

QSLING THE BEACONS

By Steve McDonald, VE7SL

Chances are that you're already a dyed-in-the-Wool beacon DXer. No? Then perhaps you soon will be! The thrill of logging low power beacons from hundreds or even thousands of miles away is one that keeps dedicated beacon chasers at the dials, season after season. Plotting the constant changes in propagation, from hour to hour or night to night, as new or rarely heard signals suddenly (and often times loudly) replace the usual nightly pests, is a constant source of enjoyment for hundreds of dedicated long-wave DXers. An equal source of enjoyment for many beacon hunters is that of QSLing their catches, thus adding a new dimension to their DXing efforts.

When tuning through the LF beacon band it is all too easy to overlook the fact that behind each and every signal that one hears, there lies a story to be told. Often overlooked is the realization that for each beacon heard, a transmitting facility has been carefully researched, planned and painstakingly installed. Antenna systems, along with intricate and often massive ground systems have been laboriously erected and precisely tuned. After undergoing initial test trials and approval by government officials, the beacon is eventually put into twenty-four hour service guiding pilots or mariners as they navigate their way across the globe. All of this can be easily dismissed by the casual DXer, intent only with the logging of a 'new catch'. The QSLer, on the other hand, will seek not only the confirmation of his new prize, but as much background information on the beacon as possible. Next to actually visiting the beacon site itself, the best method of learning more about the signals you hear is to seek verification of your reception, along with as much data about the station as possible.

Have you ever wondered why some beacons are heard consistently, night after night via skywave, even when band conditions are less than optimum? Are they running higher than average power? Are they running a more efficient antenna system than most? Perhaps their ground system is unusually elaborate? Is the transmitter location somewhat unusual? And how about that trans-continental catch you made on the last good band opening? Are you curious about the setup used to launch that signal all the way to your location? These are just some of the factors motivating the QSL'er. Of course, we should not forget the fact that verifications are also fun to collect and a bit of a challenge as well.

For the newcomer to beacon QSLing, the first question likely to be asked is, "Where do I send my report?". There are many sources of information that will help get your report on the way. One of the best (and oldest) is THE LONGWAVE BEACON GUIDE by Ken Stryker. Although now out of print, the guide is still an excellent source of data. If you don't have a copy of the guide don't worry. I will tell you later how you can easily access this information. The nice thing about the guide is that, unlike most modern lists and internet data banks, the name of the airport is usually provided as well as the operating agency (city, county, FAA, NavCan etc). A typical listing might indicate the following:

"515 RRQ ROCK RAPIDS IA (Municipal)"

This is all the information required to get your QSL request on its way! Use this data to form a generic address of the following form:

Airport Manager,
Flight Services,
Rock Rapids Municipal Airport,
Rock Rapids, Iowa

If the Beacon Guide indicates that it is an FAA controlled facility, then the generic address can be modified to:

FAA FIELD OFFICE
NAME OF AIRPORT
City, State

Another typical listing taken from the guide would be, for example:

"408 MW - MOSES LAKE WA (Grant Co. - Pelly) FAA"

Since the guide indicates that it is an FAA controlled site, the generic address would be:

FAA FIELD OFFICE
GRANT COUNTY AIRPORT
Moses Lake, Washington

Note that "Pelly" is the name of the beacon itself and is not part of the actual mailing address. This method will work for most U.S. aerobeacon sites. Canadians are another story and a bit of a challenge. They are, however, excellent QSLers!

A large percentage of Canadian beacons are maintained by the government under the authority of NAVIGATION CANADA or NAVCAN. All major airports and the big beacons in the northern territories all come under their jurisdiction. A smaller percentage are operated by provincial governments while the remainder are funded by various municipalities, airport commissions, oil companies and assorted private operations. The guide will denote NAVCAN beacons as "TC" (for TRANSPORT CANADA, NAVCAN'S old name) and private beacons as "PVT". An excellent source of information for all Canadian beacons is the "CANADA FLIGHT SUPPLEMENT" available from the Canadian government publications department:

<http://www.fedpubs.com/mpchrt/charts/cfs.htm>

Updated every few months, this massive book is packed with data on every Canadian airport (even remote gravel strips) and tells who the operators are. Usually this is enough to manufacture the generic mailing address. A generic address for NAVCAN operated beacons should follow this format:

ELECTRONICS MAINTENANCE MANAGER
NAVIGATION CANADA
NAME OF AIRPORT
City, Province
CANADA

For non-government operated airports, I have had good luck with the following generic form:

AIRPORT MANAGER,
FLIGHT SERVICE STATION,
NAME OF AIRPORT,
CITY, PROVINCE,
CANADA

There are several helpful information services available on the internet. One of the best is the NDB REFLECTOR, a group of dedicated NDB DXers who will bend over backwards to help you

out. There are many individuals on the reflector that can supply you with the needed information contained in Stryker's Beacon Guide. A simple request to the reflector will get you all that you need to form your generic address! Information on joining the NDB Reflector can be found here:

<http://groups.yahoo.com/group/ndblist>

Another informative list, by Jack Sippel, can be found here:

<http://www.mindspring.com/~longwave/ndb-ils.csv>

This list often contains airport names as well as county names, both of value when trying to generate a generic address.

The well-known 'AIRNAV' website contains a data base that often supplies the name of the airport operating authority. This information can be accessed at:

<http://www.airnav.com/cgi-bin/navaid-info>

Lastly, the website maintained by Jill Dybka contains a list of addresses for many south-eastern U.S. beacons:

<http://dybka.home.mindspring.com/jill/radio/lwqsl.html>

Now that you know where to send your reports, let's examine the contents and enclosures of the report itself. The success or failure of your verification request is largely dependent on the quality of your written report. Finding the right format is largely a matter of trial and error. Remember that you will only have one opportunity to make a first impression. Try to make that impression a good one by presenting a neat (preferably typed) report, in letter form, that is neither too long nor too technical. Try to convey your enthusiasm in such a way that the recipient of your report will not want to let you down!

At all costs, avoid any ham or swl "jargon" that the recipient will probably not be familiar with. Signal strength should be described in general terms or in comparison with other nearby beacons, rather than in S-units or in SINPO code. Provide the exact date, time and frequency as you would normally, but also describe the "identification cycle" such as 'dash' after the ID or 'dash' after 3 IDs, etc. Provide the timing of the identifier in terms of the number of seconds per ID cycle and the number of cycles per minute. Don't forget to mention the beacon's pitch or frequency of the modulated tone (usually either 400 or 1020 Hz) along with the cycle information. The timing cycle and the tone are two characteristics that are actually unique and verifiable.

If you can normally hear the reported signal via groundwave, particularly during the daylight hours, provide this information. Most managers are interested in knowing their extended groundwave coverage. If you are reporting a frequently heard beacon, a description of the signal over several evenings is preferable to a "one-shot" reception report. Often times, however, the one-time reception of a distant beacon is the verification that we most often seek. In this case, the rarity and the distance covered should be the main focus of your report. Include a short description of your receiving equipment (including antenna information) in all reports, and perhaps even a photograph of your shack or specialized receive antenna, such as a loop. In brief, try to make the report interesting and informative rather than a simple plea for verification. Be sure to ask specifically about the beacon output power and antenna system details. This information is very hard to gather and is not available from information data banks.

Your reports must include a "prepared form card" (PFC) or a prepared letter unless you almost want to guarantee that no reply will be received! Only one aerobeacon to my knowledge, NB - 530, ever had a printed QSL card for verifying reception reports. Don't expect the manager to

make up a card just for you! The PFC should contain all of the essential data required for verification.

Each PFC should contain the following basic information:

1. Station identifier
2. Station location
3. Frequency in kHz.
4. Date/Time of reception
5. Verification of reception statement
6. Blank space/location for signature/station stamp
7. Blank spaces/locations for items like antenna type, power, etc.

Keep in mind that if your card requires too much work or time to complete, you run the risk of losing the verification. Trying to develop an efficient and attractive "information gathering" PFC can be a hobby unto itself.

It is safe to assume that your chances of receiving a reply to your report are directly proportional to the quality of your report, including the PFC. If the verie-signer notices that you have taken the time and trouble to create a neat, professional looking PFC, hopefully he will assume that it must be of same importance to you. There are several ways of creating presentable PFCs'.

The easiest method of making a PFC is with your computer. The example shown below was created using my Windows 'Paint' program. Most printers will allow you to print on medium cardstock, suitable for the PFC. If you want something a little fancier, there are thousands of images available on the internet that can be cut and pasted onto your PFC. A liitle experimenting will provide you with many pleasing generic PFC designs.

RRQ 515 KHz	<u>MUNICIPAL AIRPORT</u> <u>ROCK RAPIDS - IOWA</u>
THIS WILL VERIFY YOUR RECEPTION OF RADIOBEACON "RRQ" ON 515 KHz AT 0543 UTC ON FEB 4, 2003.	
BEACON POWER: _____ WATTS	
BEACON ANTENNA: _____	
SIGNATURE & OFFICIAL STAMP:	

There has been a long-standing tradition amongst QSLers that reports should always include a souvenir or memento for the verifiers! Such "enclosures" need not be expensive or elaborate to demonstrate your good faith. Try to include a postcard of your area or a photograph of your equipment or antenna system. Lastly, but probably most importantly, close your letter with a polite request that your report be verified by the completion of the enclosed PFC.

Never demand a verie! Remember, the manager is doing you a big favor by responding at all. Your report must include return postage as a matter of courtesy, convenience and economics.

If you haven't yet started to QSL the beacons, I urge you to add a new dimension to your Longwave DXing by giving it a try. Get involved with other NDB DXers via the internet and be sure to report things such as power and antenna types for any North American beacons to the reflector so that this information can be added to the weekly "NDBs Reported in North America" list, by Andy Robins. DXing the beacons is a great hobby and your active participation can make it even better.