

# Information Sheet for the Carlsbad Ham Radio Test Site

05/12/2005

## **1 Contact information for reservations:**

- Please email me, Assi Friedman, at [kk7kx@amsat.org](mailto:kk7kx@amsat.org) for reservations one to two weeks before the exam date. You will receive a response within 48 hours.
- This document contains everything you need to know for the exams, if you still have questions, please don't hesitate to contact me.
- My phone number is **858-792-3427**. Please call during business hours, M-F, 8 AM to 5 PM. If I am unavailable, please leave a message.

## **2 Before the exam:**

- Obtain an FRN number from the FCC:
  - Go to: <http://wireless.fcc.gov/uls/>.
  - Select the **Register CORES/CALLSIGN** button, and follow the instructions to obtain an FRN number and associate it with your call signs.
  - The FRN number will be *required* on Form NCV EC 605.
- Obtain Form NCV EC 605:
  - Go to: <http://www.sandarc.net>
  - Download and fill out Form NCV EC 605 (Form 605 is also provided in this document).
- Some exam tips and suggestions are available in Sections 5 and 6.

## **3 Exam day:**

- Bring a completed Form NCV EC 605.
- Bring \$5, exact change please!
- Bring government issued ID (driver's license, passport, military ID etc...).
- Bring a copy of your ham radio license and any CSCEs you may have.
- Calculators are allowed, however they are not to be programmed.
- Exam date: second Saturday of the month.
- Test session starts at 9:30 AM, sharp. Please show up on time.
- Exam location: Carlsbad Safety Center / Carlsbad Police:
  - 2560 Orion Way, Carlsbad CA 92008
  - See map in Section 5
  - From Interstate 5:
    - Take **Palomar Airport Road** east to **El Camino Real**.
    - Turn left on **El Camino Real**.
    - Drive north to **Faraday Ave**.
    - Turn right on **Faraday** in the direction of the Safety Center arrow and go past the FedEx facility.
    - At the T intersection, turn left and follow the road around to the right.

- Drive past the fire station and skate board park up to the Carlsbad Safety Center, on the right.
- From Highway 78 - Oceanside area:
  - Take the **El Camino Real** exit and head south.
  - Turn left on **Faraday** in the direction of the Safety Center arrow and go past the FedEx facility.
  - At the T intersection, turn left and follow the road around to the right.
  - Drive past the fire station and skate board park up to the Carlsbad Safety Center, on the right.
- From Highway 78 - Escondido area:
  - Take **San Marcos Blvd** exit and head west.
  - **San Marcos Blvd** turns into **Palomar Airport Road** at Rancho Santa Fe Road.
  - Turn right on **El Camino Real**.
  - Go north to **Faraday Ave**.
  - Turn right on **Faraday** and go past the FedEx facility.
  - At the T intersection, turn left and follow the road around to the right.
  - Drive past the fire station and skate board park up to the Carlsbad Safety Center, on the right.

#### 4 Miscellaneous comments:

- Retesting during the same session is generally allowed. In all cases, the final decision is up to the team leader.
- Four examiners volunteer and commit their time and resources to support an exam session. If you made a reservation and cannot attend, please be courteous and inform the team leader ahead of time.
- Walk-ins are allowed, providing all the prerequisites of Sections 2 and 3 are met. Since sessions may be canceled if there are not a sufficient number of candidates, please make every effort to call ahead and make a reservation.

#### 5 Online written practice exams:

- <http://www.qrz.com/testing.html>.
- <http://www.eham.net/exams/>.
- <http://www.aa9pw.com/radio/index.html>.
- These online exams use the same question pool that SANDARC exams are based.

## **6 Code exam**

### **6.1 What do I have to do to pass the code test?**

You have to demonstrate your ability to receive and understand Morse being sent to you at 5 words per minute. The actual test usually takes the form of copying someone sending one half a normal QSO (conversation) in which all 43 required characters will be used. To pass the exam, you will either have to answer correctly at least seven of ten questions based on the contents of the QSO, or have at least one minute of solid copy (25 correct characters in a row).

### **6.2 I'm not good at learning languages. How hard is it to learn Morse?**

While Morse code is not strictly a language, it is much easier to learn than Spanish or French or Urdu. Only two sounds are needed – no tongue-twisting required! Once you've learned to associate the sounds for a character with the character itself, you'll find that no additional translation is needed – the exam's contents are in English. You'll have to learn only 43 characters: the 26 letters of the alphabet, the numeral 0-9, three punctuation marks (period, comma, question mark) and four procedural signals (equal sign, slant bar, end of message, end of contact). That's 43 characters versus the hundreds or even thousands of words necessary to memorize in other languages.

Though you may not believe it at first, 5 words a minute is slow enough so that just about anyone can learn the code after a few weeks of practice.

However, just like learning any new skill, learning Morse code requires a certain level of commitment. Best progress is achieved by practicing for 15-30 minutes once or twice daily until you master all the characters and the QSO format.

### **6.3 What's the best way of learning the code?**

There is no "best" way – each individual person learns the code in their own unique way. Remember, however, that Morse code is based on sound. Learn the code by ear - don't try to learn it visually by memorizing "dots" and "dashes".

Currently, most folks learn Morse using one of two basic methods – copying code from lessons on tapes or CDs, or using one of several computer training programs that, after introducing each character, generates random sequences of characters for you to practice copying. Later, when you've mastered all the characters, the program can generate QSOs similar to the ones found on the code test. Which method you select will be based on the way you like to learn, where you will be able to practice (hard to use a computer while

driving a car <grin>), and what you can afford. However, especially with the computer programs you can download a demo copy to review. Some computer programs are even free!

Most practice materials generates code using the Farnsworth method: individual characters are sent at a higher rate of speed (usually 12-15 wpm), while the overall speed of the transmitted text (5 wpm for the test) is controlled by increasing the standard spacing between characters. The advantage here is that you are already comfortable with the sound of the individual characters sent at a higher speed. All you need to do to increase your speed is to practice copying those characters at a faster rate (i.e. reduced spacing between characters).

Much more information on learning Morse code can be found at Rod AC6V's website at: <http://ac6v.com/morseaids.htm#Learn>.

Code practice CDs and tapes can be purchased from the American Radio Relay League (ARRL) at <http://www.arrl.org/catalog/>. Look in the "Licensing!..." section. Gordon West offers similar products at you local ham shop or at <http://www.w5yi.org/>. Do an Internet search – other products might be available.

Some computer programs that might be worth a look can be found at <http://ac6v.com/morseprograms.htm>.

#### **6.4 How long will it take?**

Again, this will vary among individuals, depending on your ability and level of commitment. Average time seems to be about 4-6 weeks based on one to two practice sessions per day, 15-30 minutes per session. People with better memories and children progress faster; the rest of us, not so fast. How long it takes isn't really important – after all, this is a hobby. Make the commitment, enjoy the journey, and sooner rather than later you will reach your goal and pass the exam!

#### **6.5 Any suggestions, hints, tips etc. for studying the code?**

Again, commitment is the key. Put aside time for one or two sessions per day, no more than 15-30 minutes per session. Try not to miss days – consistent practice leads to faster progress.

Resist the temptation to first learn the code at a faster speed than, say, 6-7 wpm. Some people jump right in and learn Morse at 15-20 wpm. They come in to take the test, and they have a hard time downshifting to 5 wpm. Do learn the code slightly faster than 5 wpm (it will build your confidence), but don't go more than 20-25% faster in speed.

Think “sound”. Learn each character by its overall sound. Example: for “A”, not “dit” and “dah”, but “ditdah”.

Concentrate on each character as it goes by, but don’t worry about missing individual characters. Practice immediately going on to the next character if you miss one. This is probably the most important skill you will develop.

Somewhere along the line, you will hit the dreaded “plateau” – progress will apparently stop even though you continue to diligently practice. Fear not! Keep at it, and after a few days you will work your way through it. For a really bad case of the “plateaus”, take a few days off – but make sure you come back with the same level of commitment as before.

Make sure you practice lots of sample QSOs before taking you test. Know the format in which characters are sent, as this really helps boosts exam scores. Learn the definitions for standard abbreviations and Q signals such as “RST” and “QTH”.

## **6.6 Exam Format**

- Exam is 5 words per minute and is not Farnsworth. This means that the characters and their spacing are 5 words per minute. Exams are administered using a tape recorder and earphones.
- Every exam starts with the following message in code: “This is a test.” During that time you may adjust the headset volume to suit your comfort.
- The code test mimics a casual QSO between two ham radio operators.
- Pausing or rewinding the tape is not allowed once the QSO starts.

## **6.7 Any suggestions, hints, tips for taking the exam?**

- Relax! This is a hobby. Even on the off chance you don’t pass, exams are scheduled every weekend somewhere in San Diego county. Always another chance down the road.
- Remember that the VEs want you to pass. No tricks, the exam will be fair.
- Get a good night sleep the night before.
- Make sure you get to the exam site early. The last thing you want to do is to rush in at the last minute.
- Fit the headset comfortably on your head, and adjust the volume so you can hear what’s on the tape clearly.
- You’ll get one minute of copy to warm up before the QSO starts. Treat this as if it was the test QSO itself. The goal here is to settle down before you get to the QSO itself – the best cure for nervousness is concentrating on copying the code.

- Concentrate on copying every character as it goes by. If you miss one, let it go immediately. Go on to the next one. Chances are excellent you will be able to figure out the missed character later when you go over your copy.
- After the hearing portion of the exam is complete, sit back, take a deep breath, and go review what you copied.

Remember:

- The exam will use all 43 characters – make sure you have copy them all. If you miss some, make an educated guess what and where they might be. For example, the “end of message” character will not be found at the beginning of the QSO. If you copy “1 \_ 8”, and you did not copy a “5” elsewhere in the QSO, guess where it goes?
- Context is your friend. For example, if you copy “QTH is \_ oledo, Ohio”, you are missing a “T”.
- If you are not absolutely certain of a character, check and correct your spelling of the word it is in. Those who develop the code test do not intentionally misspell words. However, be aware that there is a wide variation in how people spell their names.
- You’ve studied the standard abbreviations and Q signals found in the practice QSOs, right?
- Answer the ten questions completely, spelling each answer exactly as it was sent.

## 7 After the exam:

- If you pass, processing takes 10-14 days. Following that, go to one of the following sites to find your new call sign:
  1. QRZ new entries: [http://www.qrz.com/new\\_hams.html](http://www.qrz.com/new_hams.html).
  2. QRZ name search: <http://www.qrz.com/i/names.html>.
  3. FCC license search: <http://wireless.fcc.gov/uls/>.
- Once you receive your call sign, you are approved to go on the air within the band restrictions of your new license.
- The license will arrive from the FCC within several months.
- Yes! HRO is open on weekends too! ☺
- If you failed, please practice and come again!

## 8 Map of the Carlsbad exam site



## 9 Form NCVEC 605

Attached is the form as downloaded from the SANDARC (<http://www.sandarc.net>) links provided in section 2. Please note that this is a fill-in PDF form, so you can edit it using Adobe Acrobat reader (<http://www.adobe.com/products/acrobat/readermain.html>), print and bring it in.

# NCVEC QUICK-FORM 605 APPLICATION FOR AMATEUR OPERATOR/PRIMARY STATION LICENSE

## SECTION 1 - TO BE COMPLETED BY APPLICANT

PRINT LAST NAME	SUFFIX	FIRST NAME	M.I.	STATION CALL SIGN (IF ANY)
MAILING ADDRESS (Number and Street or P.O. Box)				SOCIAL SECURITY NUMBER (SSN) or (FRN) FCC FEDERAL REGISTRATION NUMBER
CITY		STATE CODE	ZIP CODE (5 or 9 Numbers)	E-MAIL ADDRESS (OPTIONAL)
DAYTIME TELEPHONE NUMBER (Include Area Code) OPTIONAL		FAX NUMBER (Include Area Code) OPTIONAL		ENTITY NAME (IF CLUB, MILITARY RECREATION, RACES)
Type of Applicant: <input type="checkbox"/> Individual <input type="checkbox"/> Amateur Club <input type="checkbox"/> Military Recreation <input type="checkbox"/> RACES (Modify Only)				CLUB, MILITARY RECREATION, OR RACES CALL SIGN
I HEREBY APPLY FOR (Make an X in the appropriate box(es))				SIGNATURE OF RESPONSIBLE CLUB OFFICIAL

<input type="checkbox"/> <b>EXAMINATION</b> for a <b>new</b> license grant <input type="checkbox"/> <b>EXAMINATION</b> for <b>upgrade</b> of my license class <input type="checkbox"/> <b>CHANGE</b> my <b>name</b> on my license to my new name Former Name: _____ <small>(Last name) (Suffix) (First name) (MI)</small>	<input type="checkbox"/> <b>CHANGE</b> my mailing address to <b>above</b> address <input type="checkbox"/> <b>CHANGE</b> my station <b>call sign</b> systematically Applicant's Initials: _____ <input type="checkbox"/> <b>RENEWAL</b> of my license grant.
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Do you have another license application on file with the FCC which has not been acted upon?	PURPOSE OF OTHER APPLICATION	PENDING FILE NUMBER (FOR VEC USE ONLY)
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- I certify that:**
- I waive any claim to the use of any particular frequency regardless of prior use by license or otherwise;
  - All statements and attachments are true, complete and correct to the best of my knowledge and belief and are made in good faith;
  - I am not a representative of a foreign government;
  - I am not subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862;
  - The construction of my station will NOT be an action which is likely to have a significant environmental effect (See 47 CFR Sections 1.1301-1.1319 and Section 97.13(a));
  - I have read and WILL COMPLY with Section 97.13(c) of the Commission's Rules regarding RADIOFREQUENCY (RF) RADIATION SAFETY and the amateur service section of OST/OET Bulletin Number 65.

<b>Signature of applicant</b> (Do not print, type, or stamp. Must match applicant's name above.) X _____ Date Signed: _____	
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## SECTION 2 - TO BE COMPLETED BY ALL ADMINISTERING VEs

Applicant is qualified for operator license class:

**NO NEW LICENSE OR UPGRADE WAS EARNED**

**TECHNICIAN**           Element 2

**GENERAL**               Elements 1, 2 and 3

**AMATEUR EXTRA**      Elements 1, 2, 3 and 4

DATE OF EXAMINATION SESSION
EXAMINATION SESSION LOCATION
VEC ORGANIZATION
VEC RECEIPT DATE

**I CERTIFY THAT I HAVE COMPLIED WITH THE ADMINISTERING VE REQUIREMENTS IN PART 97 OF THE COMMISSION'S RULES AND WITH THE INSTRUCTIONS PROVIDED BY THE COORDINATING VEC AND THE FCC.**

1st VEs NAME (Print First, MI, Last, Suffix)	VEs STATION CALL SIGN	VEs SIGNATURE (Must match name)	DATE SIGNED
2nd VEs NAME (Print First, MI, Last, Suffix)	VEs STATION CALL SIGN	VEs SIGNATURE (Must match name)	DATE SIGNED
3rd VEs NAME (Print First, MI, Last, Suffix)	VEs STATION CALL SIGN	VEs SIGNATURE (Must match name)	DATE SIGNED

## INSTRUCTIONS FOR COMPLETING APPLICATION FORM NCVEC FORM 605

### ARE WRITTEN TESTS AN FCC-LICENSE REQUIREMENT? ARE THERE EXEMPTIONS?

Beginning April 15, 2000, you may be examined on only three classes of operator licenses, each authorizing varying levels of privileges. The class for which each examinee is qualified is determined by the degree of skill and knowledge in operating a station that the examinee demonstrates to volunteer examiners (VEs) in his or her community. The demonstration of this knowledge is required in order to obtain an Amateur Operator/Primary Station License. There is no exemption from the written exam requirements for persons with difficulty in reading, writing, or because of a handicap or disability. There are exam accommodations that can be afforded examinees (see ACCOMMODATING A HANDICAPPED PERSON below). Most new amateur operators start at the Technician class and then advance one class at a time. The VEs give examination credit for the license class currently (and in some cases, previously) held so that examinations required for that license need not be repeated. The written examinations are constructed from question pools that have been made public (see: <<http://www.arrl.org/arrlvec/pools.html>>.) Helpful study guides and training courses are also widely available. To locate examination opportunities in your area, contact your local club, VE group, one of the 14 VECs or see the online listings at: <<http://www.w5yi.org/vol-exam.htm>> or <<http://www.arrl.org/arrlvec/examsearch.phtml>>.

### IS KNOWLEDGE OF MORSE CODE AN FCC-LICENSE REQUIREMENT? ARE THERE EXEMPTIONS?

Some persons have difficulty in taking Morse code tests because of a handicap or disability. There is available to all otherwise qualified persons, handicapped or not, the Technician Class operator license that does not require passing a Morse code examination. Because of international regulations, however, any US FCC licensee seeking access to the HF bands (frequencies below 30 MHz) must have demonstrated proficiency in Morse code. If a US FCC licensee wishes to gain access to the HF bands, there is no exemption available from this Morse code proficiency requirement. If licensed as a Technician class, upon passing a Morse code examination operation on certain HF bands is permitted.

### THE REASON FOR THE MORSE CODE EXAMINATION

Telegraphy is a method of electrical communication that the Amateur Radio Service community strongly desires to preserve. The FCC supports this objective by authorizing additional operating privileges to amateur

operators who pass a Morse Code examination. Normally, to attain this skill, intense practice is required. Annually, thousands of amateur operators prove, by passing examinations, that they have acquired the skill. These examinations are prepared and administered by amateur operators in the local community who volunteer their time and effort.

### THE EXAMINATION PROCEDURE

The volunteer examiners (VEs) send a short message in the Morse code. The examinee must decipher a series of audible dots and dashes into 43 different alphabetic, numeric, and punctuation characters used in the message. Usually a 10-question quiz is then administered asking questions about items contained in the message.

### ACCOMMODATING A HANDICAPPED PERSON

Many handicapped persons accept and benefit from the personal challenge of passing the examination in spite of their hardships. For handicapped persons who have difficulty in proving that they can decipher messages sent in the Morse code, the VEs make exceptionally accommodative arrangements. To assist such persons, the VEs will:

- adjust the tone in frequency and volume to suit the examinee.
- administer the examination at a place convenient and comfortable to the examinee, even at bedside.
- for a deaf person, they will send the dots and dashes to a vibrating surface or flashing light.
- write the examinee's dictation.
- where warranted, they will pause in sending the message after each sentence, each phrase, each word, or in extreme cases they will pause the exam message character-by-character to allow the examinee additional time to absorb, to interpret or even to speak out what was sent.
- or they will even allow the examinee to send the message, rather than receive it.

Should you have any questions, please contact your local volunteer examiner team, or contact one of the 14 volunteer examiner coordinator (VEC) organizations. For contact information for VECs, or to contact the FCC, call 888-225-5322 (weekdays), or write to FCC, 1270 Fairfield Road, Gettysburg PA 17325-7245. Fax 717-338-2696. Also see the FCC web at: <<http://www.fcc.gov/wtb/amateur/>>.

## RENEWING, MODIFYING OR REINSTATING YOUR AMATEUR RADIO OPERATOR/PRIMARY STATION LICENSE

### RENEWING YOUR AMATEUR LICENSE

The NCVEC Form 605 may also be used to renew or modify your Amateur Radio Operator/Primary Station license. License renewal may only be completed during the final 90 days prior to license expiration, or up to two years after expiration. Changes to your mailing address, name and requests for a sequential change of your station call sign appropriate for your license class may be requested at any time. This form may not be used to apply for a specific ("Vanity") station call sign.

### REINSTATING YOUR AMATEUR LICENSE

This form may also be used to reinstate your Amateur Radio Operator/Station license if it has been expired less than the two year grace period for renewal. After the two year grace period you must retake the amateur license examinations to become relicensed. You will be issued a new systematic call sign.

### RENEWING OR MODIFYING YOUR LICENSE

**On-line renewal:** You can submit your renewal or license modifications to FCC on-line via the internet/VVWW at: <<http://www.fcc.gov/wtb/uls>>. To do so, you must first register in ULS by following the "Register, TIN/Call Sign" link and then complete your registration information (ignore the contact person, and SGIN references). You must then choose the "File, ULS Filing" link to perform your on-line transaction with FCC. Direct any on-line filing or password questions to FCC Tech Support weekdays at tel: 202-414-1250.

**Renewal by mail:** If you choose to renew by mail, you can mail the "FCC Form 605" to FCC. You can obtain FCC Form 605 via the internet at <<http://www.fcc.gov/formpage.html>> or <<ftp://ftp.fcc.gov/pub/Forms/Form605/>>. It's available by fax at 202-418-0177 (request Form 000605). The FCC Forms Distribution Center will accept form orders by calling

800-418-3676. FCC Form 605 has a main form, plus a Schedule D. The main form is all that is needed for renewals. Mail FCC Form 605 to: FCC, 1270 Fairfield Rd, Gettysburg PA 17325-7245. This is a free FCC service. The NCVEC Form 605 application can be used for a license renewal, modification or reinstatement. NCVEC Form 605 can be processed by VECs, but not all VECs provide this as a routine service. ARRL Members can submit NCVEC Form 605 to the ARRL/VEC for processing. ARRL Members or others can choose to submit their NCVEC Form 605 to a local VEC (check with the VEC office before forwarding), or it can be returned with a \$6.00 application fee to: The W5YI Group, Inc., P.O. Box 565101, Dallas, Texas 75356 (a portion of this fee goes to the National Conference of VECs to help defray their expenses). The NCVEC Form 605 may not be returned to the FCC since it is an internal VEC form. Once again, the service provided by FCC is free.

### THE FCC APPLICATION FORM 605

The FCC version of the Form 605 may not be used for applications submitted to a VE team or a VEC since it does not request information needed by the administering VEs. The FCC Form 605 may, however, be used to routinely renew or modify your license without charge. It should be sent to the FCC, 1270 Fairfield Rd., Gettysburg PA 17325-7245.

### CLUB STATION CALL SIGN ADMINISTRATORS (CSCSA)

The NCVEC Form 605 is also used for the processing of applications for Amateur Service club and military recreation station call signs and for the modification of RACES stations. No fee may be charged by an administrator for this service. The Club Station Call Sign Administrators are: ARRL/VEC (225 Main St., Newington, CT 06111), W4VEC (3504 Stonehurst Pl., High Point, NC 27265) and the W5YI-VEC (P.O. Box 565101, Dallas, TX 75356.) Please return this form to one of these three CSCSAs.