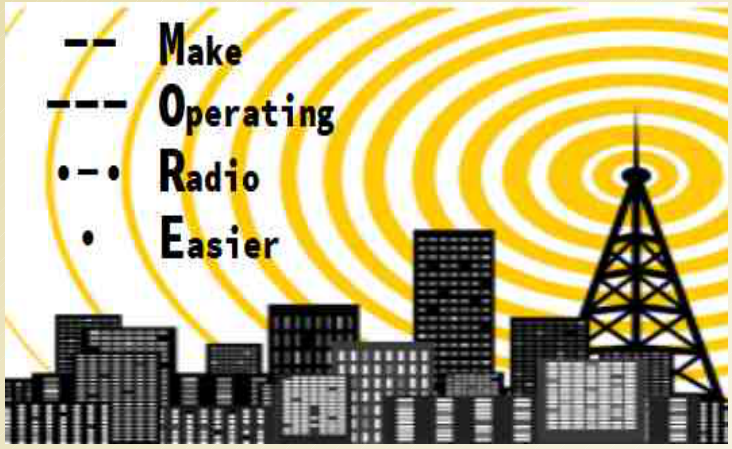
Technician Question Pool
July 2022 to June 2026

The MORE Project

http://n2re.org/m-o-r-e-project



Antennas & Feed Lines
No-Nonsense pages 54 - 57

Feed lines and connectors

Feed lines connect radios to antennas. There are many diferent types of feed lines, including coaxial cable, ladder line, twin lead, and open-wire feed line, but coaxial cable is the most common type.

The smaller the diameter of the coaxial cable, the higher the losses will be at higher frequencies. Also, the longer the feed line, the higher the losses.

T9B03

Why is coaxial cable the most common feed line for amateur radio antenna systems?

A. It is easy to use and requires few special installation considerations
B. It has less loss than any other type of feed line
C. It can handle more power than any other type of feed line
D. It is less expensive than any other type of feed line

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T5C12

What is impedance?

A. The opposition to AC current flow
B. The inverse of resistance
C. The Q or Quality Factor of a component
D. The power handling capability of a component

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T5C05

What is the unit of impedance?

A. The volt
B. The ampere
C. The coulomb
D. The ohm

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B. 50 ohms
C. 600 ohms
D. 12 ohms

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What happens as the frequency of a signal in coaxial cable is increased?

A. The characteristic impedance decreases
B. The loss decreases
C. The characteristic impedance increases
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What is the electrical difference between RG-58 and RG-213 coaxial cable?

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B. RG-58 cable has two shields
C. RG-213 cable has less loss at a given frequency
D. RG-58 cable can handle higher power levels

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Which of the following types of feed line has the lowest loss at VHF and UHF?

A. 50-ohm flexible coax
B. Multi-conductor unbalanced cable
C. Air-insulated hard line
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Which of the following is a source of loss in coaxial feed line?

A. Water intrusion into coaxial connectors
B. High SWR
C. Multiple connectors in the line
D. All of these choices are correct

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A. Moisture contamination
B. Solder flux contamination
C. Rapid fluctuation in transmitter output power
D. Operation at 100% duty cycle for an extended period

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B. Ultraviolet light can increase losses in the cable's jacket
C. Ultraviolet and RF signals can mix, causing interference
D. Ultraviolet light can damage the jacket and allow water to enter the cable

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What is a disadvantage of air core coaxial cable when compared to foam or solid dielectric types?

A. It has more loss per foot
B. It cannot be used for VHF or UHF antennas
C. It requires special techniques to prevent moisture in the cable
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T9B07

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A. They are preferred for microwave operation
B. They are watertight
C. They are commonly used at HF and VHF frequencies
D. They are a bayonet-type connector

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T9B06

Which of the following RF connector types is most suitable for frequencies above 400 MHz?

A. UHF (PL-259/SO-239)
B. Type N
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A. Local thunderstorm
B. Loose connection in the antenna or feed line
C. Over-modulation
D. Overload from a strong local station

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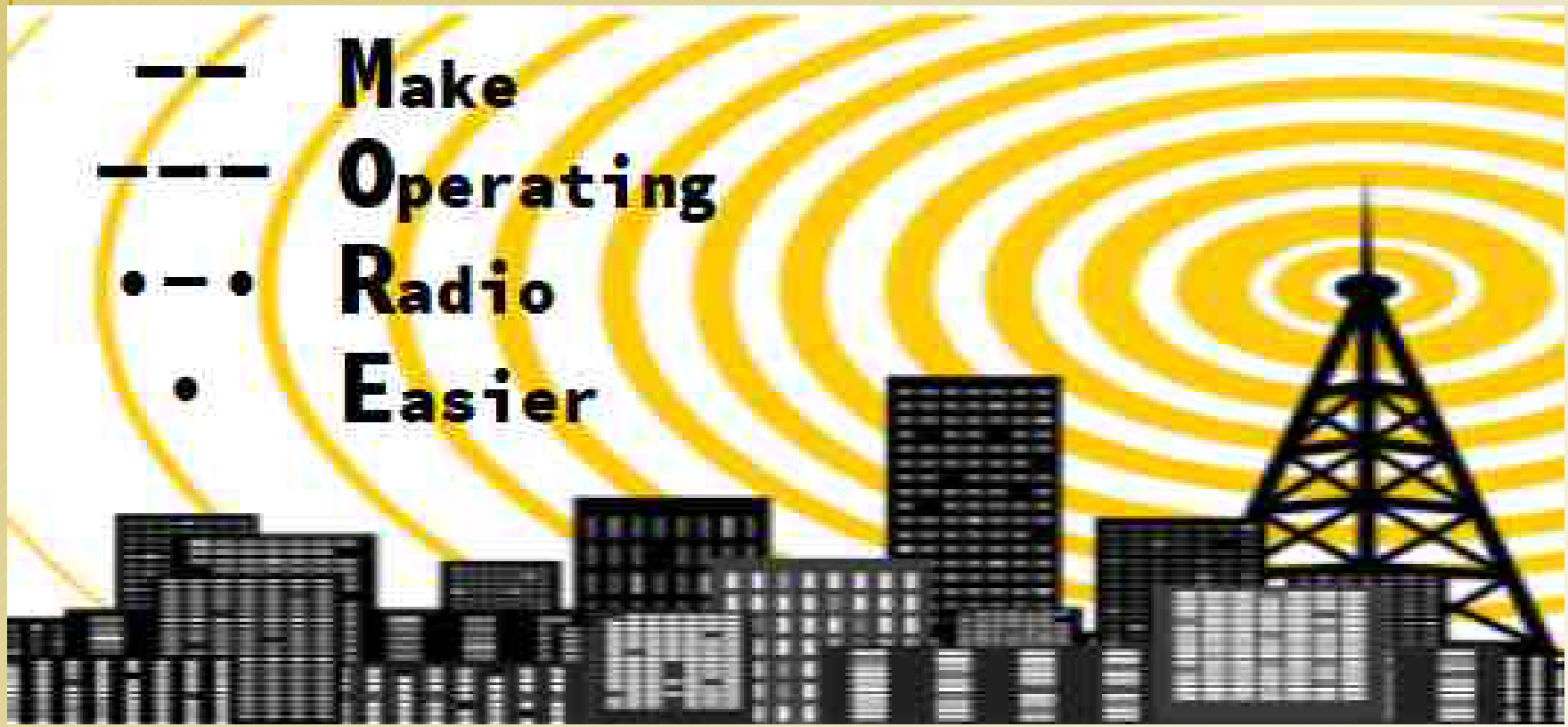

A non-profit initiative by the IEEE and ARDC to increase the numbers of youth (12-18) and non-males in Amateur Radio. Participants earn FCC licenses and receive free 2-way radios.

For MORE information: n2re.org/m-o-r-e-project
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