



Ottawa Amateur Radio Club

Groundwave

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Check out our Web Page: www.oarc.net

December 2007

A good time was had by all at the tour of the Military Communication Museum. Mike Kelly has an excellent description of the tou in his column on page 4.

The club is planning another project this winter. It will be a software project based on the PICAXE microprocessor. This will be a great opportunity to learn about microprocessors if you are unfamiliar with them. Experts will be available to help out. The final software project will be up to each member but there will be some common projects, such as a Morse code generator.

The OARC is again entering the RAC Winter Contest and will be using the RAC call sign VA3RAC. For details on how to participate see page 6.

The December meeting is Trivia Night again. See the details on page 6.

See you at the meeting and if we don't get the Groundwave out in time, Merry Christmas and Happy New Year.

Ian Jeffrey, VE3IGJ
Editor



DECEMBER MEETING 7:30 pm, December 12th in the Honeywell Room at Ottawa City Hall

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Articles may be submitted for use in this publication provided that they portray events or activities that promote Amateur Radio. Letters and comments are also welcome. Submissions may be made by mail addressed to the Editor care of the OARC, or by e-mail to "ve3igi@rac.ca". Deadline for submissions occurs three days after the regular monthly meeting of the OARC.

Please support your local radio organisations. They support you!

Club Information

The Ottawa Amateur Radio Club Inc. is an association of Radio Amateurs devoted to the promotion of interest in Amateur Radio communications in the National Capital Area and to the advancement and achievement of club members.

Regular Meetings of the OARC Inc. are held on the second Wednesday of each month (except July and August) in the Honeywell Room (2nd floor of the Old Teacher's College) of Ottawa City Hall (formerly Regional Municipality of Ottawa Carleton Headquarters) on Lisgar Street. Meetings commence at approximately 19:30 hours. Further details about each meeting is elsewhere in this publication.

Executive Meetings of the OARC Inc. are normally held on the first Wednesday of each month at 19:30 hours. Contact the President to confirm the date, time and place of the next meeting.

The CAPITAL CITY FM Net meets every Monday (except some holidays) at 20:00 hours on the club repeater **VE2CRA** to pass traffic and to make announcements of interest to Amateurs in the National Capital Region.

The SWAP Net is a service provided and conducted by Ed Seib, VA3ES. This feature appears on the Capital City FM Net. To list items and make inquiries, call Ed at 613-738 8924 or e-mail him at va3es@rac.ca. Also available on the web: <http://www.igs.net/~swap>.

The POT-HOLE Net is a SSB/HF net sponsored by the Ottawa Valley Mobile Radio Club and is conducted every Sunday at 10:00 hours on **3.760 MHz**. All amateurs are welcome to check in.

The POT-LID CW Net is an informal slow-speed CW net sponsored and conducted by Ed Morgan, VE3GX, and meets every Sunday, except during July and August, at 11:00 hours on **3.620 MHz**, to promote interest in CW and CW procedures.

The QCWA CHAPTER 70 Net meets every Monday evening at 19:30 hours on repeater **VE3TEL 147.030(-)**. You do not have to be a QCWA member to participate.

The Ottawa Valley VHF/UHF SSB Net is sponsored by the West Carleton ARC. Look for it every Tuesday night (except the first Tuesday of the month) around 21:00 on **144.250**, (roll calls after net on 50.150, 432.150, 222.150, and 1296.100.) Horizontal polarization is preferred.

The Ottawa Amateur Radio Club bulletin "Groundwave" is published and distributed to club members by mail. Publication dates may vary but it is hoped that the bulletin arrives at its destination before the events listed in it have expired. The bulletin is not published for July and August when meetings do not occur. Every effort is made to provide accurate information in the bulletin, however we are all human and mistakes can be made. The OARC accepts no responsibility for any damages that may result from this. The opinions expressed in this bulletin are those of the author.

Voice (VHF) 146.94/146.34 100Hz CTCSS required
 (UHF) 443.300/448.300

VE3TVA Amateur Fast Scan Television Repeater
 Video/audio beacon & input 439.25 MHz (audio sub. 443.75)
 Video/Audio output 914 MHz (FM)

IRLP Node 2040 146.94/146.34 (VE2CRA/VE3RC)
 (Code 411 for info) (Code 204 for activity)
 (Code 88 for time)

For further information please contact the Repeater Chair.

Note: The IRLP link is not connected to ECHOLINK. Please do not try to connect using the alpha keys on your keypad. It just confuses the operator.

Note: The IRLP link is disabled during the Capital City Net each Monday. It is disabled from 2000 to 2145 Mondays except for May to August when the link is disabled from 2000 to 2020.

VE3TEN

Tuning in the beacon so that it makes sense requires you tune to **28.175** on **cw** and read the tone that is there . The spaces between the elements are the higher tone. If that doesn't work, tune to **28.175.28** on **lower sideband** for better results.



November Minutes

The meeting was opened at 19:30 by the president, Dave, VE3TLY. There were 36 present including four guests: Ralph Cameron, VE3BBM; Joe Parkinson, VE3JG; Marcel Lemay, VE3FNG; and Graham Eatherley, VE3GJE.

Dave made several announcements including the upcoming museum tour. The December meeting will be Trivia Quiz. The OARC will be using the RAC call-sign VA3RAC for the RAC Winter Contest on December 29. Dave announced that club member Dave Goodwin, VE3AAQ, will be the new RAC president as of January 1, 2008. There were no applications for the Joe Norton award this year. The Groundwave (both mailed and emailed versions) will be terminated for those who have not renewed their memberships.

Hases and Wants: Ken Willing will be selling much of his equipment off on the swap net. Gerry Dillon is looking for someone to climb his tower to do a minor repair.

Show and Tell included a certificate from AMSAT-NA to Clare Fowler for his help in re-creating the Sputnik anniversary transmissions and a photograph of the OARC Field Day 2007 crew from Greg Danylchenko presented to RAC headquarters.

The evenings' presentation was by Dave Conn, VE3KL, entitled "Impedance Measurements: Old and New Equipment and Techniques". In addition to the presentation Dave demonstrated some equipment including a General Radio 1650A bridge, an Aim 4170 impedance meter, and a Telepost LP-100 digital vector wattmeter.

Dave Conn made a further presentation on the proposed club project using the PICAXE microprocessor and a signup sheet for those interested was circulated.

The 50/50 draw of \$22.25 was won by Scott Murphy. The meeting was adjourned at 21:45.

Dates to Remember

2007

- Sep. 1 Hamfest, RAC AGM, and Forum
- Sep. 30 Membership Renewal Deadline
- Nov. 1 Joe Norton Award Subm. Due
- Dec. 29 RAC Winter Contest

2008

- Feb. 9,10 Canada Ski Marathon
- Apr. 9 Homebrew Night
- Jun. 11 OARC AGM and Elections
- Jun. 28,28 Field Day
- Jul. 1 RAC Canada Day Contest

Amateur of the Year

On 16 October 2007, the RAC Board of Directors unanimously chose John Sluymer, VE3EJ, as the 2006 Radio Amateur of the Year. John, who lives in Grassie ON, is Canada's best-known and most accomplished Amateur Radio sportsman. Over and above his regular globe-leading scores in conventional contests, in July 2006, John and team-mate Jim, VE7ZO, won the gold medal at the World Radio-sport Team Championship (WRTC) in Brazil, against 50 other teams of Amateurs from around the world.





mk's Words

If you missed the trip to the Military Communications and Electronics museum in Kingston on the 17th you missed quite a trip. We started a little after 8 am after re-grouping to minimise the number of cars needed. It seemed there was a rule somewhere that there had to be a Dave in each vehicle. With AE, KL, KMV and TLY there was no shortage. It was decided to take a less boring route than 417-416-401. We did county roads to Franktown, then followed 15 through Smiths Falls and down the rest of the way. Despite having at least one navigator per vehicle and way more GPS gear than we needed, nobody got lost or even confused. On the way down we kept up a QSO on CRA until about Smiths Falls, then switched to '52 for the rest of the tour. Most of the conversation was about how much distance there was between the head and tail of our little group. I was traveling with VA3AE. We made the first stop within about 500 metres of the start. It seems there was a caffeine shortage on board that had to be repaired before we could go any distance. Even with that little delay, we were pretty much nose to tail by the time we got to Kingston.

The museum starts off with pre-electronic (pre-electric) communication systems, such as semaphore signals and the heliograph. It quickly moves on to the systems of the two world wars as one would expect. I was surprised and pleased about how much there was about the post-WW II communications scene. It covers the cold war period, the radio equipment of peacekeeping missions around the world and of the gulf war. The display ends with an idea of what modern forces are using in the field today. Today's news is tomorrows museum subject, literally.

After the tour we found a place to do a large quantity of pizza, something like a group photo, and more simultaneous QSOs than a contest on 20. By the time we were ready to head off into the sunset, the sun was actually setting on our "morning" outing. We took various routes back, with most opting for the 400 roads home. In the VE3AE machine we tried some CW, but it was tough sledding with most ops on the band into contest-

ing. The radio control head was in the front of the bus, with the ops in the back, which didn't help. We did all get in a little high speed receiving practice, though. By the time we got home it was around 18:00. It was a very full day. Many thanks Dave. Let's do it again soon.

If the MC&E museum is old news to you, where would you like to do a tour? The Prescott - Russell ARES group, a much smaller bunch than the OARC, did a tour to Dayton last year. There are a lot of interesting places we could come up with as a group. Maybe not all of them would be accessible (CSIS/CFS Leitrim for example). How about the Diefenbunker? How about the Communications Research Centre at Shirley's Bay. We once toured the CHUM broadcast centre in the market, how about the CBC? Although there isn't much electronics content, the Air Force museum at Trenton is a pretty interesting place. For electronics content the Hammond museum would be hard to beat. All these places are more interesting when toured as a group, because within the group there always seems to be someone who can add to the picture beyond what the tour guide can say about the items in front of you. Like I said, where to?

In more general terms, lets do more stuff outside of the meetings. The 2008 club project is now officially launched, and I will have more to say about that next time, as I'm sure will Dave, VE3KL. I'm heading out to work the Tall Pines car rally. After that is another trip to Colledgeville and then a break until the 160CW contest. See you - somewhere outside the hamshack.

mk VE3FFK

Laws of the Natural Universe

Law of Logical Argument

Anything is possible if you don't know what you are talking about.



Ham Radio on Expeditions

Brainteaser

This month's puzzle:

Nyrab, a ham, wants to get his repeater project finished in 30 days and immediately hires 15 hams to begin work. At the end of 24 days, the work is only half done. Assuming that everyone works at the same rate, how many additional people must he hire to finish the project on time?

Send your answers to editor@oarc.net.

Last month's puzzle:

Two brothers sold a herd of sheep. For each sheep they received as many dollars as the number of sheep in the original herd. The money was divided as follows: the older brother took ten dollars; then the younger brother took ten dollars; next the older brother took another ten dollars; and the younger brother took another ten dollars; and so on. At the end of the division, the younger brother, whose turn it was, found that there was less than ten dollars left for him. He took what remained. In order to even things up, the older brother gave him his penknife. How much was the penknife worth?

Answer: Congratulations to Bryan Campbell who got the correct answer of \$2.

Silent Key

VE3CDM, Thomas Atkins (Oct.25, 1925- Sept. 18, 2007)

A post-war immigrant from Britain, Thomas Atkins, a lawyer by training, quickly became an integral figure in the Ontario ham radio scene. President of his local association for several decades, he achieved broader recognition as the leader of the Canadian communications team that monitored the Canada-USSR transpolar ski trek in 1988. For that trip, 6 members of a joint Soviet/Canadian expedition crossed the North Pole on skis. Amateur Radio Operators provided daily communications, and OSCAR 11 (Orbiting Satellite Carrying Amateur Radio) satellite's "Talking Computer" relayed position information to the expedition team every 100 minutes !

Radio is the only way to keep in touch with the modern world from the remotest of the places. The first ham radio operator to cooperate in an expedition was American Radio Relay League member Don Mix (call sign 1TS). With his radio equipment in tow he accompanied Donald B. MacMillan to the Arctic on the Schooner Bowdoin in 1923.

Extraordinary explorer and naturalist Thor Heyerdahl in the year during his famous Kon Tiki voyage through the Pacific Ocean used amateur radio equipments to communicate from his small reft on the high sea. Throughout the voyage, Thor along with the five member crew collected meteorological and oceanographic data and sent them to the USA via ham radio stations scattered around the globe. In fact the crew kept in touch with the outside world through ham radio stations only. It was the sole sign of their being present in the modern world. Even nowadays when the professional communication system is getting hundred percent reliable, navigators are found to use ham radio equipments, because ham radio has got its own advantages too!

During the third Indian expedition (1983-84) to Antarctica, the Indian Amateur Radio Station VU2IF/ Maritime Mobile-3 became operational from the expedition ship "Finnpolaris" on 4th December, 1983. The station was operated by radio amateur Dr. Ashutosh Singh, VU2IF, the father figure of Delhi hams and an active worker of Amateur Radio Association, New Delhi.

The Indian added another chapter to Naval Maritime history when it touched the shores of Gulf in 1991. INSV-Samudra, the 13 metre long and 17 year old fibre glass yacht started its expedition on September 21, 1991 from Cochin and sailed up to Muscat (Oman) and Abbas (Iran). The speciality of the expedition was that and the yacht was skippered by S.B. Anand VU2SBA). They were in touch with their families and their HQ via ham radio.

Sources:

Department of Ocean Development, Technical publication No. 3, p-265-266.

ARRL Handbook, 1993.

Science Reporter, May 1988, pp 290.

RAC Winter Contest

RAC Winter Contest - December 29, 2007.

Are you looking for a little diversion during the holiday season, something to draw you away from a table loaded with turkey, mashed potatoes and fattening desserts? Do you need a little time away from the in-laws - time spent doing something you love to do ?

If this sounds like you, then have you considered signing up to operate VA3RAC, the official Ontario RAC station from 0000UTC to 2359 UTC, December 29, 2007 (7pm Dec 28 to 6:59pm Dec 29, 2007)? The OARC will once again, this year, sponsor VA3RAC. Its great fun, a low pressure contest where everyone is your friend. No one is on your case to take out the garbage, or to tell you that you put on a few pounds since they saw you last.

The RAC Winter Contest Rules are found elsewhere in the Groundwave. Look them over, and you=ll see that it=s a simple straightforward contest. All bands (except WARC, 12, 17 & 30 metres) are used, as are phone and CW. It is preferable, but not mandatory, that you use the official RAC software (aka CANADAY Contest Software) to log your contacts and it is available for free download from:

http://www.qrp-canada.com/wp/?page_id=41

If you feel you need a little help getting into the contest scene, a tutorial is available from:

<http://www.mapability.com/ei8ic/noscript.html>

As we cannot coordinate our contacts and in order to avoid Duplicates (i.e. Dupes) we call ACQ RAC Canada Winter Contest@ and this allows the other station to look after Dupes.

I=ll be co-ordinating operators, and bands, as there cannot be more than one operator per band at any given time. I=ll also consolidate the loggings into a single log for submission.

If you are interested in operating VA3RAC, send me an email with your preferred operating time(s), bands and mode to:

ve3ytz@rac.ca or call me at 613-236-9291

and I=ll help get you away from that second piece of fruit cake.

73

Greg Danylchenko/VE3Ytz

Trivia Night

Trivia Night—form your teams, and make a noisemaker

It's that time again! The December 12th meeting will be Trivia Night. Instead of listening to a speaker, you will be challenged to answer a broad range of questions related to Amateur Radio. This year, you can either play individually, or else form teams of any manageable size (max 4 players). Prizes will be given to teams who answer the most questions correctly and to runners-up.

Another twist this year is that each team or individual will need to come to the meeting with a noisemaker of some kind, used to signal that you have the answer to the question. Your noisemaker could be as primitive as a boy scout whistle or as complex as a buzzer circuit. If you forget your noisemaker, don't worry—one will be assigned to you. However we're not promising anything dignified (think New Year's Eve blowers, rubber duckies, doggie bells...).

Once again we are fortunate to have Richard, VE3UNW, as our moderator, so the evening promises to be great fun as always.

P.S. The added benefit of bringing your own noisemaker is that you can enter it in the micro-home-brew contest immediately after the trivia questions are done.

See you there—have fun!

Greg Danylchenko/VE3Ytz

2007 RAC CANADA WINTER CONTEST



In December each year, Radio Amateurs of Canada (RAC) sponsors the Canada Winter Contest. Amateurs all over the world are invited to participate.

Contest Period: 0000 UTC to 2359 UTC December 29, 2007. Next year the contest will be held on December 27, 2008.

Bands and Modes: 160, 80, 40, 20, 15, 10, 6 and 2 metres, CW and phone (SSB, FM, AM, etc.)

Suggested frequencies: CW – 25 kHz up from the band edge and for SSB – 1850, 3775, 7075, 7225, 14175, 21250, 28500 kHz. Check for CW activity on the half-hour.

Exchange: Stations in Canada send RS(T) and province or territory. VEØ's and stations outside Canada send RS(T) and a serial number.

QSO's: Contacts with stations in Canada or VEØ's are worth 10 points. Contacts with stations outside Canada are worth 2 points. Contacts with RAC official stations are worth 20 points. RAC official stations are: VA2RAC, VA3RAC, VE1RAC, VE4RAC, VE5RAC, VE6RAC, VE7RAC, VE8RAC, VE9RAC, VO1RAC, VO2RAC, VY0RAC, VY1RAC and VY2RAC. You may work any station once on each of the two modes, on each of the eight contest bands.

It is prohibited to make CW contacts in the conventional phone sub-bands, phone contacts in the conventional CW sub-bands, or to make or solicit QSO's through a repeater during the contest period.

Multippliers: Thirteen in total, Canada's 10 provinces and three territories. Each multiplier may be counted once on each mode on each of the eight contest bands. The multipliers, with their postal abbreviations and prefixes are:

Nova Scotia [NS] (VE1, VA1, CY9, CY0); Quebec [QC] (VE2, VA2); Ontario [ON] (VE3, VA3); Manitoba [MB] (VE4, VA4); Saskatchewan [SK] (VE5, VA5); Alberta [AB] (VE6, VA6); British Columbia [BC] (VE7, VA7); Northwest Territories [NT] (VE8); New Brunswick [NB] (VE9); Newfoundland and Labrador [NL] (VO1, VO2); Nunavut [NU] (VY0); Yukon [YT] (VY1); and Prince Edward Island [PE] (VY2). Certain special Canadian prefixes in use at the time of the contest may also apply; however there may be no more than 13 multipliers on each band/mode. Please use the multiplier abbreviations noted above.

Final Score: The total QSO points from all bands multiplied by the total number of multipliers from all bands.

Categories: The following 9 categories are eligible for a certificate or award. Plaques will be awarded to the top-scoring entrants in each category. Thanks to the following for their sponsorship:

- Single Operator All Bands High Power (>100 watts) – **Radioworld**
- Single Operator All Bands Low Power (max. 100 watts output) – **Contest Club Ontario**
- Single Operator QRP (max. 5 watt output) All Bands & Single Band ** – **QRP Canada**
- Single Operator All Bands CW only, any authorized power – **Maritime Contest Club**

- Single Operator All Bands PH only, any authorized power – **Saskatchewan Contest Club**
- Single Operator Single Band, any authorized power *** – **Elkel Products**
- Multi-Operator Single Transmitter High Power (>100 watts) * – **Alfa Radio**
- Multi-Operator Single Transmitter Low Power (max. 100 watts output) * – **Tony Allsop VE3FTA Memorial by the Mississauga ARC**
- Multi-Operator Multi-Transmitter, any authorized power – **Radioworld**

For the Canada Winter Contest a special trophy is awarded for the highest Single Operator (no power classification) Foreign ENTRANT – **Jorge Bozzo LU8DQ Memorial by Alan Goodacre, VE3HX.**

Notes:

Where the categories have a power class and the submitted log does not clearly identify the power class entered, then the log will be treated as if the highest power class for that category was entered. Where logs do not properly indicate the entry category, they will be classified into the highest category.

Single operators who receive assistance from a DX spotting system or Packet Cluster network during the contest must classify themselves as Multi-ops.

* In the Multi-Single category only one transmitter and one band are permitted during the same time period (defined as 10 minutes.) Exception: One, and only one, other band may be used during any 10-minute period, if and only if the station worked is a new multiplier. In other words the Multi-Single Transmitter class allows a second station to "hunt" and work multipliers only on a separate band.

* Multi-Multi category stations may operate on several bands simultaneously.

** Although there is only one QRP category, which qualifies for a certificate or award, it is intended that the published results would show All Bands or the Single Band of operation. To facilitate this break out of the listings, your entry should indicate the power class you used.

*** Although there is only one Single Operator Single Band category that qualifies for a certificate or award, it is intended that the published results would show High Power or Low Power. To facilitate this break out of the listings, your entry should indicate the power class you used.

Awards: Plaques will be awarded to the top-scoring entrants in each category, as noted above with the sponsor name in bold text. Special thanks to our sponsors for their ongoing support! Certificates will be awarded to the top-scoring entrant in each category in each province, territory; US call district, and DXCC country. To facilitate the proper allocation of certificates, all US stations should indicate their actual US call district if different than indicated by their call prefix. DX stations should indicate the actual country of operation if different than indicated by their call prefix.

Results: Will be published in *The Canadian Amateur* magazine published by the Radio Amateurs of Canada. The results will also be published on the RAC website at <www.rac.ca> in the contest section.

Entries: All entries (electronic or paper logs) must be postmarked or electronically submitted by January 31, 2008. Electronic entries will be confirmed by return email.

Send paper entries to:

Radio Amateurs of Canada
720 Belfast Road, Suite 217
Ottawa, Ontario, Canada K1G 0Z5

Paper mail entries must contain a summary sheet showing score calculation, a multiplier check sheet and logsheets.

Logsheets must show time, band, mode, call of station worked, exchanges sent and received and points claimed for each QSO. New multipliers must be clearly marked in the log.

Contest entry forms are also available on the RAC website at <www.rac.ca>.

Send email entries to <canadawinter@rac.ca>.

Any entry with 200 or more contacts should be submitted in digital form, either submitted by email or mailed in via 3.5" MS-DOS/Windows formatted diskette. The preferred format is RAC Cabrillo in plain ASCII/Text format. While the contest committee prefers Cabrillo formatted submissions, we will continue to accept electronic logs from older versions of contest software, but your file must be in ASCII/Text format. Given there are several free programs that support the RAC contests and generate an acceptable entry, we encourage you to seek out one of these programs. The RAC Cabrillo format is described and its detailed layout is shown on the RAC website at <www.rac.ca/downloads/raccabrillo1.pdf>.

Electronic logs should provide a summary sheet with the same information as shown for the paper log entries. The standard summary sheet provided by the typical logging program is generally acceptable, but you should confirm that it contains the same information as shown for paper log entries. A properly filled out Cabrillo header section will be sufficient for logs submitted in that format.

Please ensure that you completely fill out the header information in the Cabrillo file. Name your file with your Call Sign and the file extension .LOG (e.g., yourcall.LOG). If you email your log, please send the file(s) as attachments. Do *not* paste the log file into the text of your message. This is often impossible to extract correctly.

Large files may be zipped if necessary. If you need help with preparing or emailing your log, please contact Sam Ferris, VE5SF, at <ve5sf@rac.ca>.

For the previous year's contest results, visit the RAC website in the contesting sections. We will also be publishing a list of submitted logs and the categories entered on the RAC website after the cut-off date to assist in correcting any entry categorizations.

Please send email entries to <canadawinter@rac.ca>.

Membership Application/Renewal
Ottawa Amateur Radio Club Inc., Box 8873, Ottawa, Ontario K1G 3J2

- Single (\$25, \$20 after Feb 1)
- Family (\$30)
- Junior (\$15, under 18 years of age)
- New Ham (Free if licensed in current Membership year)
- Emailed *Groundwave* Mailed *Groundwave* (add \$5.00)



Please Note: Membership year is September 1 to August 31

Family Name: _____ First Name/Initials: _____

Address: _____

City: _____ Prov: _____ Post Code: _____

Home Phone: _____ Work Phone: _____

E-mail address: _____ (For *Groundwave* mailing)

Callsign(s): _____

Qualifications: Basic Advanced Morse Code
Year Licensed: _____ RAC Member? Yes

Other Family Members

Name: _____ Callsign(s): _____

Qualifications: Basic Advanced Morse Code
Year Licensed: _____ RAC Member? Yes

Interests: _____

Comments/Suggestions: _____

All members who are in good standing on or before the December General Meeting will be eligible for a free one-time name badge. Members who wish a second or replacement badge may purchase one at the Club Price (approx \$7.50 plus tax). Ordered badges will be available in January.

OARC NAME TAG Yes Second or Replacement Yes

ORDER DETAILS - As to appear on badge:

First Name _____ Call Sign _____