

Amateur Radio Operator's Certificate of Proficiency – Practical Assessment

(Foundation, Standard and Advanced)

Candidate Name:	
Assessor Name:	
Date of Assessment:	
<u>Instructions to Assessors</u>	
<ol style="list-style-type: none"> 1. The practical assessment is to be confined primarily to Section 8 of the Foundation Syllabus. Questions/assessment task can be drawn from Sections 2 and 8 – licence conditions and safety. Note: The Standard and Advanced syllabi have corresponding and identical practical sections. 2. The assessment time should be limited to no longer than 40 minutes. 3. Many elements of competency can be combined. For example, elements of competency requiring “on-air” operation could be completed in one session with the candidate or if necessary broken in a number of sessions. 4. Candidates must be marked Competent in all elements. A 100% pass mark is required. 	

Element of Competency	Method	Performance Criteria	Assessor (C/NYC)
1. Types of transmission lines and identify balanced and unbalanced transmission lines.	Using examples or photographs of balanced and unbalanced transmission lines.	Identify correctly three types of transmission lines as coaxial or parallel line.	<input style="width: 100%; height: 20px;" type="text"/>
		Identify the types of transmission line as balanced or unbalanced.	<input style="width: 100%; height: 20px;" type="text"/>
2. Identification or common coaxial connectors.	Demonstrate 3 types of coaxial connector by using examples, photographs or diagrams.	Identify at least two of the three types present. To be PL-259, BNC, N-Type. No other type is required.	(C/NYC) <input style="width: 100%; height: 20px;" type="text"/>
3. Testing of transmission lines.	Either: Conduct a continuity test on a coaxial line with provided equipment; <u>Or</u> Oral responses on how such a continuity test would be performed and interpreted.	Either: Show method and understanding of results with the provided equipment <u>Or</u> . Give a description of the test and an explanation of the results.	(C/NYC) <input style="width: 100%; height: 20px;" type="text"/>
4. Identification of common antennas.	Using examples or diagrams of five antenna types (the assessor's picture chart may be used). (Beam/Yagi, Vertical, Folded dipole, Centre Fed Dipole, End Fed Long Wire)	Four of the five example antennas, to be identified correctly.	(C/NYC) <input style="width: 100%; height: 20px;" type="text"/>
5. Simple choke filter	Using examples of an RF choke, or utilise the assessor's picture chart to show examples.	Describe the properties and functions of a RF choke	(C/NYC) <input style="width: 100%; height: 20px;" type="text"/>
6. Identification of electronic symbols	Utilising the assessor's symbol chart, identify at least five (5) unlabelled symbols 2 (two) of which must be antenna and earth.	Five (5) symbols correctly identified two of which must be antenna and earth.	(C/NYC) <input style="width: 100%; height: 20px;" type="text"/>

<p>7. Demonstrate safely the connection of a transmitter/receiver to a power supply, microphone, transmission line and antenna.</p>	<p>Either: Connect a transceiver in a logical manner to an antenna, SWR meter and power supply using equipment supplied. <u>Or.</u> Describe how to do the above.</p>	<p>Demonstrate that the setup is safely and correctly performed.</p>	<p>(C/NYC) <input type="checkbox"/></p>
<p>8. Recall, using the relevant LCDs and band plans, the frequencies and emissions that maybe used under a Foundation Licence. Recall that the amateur band plans by agreement play an important role in managing interference between amateur stations.</p>	<p>Provide a copy of the current Licence Condition Determination. And ask for the band limits of any four (4) bands chosen by the assessor to be identified.</p>	<p>Correctly identify four (4) amateur bands and show an understanding of frequency band edges.</p>	<p>(C/NYC) <input type="checkbox"/></p>
<p>9. Requirement not to transmit on frequencies in use.</p>	<p>Provide a tuned, fully adjusted and ready to use Amateur Radio station on HF and VHF or UHF. Require demonstration of the necessity to listen on a frequency prior to making a transmission and this may include adjusting and opening the squelch.</p>	<p>Demonstrating the necessity to listen on frequency prior to transmission and need to adjust the receiver as required.</p>	<p>(C/NYC) <input type="checkbox"/></p>
<p>10. Operating Practices.</p>	<p>1) Provide a tuned, fully adjusted and ready to use Amateur Radio station on HF and VHF or UHF. Demonstrate making on-air calling procedures for HF and VHF or UHF. https://www.acma.gov.au/amateur-operating-procedures . This task can include demonstrating the protocols required before transmitting.</p> <p>2) Demonstrate how the signal strength meter is used in conjunction with an RS or RST signal report. Either. Using the radio as above demonstrate the use of the Signal Strength meter on air. Or. Using the assessor chart supplied provide an explanation of signal reports.</p>	<p>Demonstrating the procedure for calling a distant station. Using the correct protocol.</p> <p>Demonstrating an understanding of the methodology, structure and significance of signal reports.</p>	<p>(C/NYC) <input type="checkbox"/></p> <p>(C/NYC) <input type="checkbox"/></p>
<p>11. Operating through a repeater and purpose of breaks in transmissions.</p>	<p>Demonstrate an understanding of the use of voice repeaters with and without CTCSS or DTMF tones. This may be conducted on air or by oral explanation</p> <p>Explain the purpose of and importance of breaks in transmissions on HF and VHF or UHF.</p>	<p>Demonstration of an understanding of voice repeaters and the use of CTCSS and DTMF tones.</p> <p>Explanation of the need for breaks in radio transmissions.</p>	<p>(C/NYC) <input type="checkbox"/></p> <p>(C/NYC) <input type="checkbox"/></p>
<p>12. Making a CQ call and changing to a working frequency.</p>	<p>By use of an Amateur Radio station after making a contact with another station, demonstrate the correct protocol for changing to another frequency. May be completed as part of another element of competency requiring on-air operation.</p>	<p>On-air successfully establishing a contact and then changes to another frequency and re-establishes contact on that frequency with the contact station and exchanging a signal report.</p>	<p>(C/NYC) <input type="checkbox"/></p>

13. Abbreviations.	Demonstrate the history, development and purposes of both the Q-codes. And the Phonetic Alphabet. (Knowledge of specific codes or letters is NOT required.)	Provide knowledge and the purpose of the Q-codes and Phonetic Alphabet that confirms the importance of clear communication as a part of good amateur radio practice.	(C/NYC) <input type="checkbox"/>
14. Transmitter measurements including Measurement of SWR and Correcting high SWR.	<p>The measurement of output power of a transmitter should be demonstrated together with a knowledge of adjusting the transmitter power to within legal limits. This may be performed using an Amateur Radio station on SSB connected to a dummy load, or by oral explanation.</p> <p>Ideally with the use of an antenna connected station a demonstration of how an SWR measurement is made and the acceptable limits being equal or less than 1.5:1 or this may be performed by oral explanation.</p> <p>Identification is required of the methods available to correct an antenna system that may have a high SWR. (i.e. alter antenna length or use ATU/AMU).</p>	<p>A demonstration and/or explanation of output power and legal limits.</p> <p>A demonstration or explanation and interpretation of SWR measurements.</p> <p>An explanation of what methods may be utilised to fix a high SWR.</p>	(C/NYC) <input type="checkbox"/> (C/NYC) <input type="checkbox"/> (C/NYC) <input type="checkbox"/>
15. Dangerous voltages and currents	Understand the dangers of high voltage (electric shock and jump to earth) and high currents (heat, burning and fire)	Demonstration of an awareness of the dangers of both high voltages and currents.	(C/NYC) <input type="checkbox"/>

<u>Student Signature:</u>	REMOTE ASSESSMENT	<u>Date:</u>	
<u>Assessor Signature:</u>		<u>Date:</u>	