



SINGAPORE AMATEUR RADIO TRANSMITTING SOCIETY

FCC Amateur Radio Licencing Guide for Singapore HAMs

by 9V1DT
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FCC AMATEUR RADIO LICENSING

Why to get an FCC License?

- US FCC Amateur licenses are well recognized
- Would be helpful to get visitor licenses / during Dxpeditions
- License term is 10 years

Why now?

- Remote exam sessions are being offered due to the current COVID situation
- FCC licenses are issued free of cost now. This is set to change soon and FCC will be charging 35 USD per license application

LICENSE CLASSES

1. Technician license

- Beginner level
- Opens up VHF, UHF and a small portion of HF
- 35 MCQ exam, need to get at least 26 right (74% to pass)

2. General license

- Intermediate level
- Technician class privileges + opens more of HF bands
- 35 MCQ exam, need to get at least 26 right (74% to pass)

3. Amateur Extra license

- Advanced level
- General class privileges + opens up the entire HF band
- 50 MCQ exam, need to get at least 37 right (74% to pass)

Note: One has to clear Technician class before attempting General and like wise, one has to clear Technician and General to take Amateur Extra

More info: <http://www.arrl.org/ham-radio-licenses> | [How many questions are on the ham radio license tests?](#)

RAE VS FCC

- The key topics tested in RAE and FCC exams are:
 1. Rules and regulations
 2. RF operation
 3. Electronics
 4. Safety
- Rules and regulations would vary widely between FCC and Singapore
- FCC exam is more up to date with the current technologies and operating conventions
- RAE emphasizes more on the electronics
- Comments from SG hams who have taken both RAE and FCC:
 - A person who has gone through RAE should not have trouble clearing the FCC Technician class, provided they get acquainted with the FCC regulations.
 - FCC General class would also be doable
 - Amateur Extra would take more effort

TIMELINE AND COSTS

Time frames:

1. Registration: ~30 minutes
2. Preparation:
 - Technician class: 1 week (45 min/day)
 - General class: 1.5 weeks (45 min/day)
 - Extra class: 2 weeks (45 min/day)
3. Exam time: ~15-30 mins / license class
 - Note: it depends on the exam organizer
4. License issue: ~3-4 days

Note: Preparation time estimates are pretty liberal with a lot of buffer included. It should be much shorter for experienced hams.

Costs:

1. Exam fee: ~10-15 USD
 - This is the exam fee per session
 - You can also take multiple exams on the same session without additional fees. E.g.: Tech and General or Tech, General and Extra together.
2. Licence fee: 0 USD.
 - This is set to be increased to **35 USD** in the coming months
 - <https://www.buytwowayradios.com/blog/2021/03/new-fcc-license-fees-to-take-effect-april-2021.html>

EXAM REGISTRATION

1. Get a USA mailing address
 - This can be an address of your friend/relative or an address obtain form forwarding services such as [comGateway](#) or [ezship](#)
2. Get an FRN (FCC Registration Number)
 - This can be obtained for free from FCC CORES webpage
 - Follow the instructions from here: <https://vea.org.au/register-for-a-frn-number>
3. Proceed to exam registration
 - Recommended exam provider (SG time zone friendly): <https://vea.org.au/book-us-online-exam>
 - If no slots are available, drop a text at <https://vea.org.au/contact>. They may create new sessions.
 - More slots can be found here: <https://hamstudy.org/sessions>
 - Please go through the information carefully and follow them. The instructions vary between providers.

Useful FAQs: <https://vea.org.au/faq>

EXAM PREPARATION

The exam questions are extracted from a question pool revised regularly (4 years).
The current pool is valid for the following terms:

- Technician Class (2018-2022)
- General Class (2019-2023)
- Amateur Extra Class (2020-2024)

Study materials (paid):

ARRL License Manuals

1. These are the “official” resources to learn for the exam
2. The materials presented are conveniently cross linked to their associated questions
 - [Technician Class License Manual](#)
 - [General Class License Manual](#)
 - [Amateur Extra Class License Manual](#)

EXAM PREPARATION

Study materials (free):

1. Previous edition license manuals for Technical and General class can be found online
 - Technician Class: [The ARRL Ham Radio License Manual, 3rd Edition](#)
 - General Class: [The ARRL General Class License Manual, 7th edition](#)
 - While they may not be up to date, they can provide good foundations and cover a significant portion of the current question pool
2. For Technician class you can find an up to date guide here
 - <https://www.kb6nu.com/study-guides/>
3. For Extra class:
 - https://www.k4vrc.com/uploads/1/0/1/5/10156032/extra_class_exam_study_guide.pdf
 - This is an old study guide. But most of the content is still relevant to the current question pool
4. Once you are familiar with the exam content you can visit <https://hamstudy.org/> and start practising with the questions

EXAM PREPARATION

- The ideal method is to read the license manuals/study guides; get familiarized with the content and later use hamstudy.org to practice. This may not be time efficient for existing Hams as they would already be familiar with much of the syllabus.
- **Recommended study plan:** <https://hamstudy.org/>
- Directly get yourself familiarized with the questions through the **study mode** in *hamstudy.org* website. You can refer to the manuals or do a web search on topics as and when needed.
- hamstudy.org uses spaced repetition with flash cards to help you remember the answers
- The website also accompanies solutions with explanation for each question. As a bonus, they also provide hints to memorize the answers for some questions
- https://hamstudy.org/content/study_tips

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