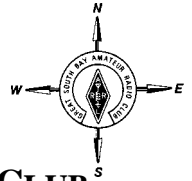


THE COMPASS



THE OFFICIAL NEWSLETTER OF THE GREAT SOUTH BAY AMATEUR RADIO CLUB

VOLUME 32 ISSUE 9

"..serving the community through Public Service."

Sep., 2004

GSBARC 2004 OFFICERS

President: Walter Wenzel, KA2RGI
Vice Pres: David Wandell, N2UHR
Treasurer: *** Position Open ***
Corr. Sec.: Scott Verity, KC2FBV
Rec. Sec.: *** Position Open ***
Dir. 2004: Charles Rousselet, N2MZK
Dir. 2004: Jay Eichner, N2PIK
Dir. 2005: Dom Stengele, WA2UJI
Dir. 2005: *** Position Open ***

Upcoming GSBARC Events

Board Meeting – 2nd Thursday 8:00 PM

Oct 14
Nov 11
Dec 9

VE Session – 4th Sunday 12:00 PM

Oct 24
Nov 28

General Meeting – Last Thur. 8:00PM

Sept 30
Oct 28
Nov 18 (3rd Thurs.)
Dec 23 (4th Thurs.)

Open House 12:00 – 2:00PM

Every Saturday @ Town Hall EOC

NETS

Newsline Report -

Monday 7:00 PM 146.685/R

Club Info Net -

Monday 7:30 PM 146.685/R

DX/Contest Info -

Monday 8:00 PM 146.685/R

TOBARES Net -

Monday 8:15 PM 146.685/R

Swap 'n Shop Net -

Tuesday 7:30 PM 146.685/R

10 M Net -

Tuesday 8:00 PM 28.320

REPEATERS

2 M 146.685/146.085 PL 110.9
1 1/2 M 223.860/222.260 PL 131.8
70 CM 440.850/445.850 PL 114.8

WEB SITE

www.gsbarc.org

Mirror Site: www.qsl.net/gsbarc

President's Message

By Walter, KA2RGI

What a month it has been! It seems like when things should slow down a bit so you can catch a breath, things just keep happening.

Well to start off I have an apology for last month's President Message. To all of you that have been so instrumental in helping to keep this club going I want to say a heartfelt thanks for all of your efforts and time of commitment.

I wrote the column last month at a time I was feeling very upset about individuals that had not been active in club activities addressing why things were not getting done and why there was only a few people active in functions and as chairpersons. I wrote the column because of my concerns about the strength of this organization and some items were not correctly worded and some people have taken it the wrong way, as personal attack on them. Please let me say now, that was not my intention. I know there are members who can not assist because of health or other reasons, family or job commitments. To them I want to say. "Thank you for your support". What I was trying to do was get those that were not active, and just sitting back and stirring the pot, to become more active with the organization.

The main thing we have to remember about this organization or any other is COMMUNICATIONS. People have to be able to communicate with each other or nothing gets done. This is what has happened in the past year. The executive board of any organization must be approachable to all of its membership. There will always be some that believe matters should be handled in a certain way or manner. Not everyone will agree but the majority should guide the organization. There is always a few that will feel otherwise. That is the reason for annual elections. That is the time when the majority voices their feelings and elects the next slate of officers.

Things must happen in a timely fashion for the benefit of the whole organization and its membership. A special concern to these matters will be taken as things go forth. What we need now is the ability to move ahead and become stronger as a collection of concerned supporters of the Great South Bay ARC. We need to address the issues and move forward.

We have a special election slated for the Sept. General to fill the terms of the vacated positions within the board. We need the membership to be present at the next General Meeting to vote on the individuals who have stepped up to fulfill the remainder of the terms. We also need the membership to step up and inform Joe, N2IMF and his election committee names of individuals who will run for the positions of the board of the club for 2005. Nominations are now being sort. It is your time to speak up. At the Oct. General Meeting first round of nominations will be read. At the Nov. General Meeting second round of nominations will be read and then the elections for each office. The only positions not up for election are the positions of the 2005 Directors.

(cont.)

Presidents Message (cont.)

Committee chairpersons are appointments of the President and hold those positions only for the term of the President. We continually look for individuals to either assist or chair those committees. The person who is the chair of the committee is the individual who has say who is on their committee. The membership should approach the committee chair if things are not happening with that committee and if no further action is perceived then they should approach the board. It is the recommendation of the membership that all Directors should chair at least one committee.

I will also strive to keep the General Meeting a clear of as much organizational matters as possible from now on, unless it is items that must be brought before the membership as a whole. This means we have to have all committee chairs at the Executive Board meetings and any of the membership that is interested in assisting with the organizational aspects of the club present.

That is the challenge to the membership.... communication and participation.... to your abilities!

See you at the next meeting!



Happy Birthdays in September

Tom, KA2D
Charles, KA2RJV
Carol, KA2VYH
Bob, WB2VYH
Ken, N2ZN

If your birthday is not listed we may not have all the info in our database



GREAT SOUTH BAY AMATEUR RADIO CLUB MINUTES OF THE GENERAL MEETING

Location: Babylon Town Hall EOC Lindenhurst, NY
Thursday Aug 26, 2004

Meeting called to order by Walter, KA2RGI at 9:30 PM.

BOARD MEMBERS PRESENT:

President	KA2RGI Walter Wenzel
Vice President	N2UHR David Wandell
Corr. Secretary	KC2FBV Scott Verity
Treasurer	KA2D Tom Carrubba
Director 2004	N2MZK Charles Rousselet
Director 2004	N2PIK Jay Eichner
Director 2005	WA2UJI Dom Stengele

BOARD MEMBERS NOT PRESENT:

Rec. Secretary	**** Position Open
Director 2005	**** Position Open

PREVIOUS MINUTES: Acting Recording Secretary – Margaret, KB2IDZ

There was a discussion about the vacancies of the Board of Directors. The President Walter read the rules from the Clubs constitution about filling vacancies to the Board.

CORRESPONDENCE REPORT: Corresponding Secretary - Scott, KC2FBV

PO BOX:

Nothing New

Additional:

None

TREASURER'S REPORT: Treasurer - Tom, KA2D

As of MM/DD/YY:

Checking = \$1590.56; CD = \$2813.44; TOTAL = \$4404.00
VE team spent 11.00 for batteries for the tape player and 14.13 for a replacement AC adapter.

Outstanding business; HAMFEST receipts May04, Membership dues collected at meetings KA2D was absent, FD expenses, other club expenses.

COMMITTEE REPORTS:

APPAREL: Chairperson - **** Position Open

Club Hats and T-Shirts are available at the next Meeting. Callsign badges, jackets, and golf shirts require advance orders.

CLUB STATION & EQUIPMENT: Chairperson - Walter, KA2RGI

DX & CONTESTING: Chairperson - Tom, KA2D

For up to the minute info, please check the W2GSB DX Cluster or www.arrl.org or www.contesting.com.

7/30-08/08 YV0: Aves Island (NA-020)

Aug 7-8 National Lighthouse weekend

Aug 21-22 International Lighthouse weekend –

W2GSB/LGT Fire Island Lighthouse, by GSBARC

W2AMC, Horton's Point Lighthouse by PARC

DX CLUSTER: Chairperson - Tom, KA2D

Cluster-up and running. Nothing new to report.

EDUCATION: Chairperson - Walter, KA2RGI

New Technician Classes are to start Sept. 8 at 7:30 PM at the TOB EOC. General & Extra Classes will be scheduled after January.

LIBRARY: Chairperson - Dom, WA2UJI

Nothing new at this time.

MEMBERSHIP: Chairperson - Tom, KA2D

83 MEMBERS (64 FULL PAID, 9 FAMILY, 4 ARRL, 6 COMPLIMENTARY) 7/27/2004 roster is current. Some e-mail address' are not correct. If your information is not correct contact Tom KA2D

NETS:

Newsline Report: NCS - Dave, N2UHR

Nothing new to report at this time

2 Meter Net: NCS - Dave, N2UHR

Nothing new to report at this time

Swap-N-Shop: NCS - Bud, WA2QAV

On hiatus for the summer.

Ten Meter Net: NCS - Brian, N2NGE

No report at this time – Net Continuing for summer

NEWSLETTER - COMPASS: Chairperson - Gene, N2TZX

NOTE: Deadline to submit material for the Compass is the Saturday after the Board Meeting. Nothing to Report

REPEATERS: Chairperson - Walter, KA2RGI

146.685: Had some work done on the 2M repeater on the Sunday after Field Day with the assistance of K2CX and it seems that most of the problems have been solved. The added duplexer seems to have solved most of the issues with Central Alarm's RF getting into our repeater. Still working on how to best handle the remaining issues because some users are still having some problems with the system because it is not seeing low power radios.

223.860: offline

440.850: offline - Receiver needs work

SPECIAL EVENTS:

Field Day: Chairperson - Joe, N2IMF
Nothing to Report

Hamfest: Chairperson - Walter, KA2RGI
Nothing to Report

Air Power Museum: Chairperson - Bud, WA2QAV
Event will most likely occur in Sept.

Club Picnic: Chairperson - Walter, KA2RGI
Club Picnic is on Aug 28th from 11AM – 6 PM Need coordination of food to be brought. Contact Walter, KA2RGI.

End of the Year Party: Chairperson - Walter, KA2RGI
Nothing to Report

VE SESSIONS: ARRL Liaison - Tom, KA2D
Next VE is Sunday, Aug 22 at the EOC at 12 Noon.
This is also Fire Island weekend. We will need to confirm a proper VE team for this session and insure we have a crew for breakdown at FI.

Last VE session on July 25 served 16 candidates. We had a good session despite a late start due to re organizing the test folders from the new general question pool. The AC adapter for the tape player was not working. Len W2FX went out and purchased batteries so we could administer the Morse Code tests. We had a candidate who came from NJ and 4 locals. Tom KA2D purchased a replacement AC Adapter from radio shack during the week. As usual we had a good VE team. Thanks

WEBSITE - HOME PAGE: Chairperson - Tom, KA2D
KA2D reports that the club web page has been updated.

SPECIAL COMMITTEES:

Antenna Committee: Chairperson - Open Position
Nothing new to report

Open House: Chairpersons - Dave, N2UHR
Nothing new to report. On Hiatus for the summer.

Public Relations: Chairperson - Walter, KA2RGI
Nothing new to report

Technical Committee: Chairperson - Walter, KA2RGI
Nothing new to report Still looking for members to assist.

ARES/RACES: EC/RO - Walter, KA2RGI
Meets 3rd Thursday of the month at EOC (unless otherwise noted)
TOBARES Net meets every Monday at 8:15PM
See <http://www.tobares.org> for complete event listing.
Aug. 8 – BNL \ NWS Open House from 11AM to 3PM
Sep. 12 – Babylon Village Beautification Society Country Fair

GUEST SPEAKERS & PROGRAMS: Chairperson - Dave, N2UHR
August – Presentation on Tesler Coils. We need the use of a LCD Projector for the PowerPoint Presentation that goes with the talk.
September – Packet Demonstration

HEALTH AND WELFARE: Chairperson - Scott, KC2FBV

OLD BUSINESS:
Continued discussion of trailer.

NEW BUSINESS:

Walter read from the constitution about the vacancies. There are two positions available.

Walter showed that there were enough people at all meetings to preclude a quorum for any and all votes.

Tom, KA2D had a comment about all that was agreed upon was bogus. He has a report that he made up of what he feels is wrong.

Adam had a question about how the minutes should be given to the membership, as to whether they should be read, or just agreed that they were published.

It was said that it was up to the membership as to how they want to do. There were newsletters, which were not with correct information and should go up on the website.

Walter spoke of his challenge out to the membership to take part in what is going on with their club. There were personal things in life and that put some things on hold. It has to be set by the club to change those things that are wrong.

Tom says that it is the entire membership fault that the minutes are wrong and never have been corrected.

The newsletter was a big issue as some had said they didn't receive the newsletters for whatever months. The main problem is that people aren't getting the newsletter and no one is speaking up as to why they are not being sent out.

Tom, N2MIG addressed about his letter given to the board and questioned about the expenditures such as the hamfest, treasury etc.

Inquiry of the hamfest money and details of what we did.

Question came up on invoices of apparel.

No Budget for refreshments. There should be donation money in a can for those who want refreshments for the next meeting.

The only thing that the President has to say is to have the membership think of the two vacancies and remember that the club picnic is from 11 am to 6 pm on Sat.

As per Tom, KA2D there are things that need to be set up and get ready for all to have a good time_ People should be willing to come down and help set up and cook and do cleanup.

Setup should be at 10 am. The Membership has to be there and volunteer to make the club work. One of the biggest positive thing about this club is that we are so diversified and can do different things to make the club better.

Meeting was closed at 10:50.

Respectfully submitted by,
Margaret Mielko, KB2IDZ
Acting Recording Secretary

DX CLUSTER: Chairperson - Cluster-up and running. Nothing new to report.



**GREAT SOUTH BAY AMATEUR RADIO CLUB
MINUTES OF THE EXECUTIVE BOARD MEETING**

Location: Babylon Town Hall EOC Lindenhurst, NY
Thursday Sept 9, 2004

EDUCATION: Chairperson - Walter, KA2RGI
New Technician Classes are to start Sept. 8 at 7:30 PM at the TOB EOC. General & Extra Classes will be scheduled after January.

Meeting called to order by Walter, KA2RGI at 8:07 PM.

LIBRARY: Chairperson - Dom, WA2UJI
Nothing new at this time.

BOARD MEMBERS PRESENT:

President	KA2RGI Walter Wenzel
Vice President	N2UHR David Wandell
Corr. Secretary	KC2FBV Scott Verity
Director 2004	N2MZK Charles Rousselet
Director 2004	N2PIK Jay Eichner
Director 2005	WA2UJI Dom Stengele

MEMBERSHIP: Chairperson -
84 MEMBERS (64 FULL PAID, 9 FAMILY, 4 ARRL, 6 COMP)
Welcome new member Tom, KC2MOX

NETS:

Newsline Report: NCS - Dave, N2UHR
Nothing new to report at this time

2 Meter Net: NCS - Dave, N2UHR
Nothing new to report at this time

Swap-N-Shop: NCS - Bud, WA2QAV
Back up online.

Ten Meter Net: NCS - Brian, N2NGE
No report at this time – Net Continuing for summer

BOARD MEMBERS NOT PRESENT:

Rec. Secretary	**** Position Open
Director 2005	**** Position Open
Treasurer	KA2D Tom Carrubba

NEWSLETTER - COMPASS: Chairperson - Gene, KBTZX
NOTE: Deadline to submit material for the Compass is the Saturday after the Board Meeting.
Not Submitted at board Meeting

OTHER CLUB MEMBERS PRESENT:

Acting Recording Secretary: Margaret KB2IDZ,
Michael N2QXK, Tom N2MIG, Adam KB2TCH, Barbara KC2JNX, PattiLynn KC2AUX, Frank K2LI, Spin KC2EGK, Bud WA2QAV, Artie W2AVA, Phil N2MUN, Frank WA2LUY, Leo W2CJN, Wally W2FBB, Andy KC2GWP, Danny WB2COO, John K2IZ, George N2GA, Alan N2CRV, Ken N2ZN, Paul N2SLM, Cliff KC2EXP, Joe N2IMF

REPEATERS: Chairperson - Walter, KA2RGI

PREVIOUS MINUTES: Acting Recording Secretary – Margaret, KB2IDZ

SPECIAL EVENTS:

Field Day: Chairperson - Joe, N2IMF
Nothing to Report

Hamfest: Chairperson - Walter, KA2RGI
Cliff (KC2EXP) is going to Chair the Hamfest and Joe volunteered to help

Air Power Museum: Chairperson - Bud, WA2QAV
Nothing to Report

End of the Year Party: Chairperson - Walter, KA2RGI
Nothing to Report

CORRESPONDENCE REPORT: Corresponding Secretary - Scott, KC2FBV

Additional:
None

TREASURER'S REPORT: Treasurer - Tom, KA2D

As of 08/12/04:
Checking = \$1549.04; CD = \$2813.44; TOTAL = \$4362.48
CD rollover date 8/7/04, next rollover 11/6/04
Outstanding: Hamfest expenses/deposit, FD expenses.
Membership, 50/50

VE SESSIONS: ARRL Liaison -

COMMITTEE REPORTS:

APPAREL: Chairperson - **** Position Open
Club Hats and T-Shirts are available at the next Meeting.
Call sign badges, jackets, and golf shirts require advance orders. Remainder of the Special Order Club Apparel should be here for the next General Meeting.

WEBSITE - HOME PAGE: Chairperson -

CLUB STATION & EQUIPMENT: Chairperson - Walter, KA2RGI

SPECIAL COMMITTEES:

Antenna Committee: Chairperson - Open Position

Open House: Chairpersons - Dave, N2UHR
Back up and running 12 – 2 Sat afternoons

Public Relations: Chairperson - Walter, KA2RGI
Nothing new to report

Technical Committee: Chairperson - Walter, KA2RGI
Nothing new to report Still looking for members to assist.

DX & CONTESTING: Chairperson -
For up to the minute info, please check the W2GSB DX Cluster or www.arrl.org or www.contesting.com.
Check in into W2GSB DX Cluster
Olympics SE SX2004 and SY2004: special prefixes till December YI9KT: Iraq * by SP8HKT
till December YI9MC: Iraq * by KC4MC

ARES/RACES: EC/RO - Walter, KA2RGI

Meets 3rd Thursday of the month at EOC (unless otherwise noted)

TOBARES Net meets every Monday at 8:15PM

See <http://www.tobares.org> for complete event listing.

GUEST SPEAKERS & PROGRAMS: Chairperson - Dave, N2UHR

September – N2IMF confirmed the Packet Demonstration to be given by Charlie Alfano, WA2GUG.

HEALTH AND WELFARE: Chairperson - Scott, KC2FBV

Gil Hanse's Father has passed away.

John (KB2ZGS) has found out he had a tumor on his right arm. Dr.'s did a bone density test and that made his condition frail. 2 weeks ago he fell and broke that arm. Dr's had to put a rod in his arm from the elbow to the shoulder to keep the arm in place. We wish John a speedy recovery.

OLD BUSINESS:

Nothing Discussed.

NEW BUSINESS:

Phil N2MUN was given the floor for a 30-min discussion of what can be done to help the club get back on track. Phil was here as the Affiliated Club Coordinator of NYCLI.

Handouts were given out to help outline his talk.

There are open positions on the Board... The membership needs to fill those positions by the next general meeting. Also a Chairman for the nomination committee needs to be picked.

There are 10 chair positions vacant as of right now. These need to be filled. If anyone is interested in chairing a committee, then see Walter.

Back in May it was brought up that Steve cannot fill his position. Has been vacant since Nov. Margaret (KB2IDZ) offered to step in as the acting Recording Sec.

Margaret is still interested in taking on the position. No one else in the membership present was interested in the position. At the next general meeting the membership will decide if she will be elected into the position.

Another position open is the Director for 2005. Frank (K2LI) and John, (KC2JGH) want to take the directorship. Again a vote will be taken at the general meeting.

There are a whole bunch of standing committees that need people to take them over and become the chairperson and make a committee to work the committees. A few of the committees in need of a chairperson are: apparel, dx contesting, hamfest, membership, antenna, etc.

Anyone interested let Walter or someone on the Board know that you want to help and take a position.

Next item: Letter presented by Tom (N2MIG) which needed to be addressed and its was agreed upon and a full accounting has been sent to the treasurer. There was a total of \$ 869. Made from the hamfest. Vendor spaces = \$ 370, Walk in admission = \$444, 11 people who supplied their call sign to add to our list = \$55 which all totals \$869.

There were some 50/50's that were not reported and some meetings that did not have any 50/50 meetings.

Minutes of meetings are needed to be read by the membership to report accuracy. There is a guide for the recording secretary to follow, and a listing of the chairperson with who should be giving the reports for each committee. Sergeant at Arms is someone who is there to help run the meetings and follows Roberts Rules.

As per the validity of the minutes of the meetings, they should be read or printed in the compass. And the membership should vote on what is correct on the minutes.

The Board Meeting is the place to discuss and hammer out all items as business as it pertains to the club. A suggestion was made that each chairperson hand in a written report to the recording secretary of what is going on with their committee.

Correction of Minutes of past meetings brought up by Tom (KA2D). There are no ideas of how to correct this error. People who do not get the newsletters should speak up and let someone know so that they can be informed and updated each month. If anyone has any ideas as to how to correct any problems that was not accurate, should say something to Walter and help correct this problem.

Tom's (KA2D) resignation as presented to the Board on August 27th. Two letters were sent one to the membership and one to the Executive board and to Phil N2MUN and George Tranos (N2GA).

The resignation was not wanted to be taken but now there are other things that need to be addressed. VE Liaison is needed as is a few other positions.

This again will be taken up with the membership at the General Meeting. There will still be VE sessions every fourth Sunday of the month...But a new Liaison is needed.

Treasurer is also a position needed to be filled. We are asking the membership to talk among the members to see if anyone will be willing to take on the position of treasurer. Only one person has spoken up and that is Tom (N2MIG). An election will be held at the General Meeting to fill the immediate positions.

On Sept 4th, Walter went over to Tom Carrubba's house and picked up all equipment, records, funds, and bank records check book, keys, etc. Tom has a receipt for everything.

Bud, WA2QAV is volunteering to take of the position of the QSL Manager to send out QSL cards from the Fire Island Lighthouse and any other QSL cards needed to be sent out.

DX Cluster is now back online and is at Walter's house. The IP Address is telnet at 24.182.233.93 or RF connection is still the same.

The DX Cluster has been updated with 85K.

Only 2 other antennas are needed to be picked up from Tom yet. All the towers are now being stored in 1047.

The equipment list is another issue needed to be taken care of by the new treasurer. Our insurance has lapsed and we no longer have insurance on any of our equipment. Now we are in jeopardy if anything happens to any of our equipment.

The only committee needs to be chaired now is the Nominating Chair. Only one person has stepped up to take on that position and that is Joe (N2IMF). He has taken on the position.

Refreshments: What should be done for money for refreshments for as the refreshments is not only for the General meetings but for any and all meetings and other things going on within the Meeting room. A motion was brought up to spend \$40 as a budget for refreshments. Joe made the motion for a one time shot for \$40 for getting the water, soda etc. for the next meeting.

Executive Board Meeting is adjourned at 10:22

Respectfully submitted by,
Margaret Mielko, KB2IDZ
Acting Recording Secretary

A vote was made and passed by the executive committee.



K2BJ.COM - Grounding Concepts and TechniquesK2BJ.

What is Ground?
RF Ground and The Ground Plane
How Can I Tell if I Have A Good Ground?
Ground Loops

What is Ground?

A ground is defined as a low-impedance electrical connection to earth. Also a common reference point in electronic circuits. All transmitting antenna systems need a properly functioning ground system to provide for proper operator safety and efficient radiation of the maximum amount of RF energy into the air. There are three principle forms of ground, the last two more appropriate to operating in the mobile environment:

Power Line Ground: is the ground you see at the power box where your home's electrical service is connected. It is required by law and serves to provide general, overall electrical safety for your building and property.

DC Ground: (Also called "Safety Ground") is familiar to the amateur as the strap or wire placed from equipment to a convenient cold water pipe or ground rod to eliminate the hazard of electrical shock. In your car it is the wire you connect from the ground stud on the rear of the radio to the negative terminal of the battery, or ideally the engine block.

RF Ground: is a low-impedance path for RF to reach earth and which is designed to dissipate rather than radiate RF energy. Generally, though not in all cases, the DC Ground and the RF Ground are served by a common connection. In an automobile this point is usually the car frame or chassis, the car body or engine block.

RF Ground and The Ground Plane

In the environment of the mobile antenna system many factors contribute to the radiation of an excellent RF signal, but none more than the quality of the RF ground. The RF ground represents the "unseen half" of your antenna system. The visible half is the whip or other radiating element. Failure to construct a good RF ground inhibits the efficiency of the system's radiation and can present danger to the operator through RF feedback.

In mobile installations, the chassis or body represents a ground plane: a common circuit return or reference point for your signal. The signal radiates outward from the radiating element and flows back to the radio via the ground plane. Then the polarity switches and this process reverses, back and forth, in synchronization with the transmitted sine wave. You can see, then, that if the car itself represents half of the antenna, then it's pretty important that the connections to it be made solidly and properly.

In constructing an efficient antenna system for your vehicle always make sure that your frame or car body are at RF ground by connecting them electrically and physically with the engine block. The engine block acts like a terminal strip or "bus" for your car's electrical system: the negative terminal of the battery and all other electrical grounds are connected to it as the central meeting point. The engine, in turn, is bound to the vehicle chassis through the engine mounting bolts, though not necessarily grounded! In today's modern vehicles insulating elements, i.e., rubber motor mounts, are used to cushion vibration. At DC a solid path to ground exists, and even if this path should somehow fail, the car's body ground can act as a reserve. At RF frequencies however, an acceptable DC ground can sometimes present such a high impedance to your antenna system that it is, in effect, no ground at all!

To ensure your mobile antenna environment is at RF ground, simply bind the block to the chassis with tinned copper braid, as shown in the photos above. Use short runs so as to avoid introducing any inductive reactance which will impede the flow of the RF current to ground.

How Can I Tell if I Have A Good Ground?

Actually, it's usually a lot easier to tell when you don't! Here are some of the signs that the quality of your mobile's RF ground may be lacking: Difficulty or inability to tune to an acceptable SWR match with your manual or automatic antenna tuner. (Assumes you have confirmed in advance that the antenna is already resonant "off the system".) Noticing a waving up and down of the SWR reading on the meter during transmitting while the vehicle is in motion. Noticing that the radio is "kicking", (cutting out and turning itself off) during transmission, an indication of significant RF feedback. Getting an RF "bite" on the radio equipment or code key during transmission, an indication that excessive RF energy is feeding back from the antenna system or that the system is floating above ground potential..

Remedies require a review of how your antenna system is mounted to the car, specifically:

Is there a good physical and electrical connection between your antenna's ground and the vehicle frame/body? If utilizing the body as the ground plane is there isolation from RF ground which may be causing the RF return path to float above ground potential? Do you have faulty shield connections along your transmission line? Are ground loops present in your system? Based upon your assessment of the above, take action as necessary to clean up any weak points you uncover.

Ground Loops

Ground loops can be inadvertently created when ground connections on several pieces of equipment are connected in series, rather than to one single, centralized ground point. Ground loops happen in trying to economize when short on braid or through taking the "easy way out" while making quick connections. As an example, visualize a station consisting of three pieces of equipment: a radio, amplifier and antenna tuner. Loops could very easily be created by connecting the ground connections of the radio to the amplifier, then the amplifier to the antenna tuner, and finally the antenna tuner to the ground stake. These series connections promote miniature loops (circuits) between each individual piece of equipment, allowing RF current to circulate at differing intensities, which are another source of radiated RF noise. As the ground circuits "float" above zero potential they never actually draw down to true ground (where, theoretically, zero RF current flows). A dangerous shock hazard to the operator can result, but is easy to avoid through good design practices. To avoid ground loops, each of the three pieces of equipment should be tied to the same ground point. In this design, a run of flat tinned copper braid should be run from the ground terminal of each individual piece of equipment directly to the station's DC/RF ground. In the case of your home, this might represent your ground stake buried outside with, again, as short a run of flat tinned copper braid as is practical tying to it from the equipment.

Ground Loops in The Mobile Environment In your vehicle ground loops are often unknowingly created as a consequence of frantic attempts to ground out noise sources by braiding "everything" one can think of to the nearest metal available. This is most likely when working under the hood to suppress noise in the antenna and power supply systems, but can also occur when your antenna is inadequately mounted to the frame/chassis. In reading the nature of the formation of ground loops above, you can see how, in braiding to the nearest available metal, series connections could very well have crept into your design.

Remember: if you are not at ground potential, RF currents may still be circulating within your ground system which may then be re-radiated as RF noise that can be received by the antenna system.

To eliminate any loops in your ground, the concept of applying a centralized ground point, as described earlier for a home station, applies to the mobile configuration as well. In adopting a single point for your vehicle, use the frame/chassis as your "ground stake", if you will. It is the common metal to all other metal points of your vehicle (though additional bonding techniques may ultimately be required), and provides an excellent ground plane for your vertical element to work against.



GSBARC 2004 VE Schedule

Jan 18-3:00 PM *HRU 2004 East Woods School, Oyster Bay, NY

Feb 22 Babylon Town Hall EOC – 12 Noon

March 28 Babylon Town Hall EOC – 12 Noon

Apr 25 Babylon Town Hall EOC – 12 Noon

May 27 Babylon Town Hall EOC – 12 Noon

June **NO VE** - Field Day -6/26-6/27 Babylon Town Hall

July 25 Babylon Town Hall EOC – 12 Noon

Aug 22 Babylon Town Hall EOC – 12 Noon

Sept 26 Babylon Town Hall EOC – 12 Noon

Oct 24 Babylon Town Hall EOC – 12 Noon

Nov 28 Babylon Town Hall EOC – 12 Noon

December **NO VE** - *Season's Greetings*

Committee Chairpersons	
Club Apparel –	Ken, N2ZN
Club Station/Equip –	Position Open
DX/Contesting –	Position Open
Education –	Walter, KA2RGI
Hamfest –	Position Open
Library –	Dom, WA2UJI
Membership –	Position Open
Newsletter –	Gene, KB2TXZ
Home Page –	David, KC2GWO
DX Cluster –	Tom, KA2D
Repeaters –	Walter, KA2RGI
VE Sessions –	Position Open

CLUB NET SCRIPTS

If anyone is interested in a copy of the basic 2 meter Monday night net script for GSBARC give Dave, N2UHR a call on w2gsb/r, home: 631-842-6340, or via email at: n2uhr@arrl.net , or contact Walter, KA2RGI, 631-957-0218, or via email at: ka2rgi@arrl.net.

'73 de Dave, N2UHR!

Great South Bay ARC
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