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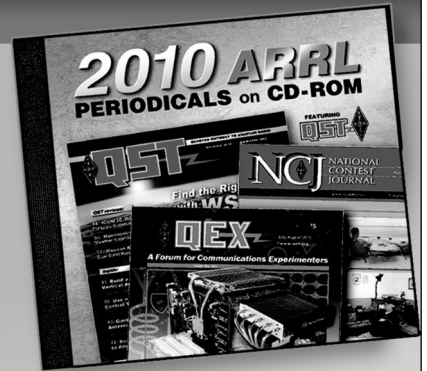
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QST Issue: Sep 1966

Title: Tulsa Council of Amateur Radio Clubs at International Petroleum Exhibition (photos)

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Article 41 of the Radio Regulations, Geneva, 1959, prohibits communications between amateurs in different countries if one of the countries objects to such communications. It limits international communications by amateurs to messages of a technical nature relating to tests and to remarks of a personal nature for which, by reason of their unimportance, recourse to the public telecommunications service is not justified. It prohibits international communications on behalf of third parties; that is, on behalf of anyone other than the licensed amateurs who are in communication with one another. (The latter provision can be modified by special agreement between countries, and the U.S. has arrangements with 20 countries. The list appears in the *License Manual* and in frequent issues of *QST* -- page 79 in the current issue.)

3. *What is the basic usage of a capacitor?*

The capacitor's basic usage is to store electrical energy at one time and release it later, in accordance with the design of a particular circuit to accomplish a particular aim. It is also used to block the flow of direct current while permitting the effective flow of alternating current through the circuit of which the capacitor is a part.

4. *For what reasons are height limitations placed on antenna structures for amateur stations?*

The Commission's rules for the amateur service contain regulations on antenna height so as to prevent amateur antennas from becoming a hazard to air navigation.

5. *What methods are available for determining whether the transmitter output frequency is within the authorized frequency band?*

The frequency of the transmitted signal can be measured by a frequency meter, a calibrated wave-meter or a receiver of known accuracy.

Comparison of these instruments with standard-frequency broadcasts of the National Bureau of Standards (WWV, WWVH, WWVB, etc.) should be made frequently.

6. *What is the most likely defect of a tube which has proper heater voltage at the socket but which fails to warm up?*

The heater is "open" (i.e., broken) so that it no longer provides a complete path for the heater current.

7. *What precaution(s) can be taken to reduce the possibility of shock hazard in electrical equipment?*

Precautions include use of equipment enclosures which prevent contact with any circuits or wiring carrying power; use of chassis ground within an equipment which in turn is connected to an external ground (e.g., a water pipe) in common with other equipments being used at the same time; use of transformer power supplies in preference to "A.c./d.c." types; use of polarized, three-conductor wiring for connection to the regular commercial power sources, including use of the neutral wire; placing antenna wires and feedlines so that there is no possibility of contact with power lines; use of adequately-rated components and wiring to minimize the possibility of breakdown which might cause dangerous voltages to appear at unexpected points; use of bleeder resistors across large capacitors (e.g., in power supplies) to discharge any voltage remaining when the equipment is turned off; use of interlock switches which disable power supplies as equipment enclosures are opened.

8. *The plate voltage in the final stage of an amateur transmitter is normally measured between what points in the circuit?*



When Tulsa, Oklahoma, threw a gigantic International Petroleum Exhibition to nail down its claim as Oil Capital of the World, the local amateurs were right there. Forming the Tulsa Council of Amateur Radio Clubs as a coordinating body, the amateurs produced the station shown inside and out in these two photographs, operating under The Electron Benders, Inc. club call W5OK. The show was open 129 hours in ten days, manned by 150 amateurs and 50 hostesses. Nearly 3,000 contacts were logged and 61 countries were reached. Some 500 formal messages were filed by visitors.