

History of Amateur Radio Licensing



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About Robert

Robert C. Cain, MVP, MCTS

Amateur Radio Operator since 1999

Owner, Arcane Training and Consulting, LLC

Microsoft Data Platform MVP since 2008

Pluralsight Course Author

Co-Author 5 books

Speaker, SQL PASS, TechEd, SQL Saturdays, PowerShell Saturdays,
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The early days – 1901 to 1912

- No license required
- Operators picked their own call signs
- As range was typically around 100 miles with the tech of the time, this generally wasn't an issue
- As the technology got better, interference became more of an issue



Radio Act of 1912

Form 900

UNITED STATES OF AMERICA No. 14615
DEPARTMENT OF COMMERCE
BUREAU OF NAVIGATION
RADIO SERVICE

License to Radio Operator, Amateur Second Grade

This is to certify, that Robert H. Winchester -
has presented satisfactory evidence that he has a knowledge of the adjustment and operation of apparatus and of the regulations of the Radiotelegraphic Convention and the Acts of Congress, in so far as they relate to interference with radio communication and impose certain duties on all grades of operators, sufficient to entitle him to a license, and he is hereby provisionally licensed as RADIO OPERATOR, AMATEUR SECOND GRADE, until he has been duly examined, but not to exceed a period of one year.

He has also shown that he has knowledge (excellent or good) of the following additional subjects:

(a) General adjustment, operation, and care of apparatus good
(b) Transmitting and sound reading Continental Morse at a speed of 10 words a minute.
(c) General knowledge of international regulations and Acts of Congress to regulate radio communication good

(Signature of Asst. U.S. Radio Inspector)
Asst. U.S. Radio Inspector
(TOL)

Oath of secrecy executed: *(Signature of Robert H. Winchester)*
HERBERT HOOVER, Secretary of Commerce
E. T. CHAMBERLAIN, Commissioner of Navigation

Place Detroit, Mich. Date Aug. 13th, 19 21

Amateur Second Grade license, 1921

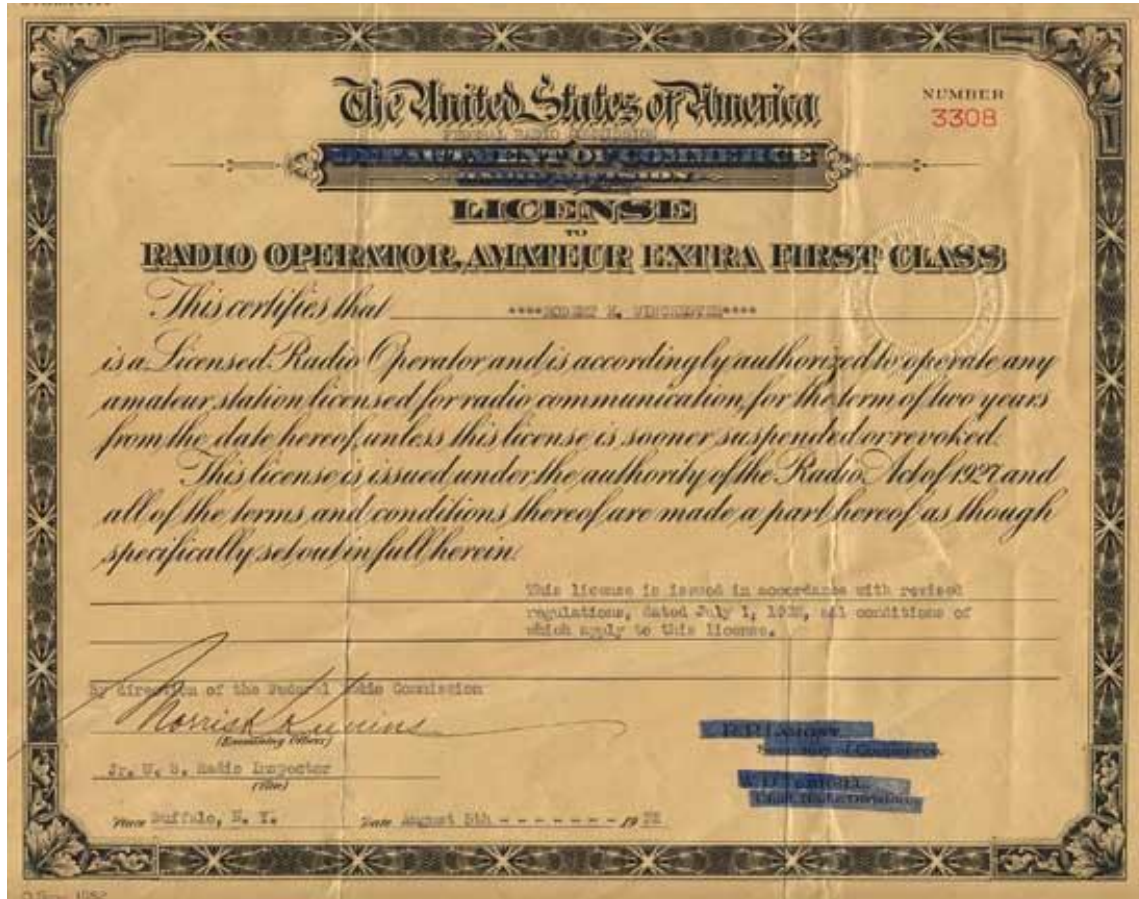
- Radio managed by the Department of Commerce
- Amateur First Grade
- Amateur Second Grade
- First Grade – Written test plus 5 wpm (changed to 10 in 1919)
- Second Grade – Self certified they could meet First Grade requirements but cannot make it to a test center (125 miles + from a test center)

World War I – 1917 to 1919

- When US entered WWI, all licenses were suspended
- After the war ended in 1918, the Navy didn't want to let Amateurs back on the air
- It took an act of Congress in 1919 ordering the Secretary of the Navy to restore operating rights to amateurs



1923 – Amateur Extra First Grade



- Hold a First Grade license for 2 or more years
- Written test
- 20 wpm code test
- Provided CW privileges to wavelengths longer than 200 meters
- Discontinued in 1927 when interest shifted to shorter waves than 200 meters

Amateur Extra First Class, 1932

Radio Act of 1927

- Authority over radio was placed in the Federal Radio Division under the Department of Commerce
- Amateur First Grade renamed to Amateur Class
- Amateur Second Grade renamed to Temporary Amateur
- Temporary Amateur expired in 1 year, and after 1932 could not be renewed

Federal Radio Commission - 1932

- FRC was created in 1932
- Merged with the Department of Commerce Federal Radio Division



Federal Radio Commission - 1933



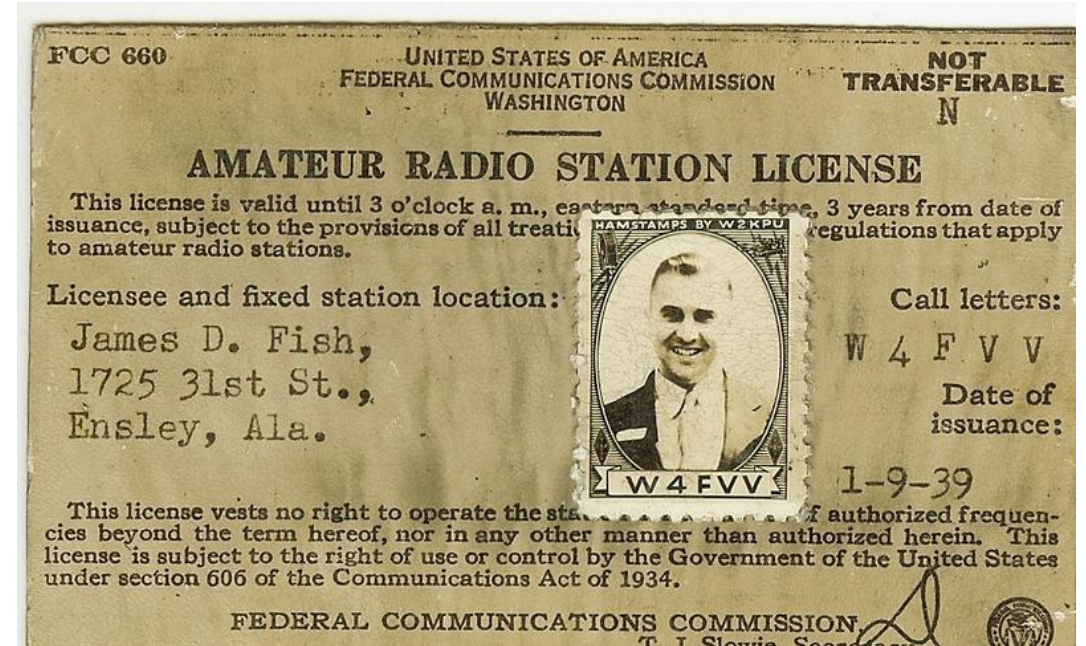
- In 1933 the FRC created new license classes, A, B, and C
- Amateur Extra First Grade became class A
- Amateur became B, New B's had exams given at an FRC office
- Class C was for people who lived more than 125 miles from an FRC office, exam was given by Class A and B hams operating as examiners
- Temporary Amateur had to retest

Federal Radio Commission - 1933

- All three required code tests (10 wpm until 1936, when it became 13 wpm)
- Class A – Exclusive Phone on 20 and 75 meters. Required one year of previous experience plus written test.
- Class B and C – No phone privileges, but otherwise the same permissions
- Previously radio operator and radio station licenses were two different licenses, at this point they became the same license

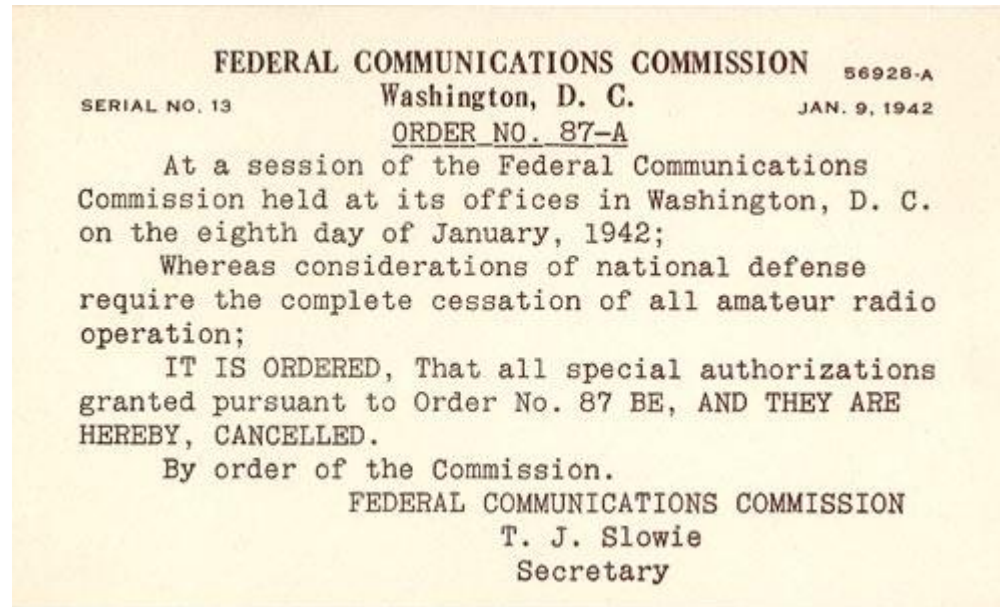
Federal Communications Commission - 1934

- In 1934 the Federal Radio Commission became the FCC we know today
- No other changes to licensing occurred at this time



<https://www.qrz.com/db/K4KFT>

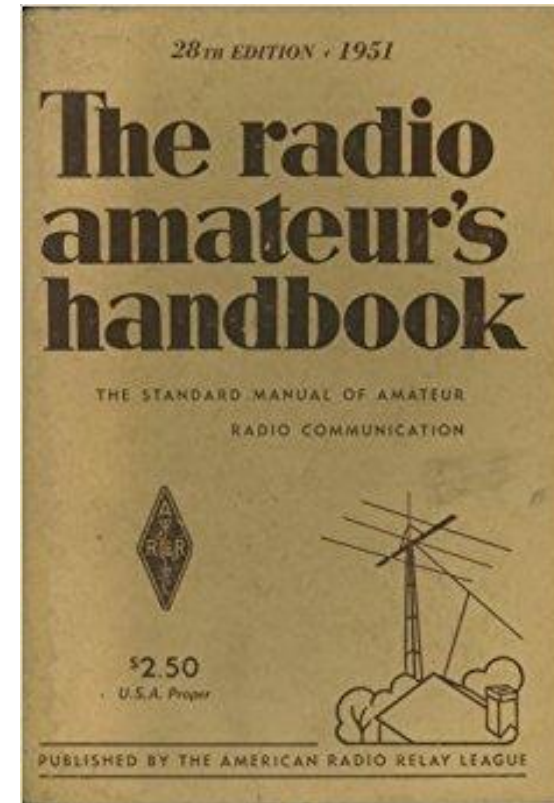
World War II



- All licenses were ***cancelled*** at the start of World War II
- Many hams served in civilian roles in civil defense operation
- Many more joined the armed forces as radio operators
- After war FCC began to reissue licenses
- Some changes to frequency permissions occurred at this time

The Great Shake Up - 1951

- The previous A, B, and C were retired
- Replaced by Novice, Technician, General, Conditional, Advanced, and Amateur Extra
- Licenses were issued for a 5 year period (except Novice)



Novice - 1951

☆ U. S. GOVERNMENT PRINTING OFFICE: 1956-391690

Card May Be Trimmed
On Border Line

FCC Form 660 Rev. June 1956 UNITED STATES OF AMERICA
STATION CALL SIGN FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C.
AMATEUR RADIO LICENSE

EXPIRES
3 a. m., e. s. t.
6-25-58

KN5LAD N10

Fixed transmitter location: (and remote control position when authorized)
SAME AS BELOW

Licensee and P. O. Address:
JIM C. PICKETT
611 NORTH MAIN AVENUE
SAND SPRINGS, OKLA.
(This license issued subject to conditions shown on reverse side)

May Jan Morris
Secretary

NOT TRANSFERABLE

Operator Privileges	Issuing Officer	Effective Date
Class NOVICE	C.B. Plummer	6-25-57
Class		

SEE UPPER RIGHT CORNER FOR EXPIRATION DATE

Countersigned Jim C. Pickett
Licensee

- 5 WPM + Novice Written Test
- License valid for 1 year (later in 1964 extended to 2 years, then in 1978 extended to same 5 years as other licenses)
- 75 watts max power
- CW on 80, 40, 15, Code and Voice on 145-147 MHz

Technician - 1951

- 5 WPM + General (element 3) Written Exam
 - General Class permissions in 50 MHz
 - Voice/Code 145-147
 - All rights above 220 MHz
-
- Until the late 60's, a ham could hold two licenses, both the Tech and Novice, and have two different call signs

General - 1951

- 13 WPM + General (element 3) Written Test
- Full privileges on all bands
- Class B operators became Generals

Conditional - 1951

- Class C operators became Conditional
- 13 WPM + General (element 3) Written Test, administered by General or higher
- Distance from FCC office reduced to 75 miles
- Full privileges on all bands
- Marked the unofficial beginning of VE's

Form 640 Rev. Nov. 1950 UNITED STATES OF AMERICA
STATION CALL SIGN W 7 W C C FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D. C.
AMATEUR RADIO LICENSE EXPIRES 5-10-59
3 a. m. e. s. t.

Fixed transmitter location: (and remote control position when authorized)

NOT TRANSFERABLE SAME AS BELOW

Licensee and P. O. Address:
LAWRENCE H. GERHARDSTEIN
STAR ROUTE
ST. REGIS, MONT.

(This license issued subject to conditions shown on reverse side)

Secretary

Operator Privileges	Issuing Officer	Date of Issuance
Class CONDITIONAL		5-10-54
Class		
Class		

Countersigned

Advanced - 1951

- Class A operators were placed into the Advanced class
- Advanced licenses were not issued from 51-67, only way to become an advanced was to migrate from Class A
- Post 1967, Advanced (element 4A) Written Test
- Full privileges on all bands

Amateur Extra - 1951

- 20 wpm + Amateur Extra (element 4B) written exam
- Full privileges on all bands

Incentive Licensing - 1964

- Prior to 1964, General, Conditional, Advanced, and Amateur Extra all had the exact same rights on all bands
- Advanced and Amateur Extra were essentially “bragging rights”
- FCC created Incentive Licensing to encourage hams to evolve their skills to the higher classes
- Required removal of some privileges from General and Advanced (who understandably weren’t happy about it)

Conditional - 1967

- In 1967, the FCC migrated all Conditional licenses to General upon renewal, effectively removing this as a license class by 1971.

The New Technician - 1990

- Removed the Morse code requirement
- The first license since the licensing requirements began to not require a Morse code test
- All modes and bands above 50 MHz
- Passing of any code test granted the Novice HF privileges.
- FCC started labeling these as Tech Plus in 1994

Restructuring - 2000

- Reduced number of license classes to 3, Tech, General, Extra
- Advanced, Tech Plus, and Novice could still be renewed but not issued
- Only one Morse code test required, 5 wpm, to get General
- Allowed Advanced class to be able to give General exams
- Pre 1987 Techs could become General just by filling out paperwork
- Novice licenses, current or expired, could be used as credit toward the 5 wpm requirement

The End of Morse Code? - 2006



- 2003 – The ITU (International Telecommunications Union) removed the requirement to demonstrate Morse code proficiency in order to operate on frequencies below 30 MHz
- 2006 – The FCC dropped the Morse code test from the list of requirements, became effective February 23, 2007
- On that date all Technicians became Tech Plus automatically
- Despite cries this would kill Morse code, it still remains a popular mode

Today

- Three License Classes can be issued
 - Technician
 - General
 - Amateur Extra
- Existing licenses can be renewed
 - Novice
 - Advanced
- All licenses only require a written exam, no more code testing

Resources

- History of Amateur Radio
 - https://en.wikipedia.org/wiki/History_of_amateur_radio
- Amateur Radio Licensing: A Seven-Decade Overview
 - QST March 1985 (Members Only)
 - http://www.arrl.org/files/file/protected/Group/Members/Technology/tis/info/pdf/QST_Mar_1985_p47-48.pdf
- Amateur Radio and World War II
 - QST August 1995
 - <http://www.arrl.org/files/file/protected/Group/Members/Technology/tis/info/pdf/9508040.pdf>
- ARRL Ham Radio History
 - <http://www.arrl.org/ham-radio-history>
- Older License Examples
 - http://uv201.com/Photo%20Pages/8bny_licenses.htm



- Questions?
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- [@N4IXT](#) on Twitter
- <http://arcanecode.com/info>