



THE OHM TOWN NEWS

Voice of the Bridgerland Amateur Radio Club

>>>>>>> <http://www.barconline.org> <<<<<<<<

November 2014

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ARRL Affiliated



PRESIDENT'S MESSAGE

Our club is always looking for operating events and opportunities that excite and motivate amateur radio operators to be active, especially on HF. The [ARRL November Phone Sweepstakes](#) will hit the airwaves on November 15-16. The Sweepstakes or “Sweeps” as it is usually called is a contest in which modest stations can do exceptionally well. There’s no need for giant towers and antennas or legal-limit amplifiers, for simple antennas and a “barefoot” HF rig will do just fine. Sweepstakes brings out many US and Canadian operators, and there will be a lot of stations to work on the 160, 80, 40, 20, 15 and 10 meter bands. More stations = more contacts = more fun!



If you'd like to know more about Sweepstakes, download the [Sweepstakes Operating Guide](#) – there are simple explanations of the rules and a list of resource articles and websites to help you get the most from your Sweepstakes weekend.

So get on the air during the sweeps and make contacts throughout the US and Canada. This is an excellent opportunity for you to get that [Worked All States Award](#) with lots of operators on the air and great band conditions.

Don't have a HF rig and want to participate in the sweeps? No problem. BARC will be participating in the sweeps on November 15 at the club ham shack in the Engineering Lab Building room EL224 on the USU campus. The Sweeps start at 2100 UTC and we will be there until 0700 UTC (that's 2 PM MST to midnight). Drop by and we will get you involved with whatever you would like to do, making contacts, logging contacts, or just watching what goes on.



Hope to hear you on the air during sweepstakes or have some fun operating an HF radio at the club ham shack.

A new FCC rule should interest anyone who previously held a General, Advanced, or Amateur Extra class license, let it lapse, and would like to get back into Amateur Radio. The rule took effect on July 21 which now instructs Volunteer Examiners to give credit for Elements 3 (General Class exam) and 4 (Extra Class exam) to an examinee holding an expired Amateur Extra class license, and credit for Element 3 to an examinee holding an expired Advance

or General class license. A long standing provision that gave Element 3 credit to holders of “old” Technician licenses issued before March 21, 1987, when the Technician and General license had the same written exam, has been retained.

(President's Message Continued on page 4)

(President's Message Continued from page 2)

This change means that the FCC will issue a General license to someone who passes Element 2 (the current Technician exam) and demonstrates that they previously held an Advanced or General license without requiring that they retake and pass the Element 3 exam. Similarly, former Extras can regain their full-privileges licenses simply by passing Element 2 exam and showing proof of previously held Extra class license.

So if you know anyone who has an expired General, Advanced, or Amateur Extra class license, and they would like to get back into Amateur Radio, let them know of this Re-Entry into Amateur Radio.

All it may take to rekindle their interest is a reminder of the joy that came with the initial discovery of the world of Amateur radio.

73,
Cordell
KE7IK

Jared (N7SMI) and the DXpedition to Marquesas Islands

Jared ([N7SMI](#)), Grant ([KZ1W](#)), Keith ([VE7KW](#)), and Don ([VE7DS](#)) operated amateur radio [DXpedition](#) station TX7G in the Marquesas Islands (FO-M) October 18-26, 2014 - including during the CQ WW DX SSB contest. Their [location](#) was Hatiheu Village on the North shore of the island of Nuku Hiva. The team operated high power CW, SSB, and RTTY into antennas directly on the beach - 80-10 meters. Marquesas was #69 on the Club Log most wanted list (#41 for Europe) at the time.

The operation is now complete! Total QSO count is over 27,000 with 2,300 QSOs in the contest. It was an interesting adventure with propagation conditions that ranged from phenomenal at times to total radio black out at others. Thank you all for the support of our DXpedition and for being there to answer our calls.



4 Weary travelers arrive - Nuku Hiva

Hatiheu Village Marquesas Islands

Don adjusts verticles whips

Jared N7SMI works the pileups



The view for 8 days

Proxy (Absentee) Ballot and List of Candidates

For year 2015 Officers and Board
Of the Bridgerland Amateur Radio Club

Voting held on Saturday November 8, 2014 at 10:00 A.M.
On the 3rd floor in the Cache County Sheriffs Complex on
200 North and 1225 West, Logan, Utah

Important Instructions: *If you are unable to attend the above meeting and wish to vote you may mail this ballot to any club officer in time to be in their hands before the meeting time noted above, or, you may seal the ballot in an envelope and send it with someone to be handed to a club officer at the meeting. If you need help, please contact any club officer.*
You need to be a current member of BARC to vote

For President	
• Cordell Smart KE7IK	
•	
For Vice President	
• Ted McArthur AC7H	
•	
For Secretary	
• Tammy Stevens N7YTO	
•	
For Treasurer	
• Kevin Reeve N7RXE	
•	
For members of the board (Vote for four)	
• Tyler Griffiths N7UWX	
• Kelly Hansen KF7TDP	
• Laurie Littledike KF7DKM	
• Russell Leikis KE7VFI	
•	
Amend Article IV of the BARC bylaws to add the following:	
• Section 1A: If the Board of Directors determines that more at large Board Members are needed, they shall be elected per Article V and Article XII.	Yes _____ No _____

You **MUST** get approval from a write-in candidate before submitting their name for office.
Additional nominations will be accepted from the floor at the meeting, with the approval of the nominee. Ballot can be mailed to **BARC P.O. Box 111 Providence Utah 84332**. It must reach the post office box by November 7th. Send in your ballot or come in person.
If mailed please put your name on the mailing envelope only.

BYLAWS of THE BRIDGERLAND AMATEUR RADIO CLUB, INC

Article I – NAME

Section 1: The name of this organization shall be **THE BRIDGERLAND AMATEUR RADIO CLUB, INC.**

Article II – PURPOSE

Section 1: The purpose of this organization shall be to unite radio amateurs in fellowship, to aid those not licensed in learning code and theory, and to provide service to the community especially in times of emergency.

Article III – MEMBERSHIP

Section 1: All persons having a bona fide interest in amateur radio, whether licensed or not, shall be eligible for membership.

Section 2: Application for membership shall be submitted to a club Officer. A member charged with conduct unbecoming a member of this Club may be expelled by a two-thirds (2/3) majority vote of the members if the Board of Directors (Board) has found the charges are sustained by its investigations. An expelled member may not reapply for membership unless approved by the Board.

Section 3: A member shall be defined as one who has submitted an application for membership and paid the appropriate dues.

Article IV – OFFICERS AND BOARD

Section 1: There shall be a Board of Directors which shall consist of the Officers, the immediate past President and two at large Board Members.

Proposed Amendment Section 1A: If the Board of Directors determines that more at large Board Members are needed, they shall be elected per Article V and Article XII.

Section 2: The Officers of the club shall be: President, Vice-President, Secretary, and Treasurer.

Section 3: All Officers and Board members shall be members of the club in good standing.

Section 4: Any person elected to the office of President shall have served at least one year as Officer or Board member of the club, whether before or after incorporation.

Section 5: The immediate past president shall serve the subsequent year as a member of the Board.

Section 6: Committee chairpersons of the various committees required shall be appointed by the Board. Additional members of said committees shall be appointed by the committee chairperson.

Article V – ELECTIONS

Section 1: The Officers and Board members of the club shall be elected for the term of one (1) year and until such time as their successors shall have been elected and take office. Newly elected Officers and Board members shall take office the first day of January of the next year.

Section 2: The President shall appoint a nominating committee of three (3) members, at least one (1) of whom shall be a member of the Board. They will present their list of nominations by notification as specified in Article XII Section 6.

Section 3: Election of Officers and Board members shall be held at the November Club meet-

ing. Nominations will be accepted from the floor. Those receiving the largest number of votes shall be elected.

Section 4: Vacancies occurring between elections must be filled by a special election at a general meeting after which the withdrawal or resignation is made known. Nominations for replacement shall be made by the Board. Nominations shall also be accepted from the floor. Voting shall be conducted per Article XII and the person receiving the largest number of votes will be the new Officer. The newly elected Officer shall take office immediately.

Section 5: Officers and Board members may be removed by a petition signed by at least ten (10) members and upheld by a three-fourths (3/4) majority vote.

Article VI – DUTIES OF THE BOARD AND OFFICERS

Section 1: The Board shall be the governing body of the Club and as such shall formulate and be responsible for all matters of policy. Decisions of the Board shall be reached upon majority vote; and thereupon the President shall execute the decisions so made or the policies so formed.

Section 2: The newly elected President shall call an organizational meeting of the old and new Officers and Board members within 30 days of the election meeting.

Section 3: The President shall preside at all meetings of this Club; shall enforce due observance of the by-laws; shall decide all questions of order; shall sign all official documents that are adopted by the Club; and shall perform all customary duties pertaining to the office of President.

Section 4: The Vice-President shall possess all the powers and assume all duties of the President in the event of the absence, disability, refusal, or failure to act, of the President. The Vice-President shall further assist the President in all functions of that office and shall perform such other duties as are properly assigned by the Board.

Section 5: The Secretary shall countersign all deeds, leases, and conveyances executed by the corporation; shall keep a record of all proceedings of all meetings; keep a roll of members and the current status of these members; shall keep a roll of members present at meetings; accept applications for membership; keep a copy of the Articles of Incorporation and By-laws present at all meetings; carry on all correspondence; read communications received at each regular meeting, and give notice of all meetings.

Section 6: The Treasurer shall receive and disburse all club funds, including dues from members; shall keep an accurate record of all such transactions; and shall give a financial report to the Board and members upon request.

Article VII – MEETINGS

Section 1: There shall be a general Club meeting held monthly. This meeting schedule may be changed, subject to a decision by the Board.

Section 2: Special meetings of the members may be called at any time by the President, provided the entire Club membership is notified in writing of such special meeting ten (10) days prior to the meeting. Notification may be done per Article XII, Section 6. The President shall be required to call a special meeting upon receipt of a written request signed by ten (10) or more members.

Section 3: The Board shall meet in a general or special meeting in order to transact busi-

ness. The Board shall normally meet once a month. All meetings of the Board shall require ten (10) days notice to the Board members.

Section 4: All meetings of the Board shall be open to all Club members.

Article VIII – DUES

Section 1: The annual dues will be recommended by the Board and approved by the members. The dues year shall be January 1 to December 31. Pro-rated dues will only apply to new licensees or those new in the area. The Board has the authority to accept dues paid from any valuable consideration.

Article IX – AMENDMENTS

Section 1: The by-laws may be amended by a two-thirds (2/3) majority vote at a general meeting, providing that members shall have been notified per Article XII, Section 6. Proposals for amendments shall be submitted in writing to a Club Officer.

Article X – RULES

Section 1: Roberts's rules of Order shall govern all proceedings of this Club.

Article XI – BUDGET AND REPORTING

Section 1: The Board shall give an annual report to the members on the activities of the Club with a financial report including the receipt and disbursement of Club funds. The Board shall present an annual budget after receiving input from committee members and members at large. The members shall vote upon said budget within the guidelines of said budget. A vote of the members will not have to be given again unless the budget is changed materially or exceeded in total.

Article XII – VOTING

Section 1: Only members in good standing shall be entitled to vote.

Section 2: All voting shall be by majority vote of the members present, unless specially stated otherwise in these articles.

Section 3: Voting for the election of the Board and Officers; expulsion of a member; Board member or Officer; adoption or amendments of the By-laws; approval of the annual budget and dues; and other issues as designated by the Board shall be conducted as stated below in Section 4 through 6.

Section 4: Voting on matters specified in Section 3 of this Article shall be by secret ballot of members in attendance and by members Proxies.

Section 5: A Proxy shall be included with the notification as specified in Section 6 below. Proxies may be given to a Club Officer or any other member by mail or in person. Proxies may be specific or general. The form of the proxies, ballots and balloting procedures shall be determined by the Board.

Section 6: Notification to members of the subject matter of any vote to be taken shall be by publication in the OHM TOWN NEWS the issue prior to the meeting in which the voting is to be done. The notification shall include the time, date and place of the meeting in which the vote will be taken. The notification shall be sent no later than seven (7) days prior to the scheduled meeting date.

The ARRL Letter for October 16, 2014

ARRL Executive Committee Adopts Mobile Amateur Radio Operation Policy

The ARRL Executive Committee has adopted an updated [Policy Statement](#) on Amateur Radio mobile operation. While agreeing that driver inattention is a leading cause of auto accidents and that concern over driver distraction "is not unreasonable," the policy cites Amateur Radio's 70-year history of two-way mobile operation as evidence that such radio use does not contribute to driver inattention. The policy points out that Amateur Radio operation differs from cell phone communication, in part because the device need not be held to the face to listen, no text messaging is involved, and mobile ham operators only need to pick up a microphone to make "brief and infrequent" transmissions.

Prompting the policy update is the 2012 federal law "Moving Ahead for Progress in the 21st Century" or MAP-21, which requires states to enact and enforce statutes that prohibit "texting through a personal wireless communications device while driving" in order to qualify for federal grants to support a state's program. The League "encourages the use of the language in MAP-21 in state statutes and municipal ordinances dealing with mobile telephone and mobile text-messaging limitations," the updated policy states.

Many states already have statutes in place that restrict the use of cell phones and other communication devices to a greater or lesser degree, and several exempt Amateur Radio. A lot of these laws predate MAP-21, however, and because MAP-21 permits no specific exception for Amateur Radio operation, some may need to be revised in order to comply with its requirements. The ARRL is urging states or localities to adopt motor vehicle codes that narrowly define the class of regulated devices, in order to exclude Amateur Radio specifically.

"Given the necessity of unrestricted mobile Amateur Radio communications in order for the benefits of Amateur Radio to the public to continue to be realized, ARRL urges state and municipal legislators considering restrictions on mobile cellular telephone operation and mobile text messaging to narrowly define the class of devices included in the regulation, so that the class includes only full-duplex wireless telephones and related hand-held or portable equipment," the League policy recommends.

The ARRL policy suggests statutory language for state and local motor vehicle codes that defines a "personal wireless communications device" as one through which "commercial mobile services, unlicensed wireless services, and common carrier wireless exchange access services are transmitted." This would include such devices as cell phones and anything used for text messaging or paging, but the suggested wording specifically excludes "two-way radio communications equipment, such as that used in the Amateur Radio Service."

For states or localities considering banning all but hands-free cell phone use, the ARRL recommended wording that would prohibit the use of a personal wireless communications device "in any manner" while driving, unless the motorist is using hands-free capability. The suggested statutory language would not apply to anyone using the device while the vehicle is parked or "to contact or receive calls from an emergency response vehicle or agency."

ARRL CEO David Sumner, K1ZZ, [addressed](#) the issue in his November 2013 QST "It Seems to Us" editorial, "Distracted Driving Legislation: Proceed with Caution." Read [more](#).

A Century of Amateur Radio and the ARRL

The October 1990 QST reported on the 3Y5X Bouvet Island DXpedition of 1989-1990. This \$330,000 venture -- funded by the participants and by donations from hams around the world -- produced nearly 50,000 contacts on all HF bands on SSB, CW, and RTTY.

The first World Radiosport Team Championship was held in Seattle in 1990, as part of the International Goodwill Exchange Event.

Marking the 75th anniversary of QST, the magazine's December 1990 issue published an overview of those 75 years, written by WJ1Z. The article noted that at the time the first issue of QST was published, the League's membership was 635.

On October 28, 1990, W5UN worked his 100th country via EME (moonbounce). Not content to rest on his laurels, by November 4 he was up to 104 countries. Dave might have made EME DXCC earlier, had it not been for a tornado that wrecked his first 32 dBi-gain moonbounce array.

The FCC instituted the new "codeless" Technician license on Valentine's Day 1991. Within the first two weeks, 313 people had applied, and the first such license was issued to N3IFY.

An interesting airplane accident story was published in March 1991 *QST*. Gary, V31KX, was aboard a flight in Belize that went down on November 14, 1990. After the forced landing, Gary retrieved his 2 meter handheld from his luggage, connected it to the aircraft's 121 MHz antenna and made a successful call for help.

Operation Desert Storm began in 1990, and MARS stations were activated to handle personal messages, including phone patches, between members of the military and their families back home -- a major morale-booster. Those efforts of American amateurs operating under their counterpart MARS call signs generated a great amount of positive publicity for Amateur Radio.



The 3Y5X Bouvet Island QSL card.

The May 1991 *QST* article, "Last Voice from Kuwait," told how Abdul, 9K2DZ, hid his amateur gear from Iraqi soldiers when they came to confiscate it. When they demanded his radio equipment, he gave them a broken radio! After that, he used AMTOR and APLINK to handle health-and-welfare messages in and out of Kuwait. Many of Abdul's messages were forwarded to the media, Department of Defense, Department of State, and the White House. Again, good reviews for Amateur Radio.

During 1991, many hams made contact with the Soviet *Mir* space station, thanks to the efforts of operator Musa, UV3AM. Another Amateur Radio first occurred in 1991: The entire crew of the space shuttle *Atlantis* on its STS-37 mission (April 5-11, 1991) was comprised of hams, and Space Amateur Radio EXperiment (SAREX) ham gear was aboard. -- *Al Brogdon, W1AB*

The ARRL Letter for October 23, 2014 A Century of Amateur Radio and the ARRL

A first took place on Space Shuttle mission STS-37. SAREX (Shuttle Amateur Radio EXperiment) provided live communication from the shuttle into many school classrooms to teach the students about space exploration and Amateur Radio.

In July 1991, N6CA and KH6HME set a new record on 3456 MHz between California and Hawaii. Each was running 5 W to a 4-foot dish.

In 1992, after 8 years as ARRL President, Larry Price, W4RA, declined to run for re-election. The League's Board of Directors subsequently chose him as the next International Affairs Vice President, which provides liaison with the IARU, which Price served as Secretary. George Wilson, W4OYI, succeeded Price as ARRL President.

N7FKI and W7ZOI reported in the March 1992 *QST* that they had built a one-transistor 10 meter CW transmitter and made contacts with it using lemon power -- essentially a cell made by inserting appropriate electrodes into a lemon. If life gives you lemons, make contacts!

During the early 1990s, interest in digital communication grew, and *QST* published many articles on the subject that helped fan the flames. Also, hams became interested in the old concept of direct-conversion receivers. KK7B presented one of the best in the August 1992 issue of *QST*. Another old receiver circuit was also revived -- the regenerative receiver. WJ1Z described one for 40 meters in the September 1992 issue of *QST*.

By the early 1990s, digital signal processing (DSP) had made its appearance, and had begun to be used by both homebrewing hams and equipment manufacturers.

A September 1992 *QST* article, "ABC: The First Electronic Digital Computer," recounted the fascinating tale of the first real computer, the Atanasoff-Berry computer -- a vacuum tube device -- designed in 1939 and 1940 by university professor John Atanasoff and built by electrical engineering student Clifford Berry, W9TIJ. -- *Al Brogdon, W1AB*



The Atanasoff-Berry computer used racks of vacuum tubes.

The ARRL Letter for October 30, 2014

Colorado EOSS-202 Balloon Flight Carrying Amateur Radio Payloads "Awesome"

An Edge of Space Sciences ([EOSS](#)) balloon flight, launched on October 25 by students from Colorado and New Mexico, and carrying three [ham radio payloads](#) into near-space surpassed its planned altitude. The mission, designated [EOSS-202](#), took off under a clear sky from [Deer Trail](#), Colorado. The Douglas County, Colorado, STEM School and STEM Academy and Spartan Amateur Radio Club, AB0BX, sponsored and coordinated the balloon flight.

"It was awesome," said Paul Veal, N0AH, a Rocky Mountain Division Assistant Director and AB0X trustee. "It was simply the best weather any of us could have hoped for. According to EOSS, our flight reached one of the highest altitudes they've had in years -- nearly 104,000 feet!"

Veal said a large number of young students participated "with great enthusiasm throughout the morning cold at sunrise throughout the heat of the day." Several of the more than 2 dozen students taking part in the project are radio amateurs.

The "AB0BX Spartan Space Sciences" mission carried seven student-designed [payloads](#) aloft. All payloads were retrieved after the balloon burst, at first tumbling and then descending gently to Earth borne by a parachute. Video from the ground was able to capture the balloon's burst as it attained its maximum altitude. The onboard ham radio payloads served to track the balloon during flight and recovery and also transmitted telemetry during the mission.



The EOSS-202 mission balloon just after launch, trailing its payload string.

Veal said the only major snafu involved the onboard Go-Pro cameras, which were equipped with 8 GB cards. "We really needed 32 GB [cards], so we got awesome pictures but only up to around 80,000 feet," he explained.



Volunteers prepare AB0BX Spartan Space Sciences mission payloads on launch day.

Veal said a parent-led chase team convoy was able to see with the naked eye the sun's light reflecting from the balloon when it was more than 84,000 feet up. "This included several parents and students who tagged along in 13 vehicles -- around 50 of us altogether." The balloon traveled more than 70 miles, 19 more than predicted.

"The farming-ranching community in and around the recovery area near Cope, Colorado, gladly helped us to recover the balloon on private land," Veal said. "All payloads were recovered with no serious damage."

"Data from the various experiments, along with photos and videos from EOSS and spectators, will be collected in the next few weeks," said Veal. "I am hoping that the school can create a student team to formulate a digital book to count toward credit." As a result of the balloon project, he said, several project-based lesson plans for grades 6 through 12 can be formulated along STEM standards.

KP1-5 Project Gets Permission to Activate Navassa Island (KP1) in January 2015

[The KP1-5 Project](#) has received word from the US Fish & Wildlife Service (USFWS) that it may [activate](#) Navassa Island (KP1) in January 2015. The DXpedition, using the call sign K1N, will be a maximum of 14 days, and exact dates will be determined by USFWS mission requirements and weather windows.

"Our experienced team of 15 is complete and is ready for the challenge," said an October 22 KP1-5 Project news release from President Bob Allphin, K4UEE, and Vice President Glenn Johnson, W0GJ. "The weeks ahead will be extremely busy as the team has less than 90 days before the DXpedition comes on the air."

As the announcement explained, January is the month of minimum bird nesting activity, and the USFWS had asked that the operation be completed during that month. Weather is unpredictable in January, however, and because Navassa is surrounded by cliffs, a safe landing by boat would be difficult or impossible.



An aerial view of the east coast of Navassa Island. [USGS photo]

"For safety reasons and in order to maximize our time on the island and on the air, a helicopter operation is planned," the team's news release said. "Navassa is over 100 miles (160 km) from the nearest helicopter staging point, and as many as 10 round trips will be required at the beginning and end of the operation. Obviously, this means that there will be a significant cost for activating this No 1 ranked DXCC entity."

The KP1-5 Project said it will be working with USFWS over the next few weeks to firm up details. The KP1-5 Project team has committed to fund 50 percent of the DXpedition's tab. "We are hopeful the DX community at large will fund the remainder," The announcement concluded.

[INDEXA](#) has announced that it will provide substantial financial support for the Navassa Island KP1-5 Project DXpedition. More than half of the DXpedition team members are IN-DEXA officers, directors, and members.

In other pending-DXpedition news, landing permission has been granted by the Norwegian Polar Institute for a [DXpedition on Bouvet](#) (3Y/B). Landing permission covers the period from mid-January to mid-April 2016.

A Century of Amateur Radio and the ARRL

A photo story in "Up Front in QST" in January 1993 noted that President George H.W. Bush had made an official visit to Springfield, New Jersey, to meet with local and state officials. One of those officials was Jeff, WB2DCJ, who coaxed the President into greeting some locals on 2 meters. "Hey, how are you guys doing?" Bush said on the radio. "Nice to talk with you."

That same issue of QST noted that DXCC credit was now being given for contacts with three new entities -- Croatia, Slovenia, and Bosnia-Herzegovina -- that emerged from the breakup of the former Yugoslavia.

By 1993, as the number of licensed amateurs increased, so did the number of intentional violations of FCC rules. The Commission responded by getting tough and levying severe fines on intentional wrongdoers, and in some cases taking offenders to court.

The July 1993 issue of QST published the tale of K3KMO's 10,500 mile motorcycle trip from Maryland to Alaska and back, all the while operating HF CW in motion. CW contacts with hams all over the world helped while away the long hours driving along the road.

In the 1970s, the FCC banned amateur communications for business purposes. The vague wording of those rules became interpreted in a progressively stringent manner over the years, however, curtailing the use of Amateur Radio to support even meritorious public service activities. In July 1993, the FCC changed its rules to allow hams to provide communication for worthwhile public service activities. The final rules were adopted almost verbatim from the suggestion made by ARRL.

The 10th anniversary of Amateur Radio as part of NASA space shuttle missions was observed in 1993, with five shuttle crews requesting that ham radio be part of the payload that year. -- *Al Brogdon, W1AB*



Questions for Technician Class License

1. (T1B05) Which 70 cm frequency is authorized to a Technician Class license holder operating in ITU Region 2?
 - A. 53.350 MHz
 - B. 146.520 MHz
 - C. 443.350 MHz
 - D. 222.520 MHz
2. (T2B01) What is the term used to describe an amateur station that is transmitting and receiving on the same frequency?
 - A. Full duplex communication
 - B. Diplex communication
 - C. Simplex communication
 - D. Multiplex communication
3. (T3B10) What frequency range is referred to as HF?
 - A. 300 to 3000 MHz
 - B. 30 to 300 MHz
 - C. 3 to 30 MHz
 - D. 300 to 3000 kHz
4. (T4A10) What is the source of a high-pitched whine that varies with engine speed in a mobile transceiver's receive audio?
 - A. The ignition system
 - B. The alternator
 - C. The electric fuel pump
 - D. Anti-lock braking system controllers
5. (T5B08) How many microfarads are 1,000,000 picofarads?
 - A. 0.001 microfarads
 - B. 1 microfarad
 - C. 1000 microfarads
 - D. 1,000,000,000 microfarads
6. (T6B10) What are the three electrodes of a PNP or NPN transistor?
 - A. Emitter, base, and collector
 - B. Source, gate, and drain
 - C. Cathode, grid, and plate
 - D. Cathode, drift cavity, and collector
7. (T7B05) How can overload of a non-amateur radio or TV receiver by an amateur signal be reduced or eliminated?
 - A. Block the amateur signal with a filter at the antenna input of the affected receiver
 - B. Block the interfering signal with a filter on the amateur transmitter
 - C. Switch the transmitter from FM to SSB
 - D. Switch the transmitter to a narrow-band mode
8. (T8C04) Which of the following is good procedure when contacting another station in a radio contest?
 - A. Be sure to sign only the last two letters of your call if there is a pileup calling the station
 - B. Work the station twice to be sure that you are in his log
 - C. Send only the minimum information needed for proper identification and the contest exchange
 - D. All of these choices are correct
9. (T9A14) Which of the following terms describes a type of loading when referring to an antenna?
 - A. Inserting an inductor in the radiating portion of the antenna to make it electrically longer
 - B. Inserting a resistor in the radiating portion of the antenna to make it resonant
 - C. Installing a spring at the base of the antenna to absorb the effects of collisions with other objects
 - D. Making the antenna heavier so it will resist wind effects when in motion
10. (T0B08) What is considered to be a proper grounding method for a tower?
 - A. A single four-foot ground rod, driven into the ground no more than 12 inches from the base
 - B. A ferrite-core RF choke connected between the tower and ground
 - C. Separate eight-foot long ground rods for each tower leg, bonded to the tower and each other
 - D. A connection between the tower base and a cold water pipe

(For answers to test questions see page 14)

BARC Club Officers

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Answers to questions on page 13: 1-C, 2-C, 3-C, 4-B, 5-B, 6-A, 7-A, 8-C 9-A, 10-C

