antenna without breaking the bank. Ham Radio is a fun hobby, but it doesn't necessarily have to be expensive, as long as you carry on the Homebrew tradition!

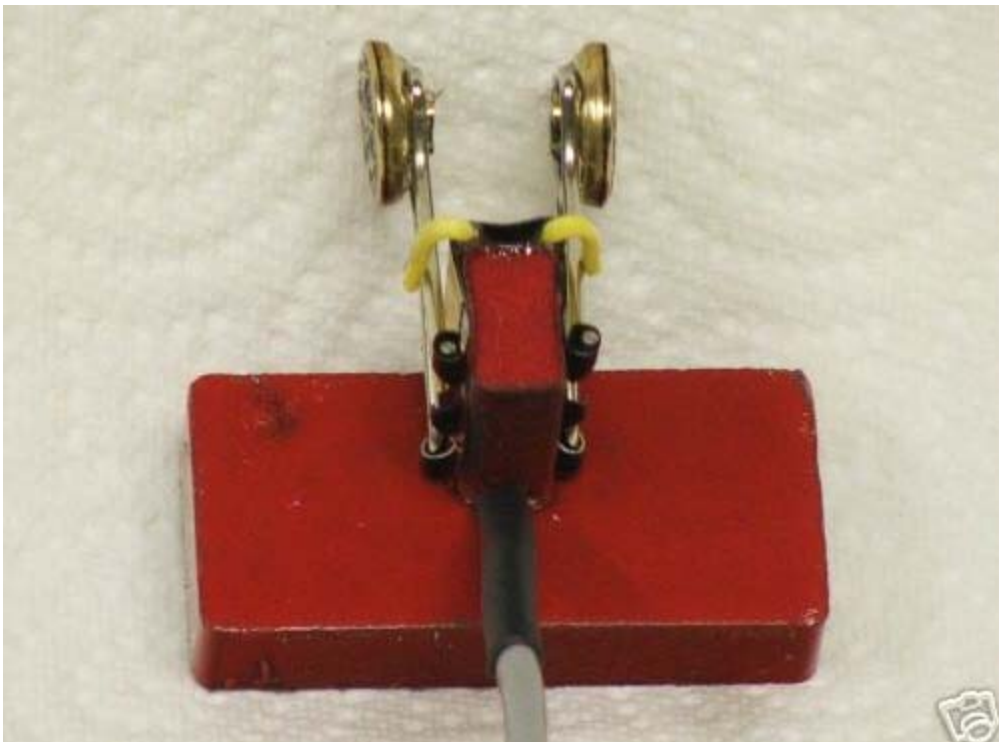
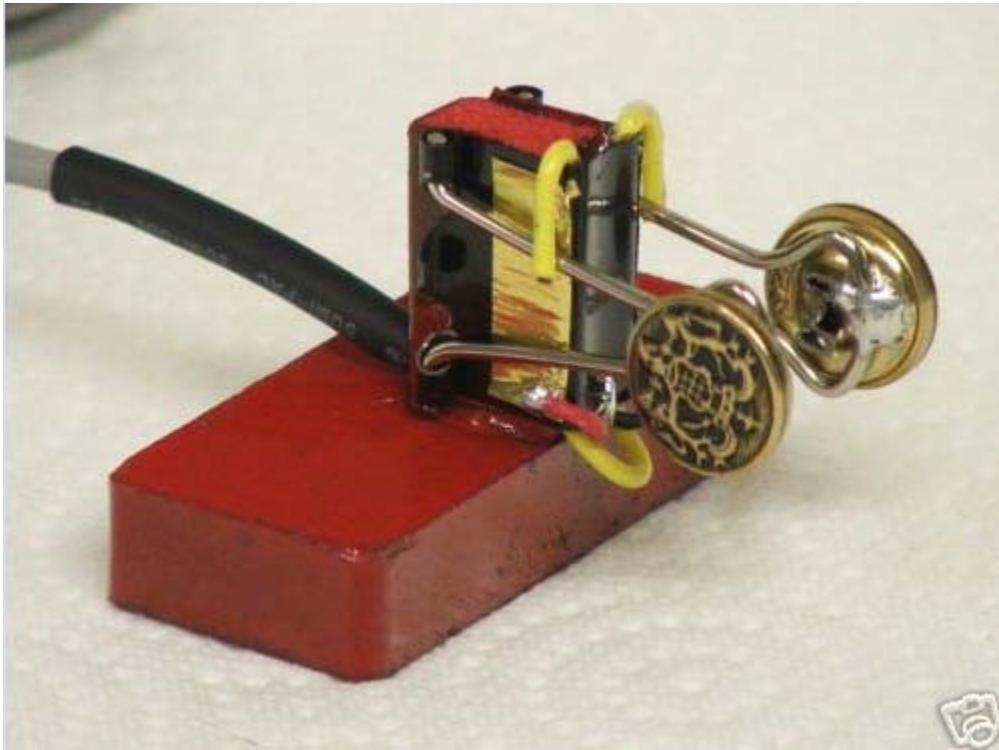


The complete construction article on making an air variable capacitor can be found at:  
<http://www.eham.net/articles/5217>



In the foreground is a homebrewed capacitor in a homebrewed SPC Transmatch made by N4DFP. Details of this project can be found at:  
<http://www.qsl.net/n4dfp/transmat.html>

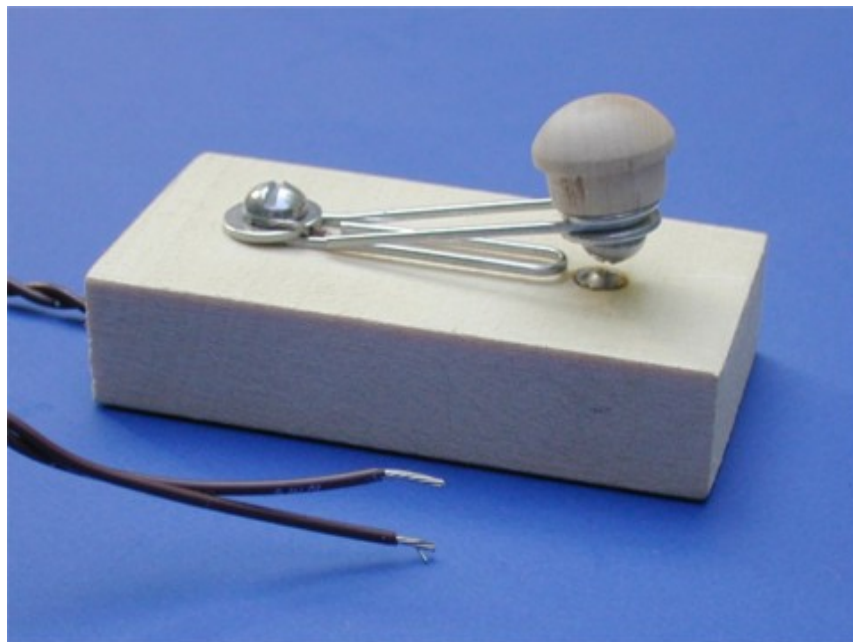
## Homebrewed Micro Mini QRP Iambic Keyer Paddle



The micro mini keyer is made from a binder type paper clip. Metal buttons from a jacket are used for the finger paddles and the frame is painted wood. These keyers were for sale on eBay, but are no longer available.



The Bulldog paddle made from a paperclip  
These are available at <http://www.amateurradioproducts.com/>



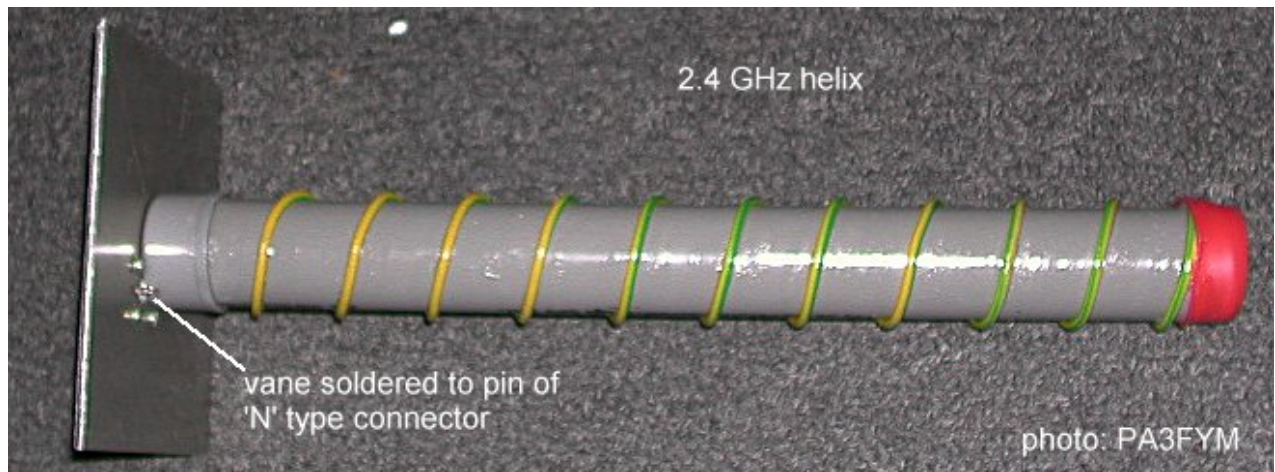
Or how about a straight key using the Iowa QRP Key design?  
See: [http://www.qsl.net/w0pwe/Finished\\_Projects/Paperclip\\_Key/Paper\\_Clip\\_Key.html](http://www.qsl.net/w0pwe/Finished_Projects/Paperclip_Key/Paper_Clip_Key.html)

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Don't be afraid of electronics, remember that in earlier days of Amateur Radio, homebrewing was the norm – if you bought everything from a store you were called “an appliance operator” and pitied for your lack of project homebrewing ability. So try building something, even if it is only an antenna or other basic project (like one of these paper clip keys), and you will enjoy the feeling of satisfaction and pride that a “store bought” will never bring. Simply “owning” stuff can never replace “building” and experimenting. **THIS** is what Ham Radio is really all about!

## Helix antenna for 2.4 GHz 802.11 WiFi

By Dr. Remco den Besten, PA3FYM



Construction plans can be found at: <http://helix.remco.tk/>. The antenna is capable of between 13 and 17 dBi gain. This antenna could be used with wireless routers to create a point to point WiFi link to extend high speed internet access to a location without internet (e.g. Field Day).

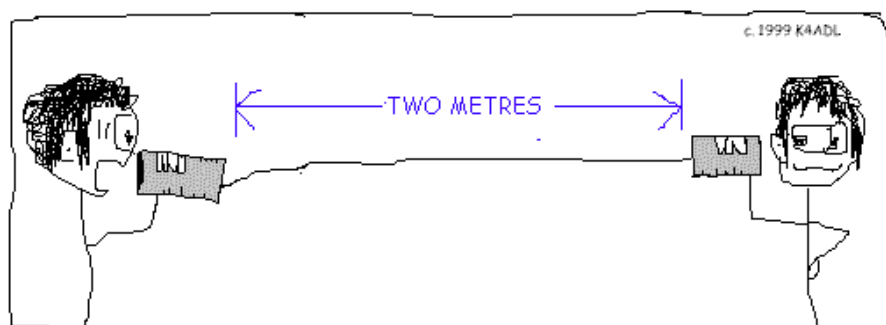
When choosing hardware for building long distance or point to point links there are a number of key features to look for:

- Removable Antenna with common connector type
- Adjustable Transmit Power
- Power over Ethernet (POE) support (allows the router to be remotely mounted and powered)
- Bridging or WDS Support

The D-Link DWL2200-AP and US Robotics MaxG Router are two suitable choices.

Suitable low loss coax such as LMR-400 using N type connectors could be used between the wireless router and antenna (but keep the cable as short as possible). An adapter is required to convert the reverse-SMA connector on the router to something that can be interfaced to an N connector (e.g. convert to regular SMA).

Another solution is the RadioLabs Wireless Bridge Kit which is a cost effective way to send a wireless internet connection up to 8 KM line of sight. The RadioLabs Bridge5 kit is specifically designed as a low-cost link, with 802.11 B and G capability and excellent security. More information can be found at: <http://www.radiolabs.com/products/wireless/point-to-point-bridge.php>



THE EARLY YEARS