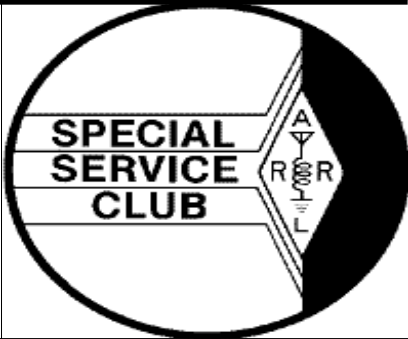


February 2018  
Vol. 43, #2

Washington Amateur Communications Inc.



A 501-C3 Tax Exempt Organization



*Don't Forget the WASH Hamfest!*

Starting at 8 AM, 25 February 2018 @ South Park (see p. 17)

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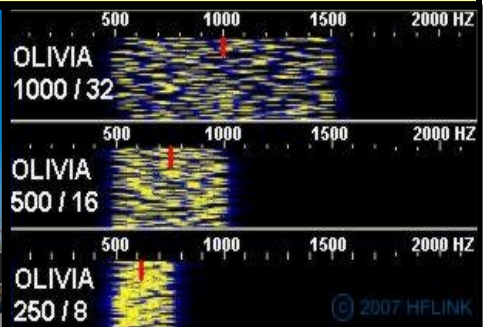
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*WACOM*  
*President's Message*  
*Jan/Feb 2018*



Joe—N3XE

## President's Message, January/February 2018

Winter is a great time to work on projects and prepare for the year ahead. Whether you tested your gear during Winter Field Day last weekend or not, it's always a good idea to evaluate your equipment. I'm in the process of upgrading my portable solar setup so I'll be ready when spring finally arrives.

There has never been a better time to be building equipment. Last year a large group of us built BITX40 radios and got on 40 meters for under \$60. The same manufacturer has a new model, the uBITX, that is multi-band (80-10 meters), easier to construct, has a much better receiver, and is a big improvement over the previous model while remaining extremely economical (\$109).

Lastly, our annual Technician class is coming up at the end of the month so get the word out to any prospective students.

73,

Joe, N3XE

## WACOM OFFICERS, BOARD OF DIRECTORS, STAFF, REPEATERS, AND NETS!

Washington Amateur Communications is a non-profit organization that is dedicated to advancing the principles of Amateur Radio while making it fun for all who participate. We have been affiliated with the ARRL for over 25 years. Our club call sign is WA3COM. Because of our activity in promoting Amateur Radio, including conducting classes, public demonstrations, emergency preparedness and training, studying technical advancements in radio and mentoring of new and soon-to-be hams, WACOM has earned the designation of Special Service Club from the ARRL.

### Membership

- WACOM membership is open to anyone
- Annual Dues:
  - \$20 for individuals
  - \$10 for each additional family member
 (send check & completed form to club treasurer)
- Questions? Contact the WACOM club treasurer.

### Membership Meeting

- 7:30PM (1930 hrs), First Thursday of every month

### Board of Directors Meeting

- 7PM (1900 hrs), Last Thursday of every month

### Mailing Address

WACOM  
c/o Norma Plants N3YJY  
236 Chambers Ridge Road  
West Alexander, Pa 15376-2270

### E-Mail

General Club Correspondence: [wa3com@gmail.com](mailto:wa3com@gmail.com)

### 2017 Club Officers

Joe Caldwell, N3XE; [joe@n3xe.com](mailto:joe@n3xe.com)  
 Vice President: Patrick Degnan Jr., KB3TFN; [pdegnan@gmail.com](mailto:pdegnan@gmail.com)  
 Secretary: Randy Kief, KC3EKZ; [randykief@comcast.net](mailto:randykief@comcast.net)  
 Treasurer: Kathleen Briggs, KC3HBO; [johnw104@comcast.net](mailto:johnw104@comcast.net)

### 2017 Board of Directors

Director: Bob Fischer, KC3AJM; [kc3ajm@outlook.com](mailto:kc3ajm@outlook.com)  
 Director: Dennis Presky, K3PSP; [dpresky@mra1.com](mailto:dpresky@mra1.com)  
 Director: Rob Balogh, KB3ZUS; [robertbalogh@gmail.com](mailto:robertbalogh@gmail.com)

### Newsletter Editor

Ken Frankenbery, AA3GM; [ktfrank3@gmail.com](mailto:ktfrank3@gmail.com)

### Webmaster

Joe Caldwell, N3XE; [n3xe.radio@gmail.com](mailto:n3xe.radio@gmail.com)

### VE Liaison

Bob Kinnear, KI4DHB; [ki4dhb@yahoo.com](mailto:ki4dhb@yahoo.com)

### Radio Room Committee

Patrick Degnan Jr., KB3TFN; [pdegnan@gmail.com](mailto:pdegnan@gmail.com)

### EMCOMM Training Officer

Brad McCarrell, KC3EDQ; [brad\\_ml@verizon.net](mailto:brad_ml@verizon.net)

### Repeaters

**K3PSP** - 146.790+ MHz, EchoLink node - WA3COM-R  
 147.285+ MHz (Scenery Hill, PA)  
 145.250 - MHz (West Alexander)  
 147.390+ MHz (Smith Township)  
 147.315+ MHz (Greene County)  
**W3CYO** - 145.490 MHz, 224.4 MHz, 443.300 MH z

### Digital Net

- Mondays at 8PM (2000 hrs), on K3PSP Repeater
- Bob, KC3AJM Net Control

### 2 Meter Public Service Net

- Tuesdays at 8:30 PM (2030 hrs), on K3PSP Repeater

### 10 Meter Net

- Tuesdays at 9:30 PM (2130 hrs), on 28.340 MHz
- Bud, N3TIR Net Control

### YL Net

- Wednesdays at 7:30 PM (1930 hrs), on K3PSP Repeater
- Karen, K3PUP Net Control

### Elmer Net

- Wednesdays at 8 PM (2000 hrs), on K3PSP Repeater
- Bud N3TIR, Net Control

### Club Elmers

**DX Contest** - Bill Sheehan, KB3LIX; [kb3lix@comcast.net](mailto:kb3lix@comcast.net)  
**QSL & DX** - Bill Steffey, NY9H; [ny9h@arrl.net](mailto:ny9h@arrl.net)  
**ARES & RACES** - Bob Ketzell, KB3IN; [kb3in@yahoo.com](mailto:kb3in@yahoo.com)  
**CW** - Loren McCullough, WA3WZR; [lorenmcc@verizon.net](mailto:lorenmcc@verizon.net)  
**VHF** - Craig Yoho, KB3RHR; [craigyoho@consolenergy.com](mailto:craigyoho@consolenergy.com)  
**Repeaters** - Dennis Presky, K3PSP; [dpresky@mra1.com](mailto:dpresky@mra1.com)  
**Websites** - Joe Caldwell, N3XE; [n3xe.radio@gmail.com](mailto:n3xe.radio@gmail.com)  
**Elmer Net** - Bud Plants, N3TIR; [n3tir@arrl.net](mailto:n3tir@arrl.net)







## WACOM General Meeting Minutes

4 January 2018 7:30 PM



- Meeting was called to order at 7:30 PM by Joe—N3XE
- The minutes from the November 2017 meeting were read — accepted
- The Treasure's report was read and accepted
- Radio Room Report: Light motion sensors will soon be installed.
- Repeater Report: Nothing Significant to Report (K3PSP)
- From the WACOM President: Joe—N3XE
  - Stated that there is a new computer virus that target's hardware
  - There are many new 'builder kit' items available (antenna analyzer, SDR Radio, Tuners, etc.)
  - The Christmas Party went well
  - The technical license class is starting on 28 February 2018
  - There is an open book VE class if anyone is interested
- The November Hamfest planning is still going on—N3TIR
- The January 2018 meeting was adjourned at 8PM

*Next Regular WACOM Meeting - Thursday, 1 February 2018 at 7:30 PM!*



## WACOM Board Meeting Minutes

25 January 2018 , 7:00 PM



### Board Meeting Minutes – 1/25/2018

- Called to order at 7PM by KC3AJM
- Board Members & executives present: KC3AJM Bob, N3TIR Bud, Rob KC3ZUS, N3XE Joe, KB3TFN Patrick, Kay KC3HBO
- Other attendees: John KC3HBN, KC3EDQ Brad, N3YJJ Norma, KB3IN Bob, Jim KC3HW, Dave N3IDH, Bill NY9H
- Previous meeting Minutes accepted : as imagined Motion by Patrick , 2nd Norma
- Treasurers report by Kay KC3HBO \$13,774.13 savings acct, 508.80 checking ( subject to correction) motion to accept, Jim KC3HW seconded by Rob ZUS
- Old biz:
  - Rob authorized by Board of Union Township to assign use of the township facilities IE: Nike site, pavilions for events such as Field Day,
  - Winter Field Day this coming Saturday, no official club function set.
  - Tech by Bob KB3IN 4-6 now signed up.  
Info by Bill that flyers distributed to Educational facilities Including W & J and Trinity HS.  
Also flyers distributed to technicians at both Verizon and Comcast.
- 2018 HAMFEST...due to Fairgrounds booking another organization into our Venue for 2018 WACOM is still without a viable solution to accommodate the hamfest.
- First Sat & Sunday in November cannot be changed due to many vendors previous calendar commitments.
- Isoplex/Printerscape will be contacted by Bill NY9H to check accommodations and availability, keeping in mind the requirement for tables ( approx 170-210)
- Motion sensors to be installed in the radio room on Saturday by Dave N3IDH.
- Bud will have update for probable inclusion in an event by ARC. Details to follow. Potential involvement of multiple public sites used as shelters.

MEMBERSHIP DUES ARE due now. OUR MEMBERSHIP DUES ARE APPROXIMATELY WHAT OUR ANNUAL OPERATING COSTS ARE!, LESS THE INCOME AND EXPENSES OF THE HAMFEST

# **2018 WACOM Upcoming Events Calendar**

## **Meetings, Contests & Other Significant Club Events (Subject to Change)**

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Thu, 1 Feb 2018, WACOM Meeting at 7:30PM, Washington County Building

13 Jan 18—WASH 2-meter SIMPLEX Contest, <http://www.n3sh.org>

10 Feb 18—Breezeshooters Groundwave CW, <http://www.breezeshooters.net>

17-18 Feb 18—ARRL DX Contest (CW), <http://www.arrl.org>

25 Feb 18—**WASHFEST 2018**, Home Econ Bldg, 3735 Buffalo Dr., South Park, PA

Thu, 1 Mar 2018, WACOM Meeting at 7:30PM, Washington County Building

3-4 Mar 18—ARRL DX Contest (SSB), <http://www.arrl.org>

24-25 Mar 18—CQ WPX Contest SSB, <http://cqwp.com>

Thu, 5 Apr 2018, WACOM Meeting at 7:30PM, Washington County Building

18-20 May 18—**DAYTON ARA HAMVENTION®**, Green County Fairground, Xenia, OH

# WACOM HAM DX CORNER—FEB 2018

COURTESY: <http://www.ng3k.com/Misc/adxo.html>

Andaman & Nicobar	<a href="#">YU4G</a>	2018 Feb23	2018 Mar05	LotW	<a href="#">DXW.Net</a> 20180223	By G4IRN fm Lower Andaman I (IOTA AS-001, NK61ho); mainly 40-17m; mainly CW; vertical and wires; QSL also OK via G4IRN and Club Log
Ascension I	ZD8RA	2018 Feb20	2018 Feb20	WW6RG	TDDX 20180214	By WW6RG; 0830-1100z and 1730-1930z
Bonaire	PJ4	2018 Feb10	2018 Feb24	LotW	NE9U 20180108	By NE9U as PJ4/NE9U; QSL also OK via NE9U (direct w/ SASE or Buro)
Cambodia	XU7YTT	2018 Feb11	2018 Feb14	IW7EGQ	TDDX 20180212	IK7YTT fm Koh Rong; mainly 40m
Equatorial Guinea	<a href="#">3C3W</a>	2018 Feb28	2018 Mar09	Club Log	TDDX 20180223	By YL2GM YL1ZF YL2KL; 160-10m; CW SSB RTTY; see Web page for full QSL details
Fiji	3D2GE	2018 Feb04	2018 Feb09	OE3GEA	TDDX 20180201	By OE3GEA fm Viti Levu I (IOTA OC-016); 30-10m, perhaps 40m and 6m; CW; 100w; Outbacker; QSL OK via OE
French Polynesia	FO	2018 Feb25	2018 Mar13	OE3GEA	TDDX 20180201	By OE3GEA as FO/OE3GEA; 30-10m, perhaps 40m and 6m; CW; 100w; Outbacker; QSL OK via OE Buro or direct
Gambia	<a href="#">C5DX</a>	2018 Feb09	2018 Feb16	LotW	G4DJX 20171221	By G4DJX M6LPJ M6POG M6MXD M6SQQ; HF; CW SSB; 400w; multi-band dipole; QSL also OK via G4DJX
Georgia	4L	2018 Feb08	2018 Feb12	LotW	TA1HZ 20180201	By TA7AOF as 4L/TA7AOF and TA7AZC as 4L/TA7AZC fm Batumi; 100w; vertical; QRV for CQ WPX RTTY
Isle of Man	MT0IXD	2018 Feb09	2018 Feb12	M0OXO	GM0OBX 20180125	By GM0OBX MM0OKG MM0VPY fm Scarlett Point; CW SSB; QRV for CQ WPX RTTY Contest
Kosovo	Z68M	2018 Feb22	2018 Mar06	Club Log	<a href="#">425DXN</a> 20180223	By Z32ZM; 160-10m; CW SSB RTTY FT8 JT65
Mariana Is	KH0	2018 Feb20	2018 Feb25	Home Call	<a href="#">DXW.Net</a> 20180209	AA4NC as KH0/AA4NC and AA4VK as KH0/AA4VK fm Saipan I; 160-10m; CW SSB RTTY; holiday style operation
Nepal	9N7CR	2018 Feb15	2018 Mar01	KE5GD	<a href="#">OPDX</a> 20180219	By KE5GD; 20m; SSB; 100w; around 1200-1400z
Rwanda	9XSDA	2018 Feb13	2018 Feb18	M0UPL	<a href="#">425DXN</a> 20180209	By M0UPL fm Kigali; 40 20m; mainly SSB
Temotu	H40YM	2018 Feb27	2018 Mar13	EA5GL	EA5GL 20180125	By VA7YM fm Lata, Nendo I (IOTA OC-100)

## FT8 Burnout? Cure Available Now

by Thomas David Hood NW7US, (Courtesy: E-HAM)

For those of you who have dived into the crowded but fun pool of FT8 operation--or one of the other Joe Taylor modes (such as *JT65*, *FT8*, or *JT9*)--and now are excited about digital modes, here's something you might enjoy exploring, as well. Unlike the JT/FT digital modes--modes that do an incredible job under marginal propagation conditions--there are other modes that offer *keyboard-to-keyboard conversational* QSO opportunities that can overcome rough shortwave radio propagation conditions.

While making quick work of getting DX stations into your logbook by exchanging callsigns, a signal report, and a grid square, the JT/FT modes (**JT** stands for Joe Taylor, the fellow that pioneered these modes) are limited. They cannot handle any additional communications beyond a callsign, a signal report, a grid-square, and a very limited set of acknowledgements and sign-off messages.

When you desire to get to know people from other areas of the world, or if you need to establish networks around the world for passing information--perhaps an emergency net in support of the Red Cross--or if you are motivated by any other of a myriad reasons to establish a keyboard-to-keyboard conversation by way of the ionosphere, modes like *Olivia* are great candidates for your consideration. (Later in this article, typical and suggested frequencies and settings are listed for Olivia operation on HF)

### For Your Consideration: Olivia

*Olivia* is an *MFSK*--Multi-Frequency Shift Keying--radioteletype protocol designed to work in difficult conditions on shortwave bands. The Olivia digital mode is commonly used by amateur radio operators to reliably transmit ASCII characters over noisy channels using the high frequency (i.e., 3 MHz to 30 MHz; high-frequency, or HF; shortwave) spectrum. The *typical Olivia signal is decoded when the amplitude of the noise is over three times that of the digital signal!*

In 2005, **SP9VRC, Pawel Jalocha**, released to the world Olivia, a mode that he developed starting in 2003 to overcome difficult radio signal propagation conditions on the shortwave bands. By difficult, we are talking significant phase distortions, low signal-to-noise ratios (SNR), and multipath propagation effects. *The Olivia-modulated radio signals are decoded even when it is ten to fourteen dB below the noise floor.* That means that Olivia is decoded when the amplitude

of the noise is slightly over three times that of the digital signal!

When the *propagation of digital signals is sub-optimal*, such as when the signal experiences *low signal-to-noise ratio*, and/or the path between the transmitting station and receiver experiences *multipath propagation*, many digital modes suffer the loss of data. Olivia, on the other hand, overcomes these problems.

Olivia decodes well under other conditions that are a complex mix of atmospheric noise, signal fading (QSB), interference (QRM), noise (QRN), and polar flutter caused by a radio signal traversing a polar path. Olivia is even capable when the signal is affected by auroral conditions (including the Sporadic-E Auroral Mode, where signals are refracted off of the highly-energized E-region in which the Aurora is active).

Currently, *the only other digital modes that match or exceed Olivia in their sensitivity are MT63, and some of the modes designed by Joe Taylor as implemented in the WSJT programs, including FT8, JT65A, and JT65-HF--each of which are certainly limited in usage and definitely not able to provide true conversation capabilities.* **Olivia is useful for emergency communications, unlike JT65A or the newly popular FT8.**

### Olivia in Action

The following link is to a video that is a demonstration of a two-way transmission (a QSO) using the Olivia digital mode on shortwave. I am in QSO (conversation) with KA5TPJ. As you can see on the waterfall (the deeper blue area toward the bottom of the software's window), there are two other Olivia QSOs just below my QSOs frequency. Just above my QSO frequency is FT8 activity. Below the two other Olivia QSOs are PSK31 QSOs. The band is active!. One thing stands out: Olivia is not dead!

The **standard Olivia formats** (shown as the number of tones/bandwidth in Hz) are **8/250, 8/500, 16/500, 8/1000, 16/1000**, and **32/1000**. Some even use 16/2000 for series emergency communication. *The most commonly-used formats are 16/500, 8/500, and 8/250.* However, the 32/1000 and 16/1000 configurations are popular in some areas of the world (Europe) and on certain bands.



## FT8 Burnout? Cure Available Now (Continued)

These different choices in bandwidth and tone settings can cause some confusion and problems--so many formats and so many other digital modes can make it difficult to figure out which mode you are seeing and hearing. After getting used to the sound and look of Olivia in the waterfall, though, it becomes easier to identify the format when you encounter it. **To aid in your detection of what mode is being used, there is a feature of many digital-mode software implementation suites: the RSID.** The next video, below, is a demonstration on how to set the **Reed-Solomon Identification (RSID)** feature in *Ham Radio Deluxe's Digital Master 780* module (HRD DM780).

**I encourage ALL operators, using any digital mode such as Olivia, to TURN ON the RSID feature** as shown in this example. In Fldigi, the RSID is the TXID and RXID; make sure to Check (turn on) each, the TXID and RXID.

Please, make sure you are using the RSID (Reed Solomon Identification - RSID or TXID, RXID) option in your software. RSID transmits a short burst at the start of your transmission which identifies the mode you are using. When it does that, those amateur radio operators also using RSID while listening will be alerted by their software that you are transmitting in the specific mode (Olivia, hopefully), the settings (like 8/250), and where on the waterfall your transmission is located. This might be a popup window and/or text on the receive text panel. When the operator clicks on that, the software moves the waterfall cursor right on top of the signal and changes the mode in the software. **This will help you make more contacts!**

+ **NOTE 1:** The *MixW* software doesn't have RSID features. Request it!

+ **NOTE 2:** A problem exists in the current paid version of HRD's DM780: the DM780 RSID popup box that lists the frequency, mode, and configuration with a link to click, does not work. HRD support is aware of the problem. You can still use the textual version that shows up in the DECODED TEXT window, a feature of RSID that you can select in the HRD DM780 program settings. This setting ensures that the detected RSID details appear in the receive text area. If you click the RSID link that comes across the text area, DM780 will tune to the reported signal, and change to the correct settings.

### Voluntary Olivia Channelization

Since Olivia signals can be decoded even when received signals are extremely weak, (signal to noise ratio of -14db), signals strong enough to be decoded are sometimes below the noise floor and therefore impossible to search for manually. *As a result, amateur radio operators have voluntarily decided upon channelization for this mode.* This channelization allows even imperceptibly weak signals to be properly tuned for reception and decoding. By common convention amateur stations initiate contacts utilizing 8/250, 16/500, or 32/1000 configuration of the Olivia mode. After negotiating the initial exchange, sometimes one of the operators will suggest switching to other configurations to continue the conversation at more reliable settings, or faster when conditions allow. The following table lists the common center frequencies used in the amateur radio bands.

### Olivia (CENTER) Frequencies (kHz) for Calling, Initiating QSOs

It is often best to get on standard calling frequencies with this mode because you can miss a lot of weak signals if you don't. However, with Olivia activity on the rise AND all the other modes vying for space, a good deal of the time you can operate wherever you can find a clear spot--as close as you can to a standard calling frequency.

**Note:** some websites publish frequencies in this band, that are **right on top of weak-signal JT65, JT9, and FT8 segments. DO NOT QRM weak-signal QSOs!**

We (active Olivia community members) suggest **8/250** as the *starting settings* when *calling CQ* on the USB frequencies designated as 'Calling Frequencies.' A *Calling Frequency* is a center frequency on which you initially call, 'CQ CQ CQ...' and then, with the agreement of the answering operator, move to a new nearby frequency, changing the number of tones and bandwidth at your discretion. Even though 8/250 is slow, the CQ call is short. But, it is narrow, to allow room for other QSOs nearby.

### Current CENTER Frequencies With 8/250:

**1.8269 MHz, 3.5729 MHz, 7.0729 MHz, 10.1429 MHz, 14.0729 MHz, 18.1029 MHz, 21.0729 MHz, 24.9229 MHz, 8.1229 MHz, and so on.**

See the pattern? By the way: The current suggested CENTER frequency with 16/1000 or 32/1000 on 20 meters is 14.1059.

## FT8 Burnout? Cure Available Now (Continued)

**Q: What's a 'CENTER' Frequency? Is That Where I Set My Radio's Dial?**

For those new to waterfalls: the CENTER frequency is the CENTER of the cursor shown by common software. The cursor is what you use to set the transceiver's frequency on the waterfall. If your software's waterfall shows the frequency, then you simply place the cursor so that its center is right on the center frequency listed, above. If your software is set to show OFFSET, then you might, for example, set your radio's dial frequency to 14.0714, and place the center of your waterfall cursor to 1500 (1500 Hz). That would translate to the 14.0729 CENTER frequency.

Another operating tip: Do not switch to other modes or settings without calling CQ for at least a five-minute window. It is horrid when people call CQ and change settings, modes, bandwidths, tones, every time they call CQ! If you want someone to answer your CQ, you need to stick with one setting for long enough for others to find your signal and get set up to answer.

**REMEMBER: ALWAYS TURN ON RSID! (TXID and RXID in FLdigi)**

**Common Windows of Olivia Operation on HF**  
(this is still a work-in-progress; your input is welcome)

+ 160m: 1835 kHz - 1837.9 kHz

+ 80m: 3571 kHz - 3573.9 kHz

+ 40m: 7071 kHz - 7073.9 kHz (500, 250, or 125 Hz configurations mostly)

+ 30m: 10141 kHz - 10144 kHz (500, 250, or 125 Hz configurations mostly)

+ 20m: 14071 kHz - 14073.9 kHz (500, 250, or 125 Hz configurations mostly)

+ 20m: 14104.5 kHz - 14107.9 kHz (1000 or 2000 Hz wide configurations mostly)

+ 17m: 18102.65 kHz

+ 15m,

12m,

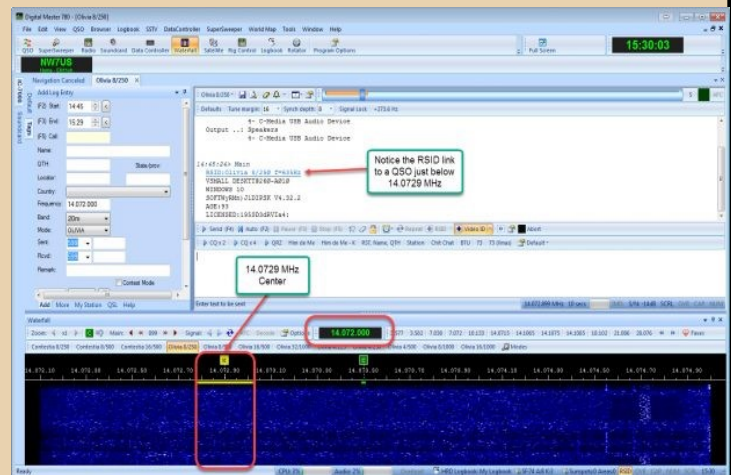
10m,

**6m: Usually 500 Hz above PSK activity**

– 21071.5 kHz, 24921.5 kHz, 28121.5 kHz

+ 6m: 50.291 MHz (?? still in debate)

*Note:* Make sure that your signal does not cross into other sub-bands (watch the highest edge of the transmit-



ted signal) where weak-signal modes are active. For instance, do not have any part of your signal at 14074 kHz or higher, as this is the sub-band for FT8, which is just below JT65A and JT9.

Also, do not quickly switch to other modes without calling CQ for at least a five-minute window. It is really horrid when people call CQ and change settings, modes, bandwidths, tones, every time they call CQ during the same session!

**Join the OLIVIA COMMUNITY Online!**

There are several key resources that we in the Olivia community are developing, to make it easier for you to enter into the great world of Olivia. One is an *active support e-mail group* to which you can subscribe at <https://groups.io/g/Olivia> -- a group containing topical areas of interest which can be filtered so that you are not flooded by email containing topics of which you are not interested. It has a files section, as well, in which we will add helpful how-to instructions and so on.

Another resource is our *Facebook group*, at <https://www.Facebook.com/groups/olivia.hf> -- also with a files area containing help files. This group is a great resource for getting help from like-minded Olivia digital mode enthusiasts.

# WACOM DX Feature of the Month— Kosovo

## Z68M (22 Feb—6 Mar 2018)



**Kosovo** is a disputed territory and partially recognised state in Southeastern Europe that declared independence from Serbia in February 2008 as the **Republic of Kosovo** [SOURCE: WIKIPEDIA]

Kosovo is landlocked in the central Balkan Peninsula. With its strategic position in the Balkans, it serves as an important link in the connection between central and southern Europe, the Adriatic Sea, and Black Sea. Its capital and largest city is Pristina, and other major urban areas include Prizren, Peć and Ferizaj. It is bordered by Albania to the southwest, the Republic of Macedonia to the southeast, Montenegro to the west and the uncontested territory of Serbia to the north and east. While Serbia recognizes administration of the territory by Kosovo's elected government, it continues to claim it as its own Autonomous Province of Kosovo and Metohija.

Kosovo's history dates back to the Paleolithic age, represented by the Vinča and Starčevo cultures. During the Classical period, it was inhabited by the Illyrian-Dardanian and Celtic people. In 168 BC, the area was annexed by the Romans.<sup>[16]</sup> In the Middle Ages, it was conquered by the Byzantine, Bulgarian and Serbian Empires. The Battle of Kosovo of 1389 is considered to be one of the defining moments in Serbian medieval history. The region was the core of the Serbian medieval state, which has also been the seat of the Serbian Orthodox Church from the 14th century, when its status was upgraded into a patriarchate.

Kosovo was part of the Ottoman Empire from the 15th to the early 20th century. In the late 19th century, it became the center of the Albanian national awakening. Following their defeat in the Balkan Wars, the Ottomans ceded Kosovo to Serbia and Montenegro. Both countries joined Yugoslavia after World War I, and following a period of Yugoslav unitarianism in the Kingdom, the post-World War II Yugoslav constitution established the Autonomous Province of Kosovo and Metohija within the Yugoslav constituent Republic of Serbia. Tensions between Kosovo's Albanian and Serb communities simmered through the 20th century and occasionally erupted into major violence, culminating in the Kosovo War of 1998 and 1999, which resulted in withdrawal of Serbian armed forces and establishment of the United Nations Interim Administration Mission in Kosovo. On 17 February 2008, Kosovo unilaterally declared its independence from Serbia. It has since gained diplomatic recognition as a sovereign state by 113 UN member states. Serbia refuses to recognize Kosovo as a state, although with the Brussels Agreement

of 2013, it has accepted the legitimacy of its institutions. Kosovo has a lower-middle-income economy and has experienced solid economic growth over the last decade by international financial institutions, and has experienced growth every year since the onset of the global financial crisis in 2008.

The entire region is commonly referred to in English simply as Kosovo and in Albanian Kosova. In Serbia, a formal distinction is made between the eastern and western areas; the term *Kosovo* (Косово) is used for the eastern part centered on the historical Kosovo Field, while the western part is called *Metohija* (Метохија) (known as *Dukagjini* in Albanian). Albanians also refer to Kosovo as Dardania, the name of a Roman province formed in 165 BC, which covered the territory of modern Kosovo. The name is derived from ancient tribe of Dardani, ultimately from proto-Albanian word *dardha/dardā* which means "pear". The former Kosovo President Ibrahim Rugova had been an enthusiastic backer of a "Dardanian" identity and the Kosovan flag and presidential seal refer to this national identity. However, the name "Kosova" remains more widely used among the Albanian population.

The current borders of Kosovo were drawn while part of SFR Yugoslavia in 1945, when the Autonomous Region of Kosovo and Metohija (1945–1963) was created as an administrative division of the new People's Republic of Serbia. In 1963, it was raised from the level of an autonomous region to the level of an autonomous province as the Autonomous Province of Kosovo and Metohija (1963–1968). In 1968, the dual name "Kosovo and Metohija" was reduced to a simple "Kosovo" in the name of the Socialist Autonomous Province of Kosovo. In 1990, the province was renamed the Autonomous Province of Kosovo and Metohija.

The official conventional long name of the state is *Republic of Kosovo*, as defined by the Constitution of Kosovo, and is used to represent Kosovo internationally. Additionally, as a result of an arrangement agreed between Pristina and Belgrade in talks mediated by the European Union, Kosovo has participated in some international forums and organizations under the title "Kosovo\*" with a footnote stating "This designation is without prejudice to positions on status, and is in line with UNSC 1244 and the ICJ Opinion on the Kosovo declaration of independence". This arrangement, which has been dubbed the "asterisk agreement", was agreed in an 11-point arrangement agreed on 24 February 2012.



## WACOM DX Feature of the Month— Kosovo

### Z68M (22 Feb—6 Mar 2018) Continued

Inter-ethnic tensions continued to worsen in Kosovo throughout the 1980s. In 1989, Serbian President Slobodan Milošević, employed a mix of intimidation and political maneuvering, drastically reduced Kosovo's special autonomous status within Serbia and started cultural oppression of the ethnic Albanian population. Kosovo Albanians responded with a non-violent separatist movement, employing widespread civil disobedience and creation of parallel structures in education, medical care, and taxation, with the goal of achieving the independence of Kosovo.

By 1998, international pressure compelled Yugoslavia to sign a ceasefire and partially withdraw its security forces. Events were to be monitored by Organization for Security and Co-operation in Europe (OSCE) observers according to an agreement negotiated by Richard Holbrooke. The ceasefire did not hold and fighting resumed in December 1998, culminating in the Račak massacre, which attracted further international attention to the conflict. Within weeks, a multilateral international conference was convened and by March had prepared a draft agreement known as the Rambouillet Accords, calling for the restoration of Kosovo's autonomy and the deployment of NATO peacekeeping forces. The Yugoslav delegation found the terms unacceptable and refused to sign the draft. Between 24 March and 10 June 1999, NATO intervened by bombing Yugoslavia aimed to force Milošević to withdraw his forces from Kosovo, though NATO could not appeal to any particular motion of the Security Council of the United Nations to help legitimize its intervention.

During the conflict, roughly a million ethnic Albanians fled or were forcefully driven from Kosovo. In 1999 more than 11,000 deaths were reported to the office of the International Criminal Tribunal for the former Yugoslavia prosecutor Carla Del Ponte. As of 2010, some 3,000 people were still missing, of which 2,500 are Albanian, 400 Serbs and 100 Roma. By June, Milošević agreed to a foreign military presence in Kosovo and the withdrawal of his troops. After the Yugoslav Army withdrew, over half of Kosovo's Serbs and other non-Albanians fled or were expelled and many of the remaining civilians were subjected to abuse. During the Kosovo War, over 90,000 Serbian and other non-Albanian refugees fled the war-torn province. In the days after the Yugoslav Army withdrew, over 200,000 (over half) Serb and other non-Albanians civilians were expelled from Kosovo and many of the remaining civilians were victims of abuse. After Kosovo and other Yugoslav Wars, Serbia became home to the highest number of refugees and IDPs (including Kosovo Serbs) in Europe. Kosovo declared independence from Serbia on 17 February 2008. As of 17 February 2018, 113 UN states

recognize its independence, including all of its immediate neighbors, with the exception of Serbia. Since declaring independence, it has become a member of the international institutions such as the International Monetary Fund and World Bank, though not of the United Nations.

#### Geography

A landlocked country, Kosovo occupies the center of the Balkan Peninsula in Southeastern Europe. The country has a total area of 4,212 square miles and is the 10th smallest country in Europe. Most of the country's borders are dominated by mountainous or high terrain. The most noticeable topographical features are the Bjeshkët e Nemuna and the Šar Mountains. The Albanian Alps are a geological continuation of the Dinaric Alps. The mountains run laterally through the west along the border with Albania and Montenegro. The southeast is predominantly dominated by the Šar Mountains, which forms the border with Macedonia. Besides, the mountain ranges, Kosovos most territory is comprised mostly of two major plains including the Kosovo Plain in the east and the Metohija Plain in the west.

#### Climate

Most of Kosovo experiences a continental climate with Mediterranean and alpine influences.<sup>[160][161]</sup> The climate is strongly influenced by its proximity to the Adriatic Sea in the west, the Aegean Sea in the south but also the European continental landmass in the north. The coldest areas of the country are the Mountains in the west and southeast, where alpine climate is found. The warmest areas of the country are especially at the extreme southern areas close to the border with Albania characterized by the Mediterranean climate. Mean monthly temperature ranges between 32 °F (in January) and 104 °F (in July). Mean annual precipitation ranges from 600 to 1,300 mm (24 to 51 in) per year, and is well distributed year-round.

#### Politics

Kosovo is a multi-party parliamentary representative democratic republic. The country is governed by legislative, executive and judicial institutions which derive from the Constitution, although until the Brussels Agreement, North Kosovo was in practice largely controlled by institutions of Serbia or parallel institutions funded by Serbia. The legislative is vested in both the Parliament and the ministers within their competencies. The Government exercises the executive power and is composed of the Prime Minister as the head of government, the Deputy Prime Ministers and the Ministers of the various ministries. The judiciary is composed of the Supreme Court and subordinate courts, a Constitutional Court, and independent prosecutorial institutions.



# WACOM DX Feature of the Month— Kosovo

## Z68M (22 Feb—6 Mar 2018)



### Demographics

According to the Statistical Office of Kosovo, the country's population is estimated to be between 1.9 and 2.2 million with the following ethnic composition, 92% Albanian people, 4% Serb people, 2% Bosniak people and Gorani people, 1% Turkish people and Romani people. As of the CIA estimates the following ratio: 88% Albanians, 8% Kosovo Serbs and 4% other ethnic groups. According to CIA The World Factbook estimated data from July 2009, Kosovo's population stands at 1,804,838 persons. It stated that ethnic composition was 88% Albanians, 7% Serbs and 5% of other ethnic groups including Bosniaks, Gorani, Roma, Turks, Ashkalis, Egyptians and Janjevci – Croats.

Albanians, steadily increasing in number, have constituted a majority in Kosovo since the 19th century, the earlier ethnic composition being disputed. Kosovo's political boundaries do not quite coincide with the ethnic boundary by which Albanians compose an absolute majority in every municipality; for example, Serbs form a local majority in North Kosovo and two other municipalities, while there are large areas with an Albanian majority outside of Kosovo, namely in the neighboring regions of former Yugoslavia: the north-west of Macedonia, and in the Preševo Valley in Southern Serbia.

At 1.3% per year as of 2008 data, ethnic Albanians in Kosovo have the fastest rate of growth in population in Europe.<sup>[185]</sup> Over an 82-year period (1921–2003) the population of Kosovo grew to 460% of its original size. Whereas Albanians constituted 60% of Kosovo's 500,000 person population in 1931, by 1991 they reached 81% of Kosovo's 2 million person population. In the second half of the 20th century, Kosovo Albanians had three times higher birth rates than Serbs.<sup>[187]</sup> In addition, most of Kosovo's pre-1999 Serb population relocated to Serbia proper following the ethnic cleansing campaign in 1999.

### Language

According to the Constitution, Albanian and Serbian are the official languages of Kosovo. Almost 95% of the population speaks Albanian as their native language, followed by South Slavic languages and Turkish. Due to North Kosovo's boycott of the census, Bosnian resulted in being the

dominant language in the country, although equal status is given to Serbian and special status is given to other minority languages.

### Religion

Kosovo is a secular state with no official state religion. The Constitution provides for freedom of religion and conscience. According to the 2011 Census, 95.6% of the population of Kosovo are Muslims. These figures do not represent individual sects operating in the country such as the Sufism or Bektashism, which are sometimes classified generally under the category of Islam. 3.69% of the population are Catholic and an equal number or up to 5% Orthodox (the largely Orthodox Serbian minority boycotted the census). The Catholic Albanian communities are mostly concentrated in the cities of Gjakova, Prizren, Klina, and a few villages near Peć and Vitina. The Serb minority is largely Serbian Orthodox.



Christianity has a long-standing tradition in the country, dating back to the Eastern Roman period. During the Middle Ages, the entire Balkan peninsula had been Christianized by both the Romans and Byzantines. From 1389 until 1912, Kosovo was officially governed by the Ottoman Empire and a high level of Islamization occurred. After the World War II, the country was ruled by secular socialist authorities in the Socialist Federal Republic of Yugoslavia. During that period, the population of Kosovo became increasingly secularized. Today, over 90% of its population are from Muslim backgrounds, most of whom are ethnic Albanians<sup>[192]</sup> but also including Slavs (who mostly identify themselves as Gorani or Bosniaks) and Turks.

### Amateur Radio



## *3Y0Z Bouvet Island DXpedition Aborted over Safety Concerns*

3 Feb 18

The 3Y0Z Bouvet Island DXpedition released an updated statement on February 5.] “Our captain has decided that it is in the best interest of safety and expediency to proceed directly to Capetown, South Africa, rather than Punta Arenas, Chile. We are now heading north to avoid the possibility of encountering ice. Currently, there is no ice in sight or on radar. In due time, we will head easterly toward Capetown. Our entire team is safe. Most are resting in their bunks and in good spirits. We will keep the amateur radio community and our families informed, as we continue our journey.”

In a huge disappointment for the DX community and the members of the 3Y0Z Bouvet Island team, the DXpedition's leaders announced at 2000 UTC today (February 3) that a decision had been made to abort the DXpedition and head back to Chile.

“During the last 72 hours, we continued to experience the high winds, low clouds, fog and rough seas that have prevented helicopter operations since our arrival at Bouvet,” said an announcement on the 3Y0Z Bouvet Island website. “No improvement was predicted in the weather forecast for the next 4 days. Then, last night, an issue developed in one of the ship’s engines. This morning, the captain of the vessel declared it unsafe to continue with our project and aborted the DXpedition. We are now on our long voyage back to Punta Arenas. As you might imagine, the team is deeply disappointed, but safe. There is already talk about rescheduling the DXpedition.”

Bouvet Island currently is the third most-wanted DXCC entity, behind Kosovo and North Korea. The 3Y0Z DXpedition, comprised of top operators with considerable DXpedition experience, has been in the planning stages for 2 years and had attracted contributions from clubs and individuals around the world.

A dependency of Norway, Bouvet is a sub –Antarctic island in the South Atlantic. The last Bouvet activation was 3Y0E, during a scientific expedition over the winter of 2007-2008.

## *Foxes and Hounds — FT8 DXpedition Mode is in the Works for WSJT-X*

5 Feb 18

Speaking on behalf of the *WSJT-X* Development Team, Joe Taylor, K1JT, has issued a progress report on the team’s efforts to develop FT8 DXpedition Mode. The new digital mode will include new and innovative features, which are detailed in a draft *FT8 DXpedition Mode User Guide*, released on February 2. Taylor said the basic goal of FT8 DXpedition Mode is to enable DXpeditions to make FT8 QSOs at the highest possible rates, and the *WSJT-X* Development Team has been working with members of the Baker Island KH1/KH7Z DXpedition team, ahead of its mid-summer operation, to work out the wrinkles.

“Like most major DXpeditions, this one will almost certainly make a majority of its QSOs using SSB and CW,” Taylor said. “However, the group is well aware of the rapid rise of FT8 popularity, and they plan to use FT8 as well. Making FT8 QSOs with KH1/KH7Z will require the DXpedition and everyone trying to work them to use a new, yet-to-be-released version of *WSJT-X*. We have tested the new program features on the air several times, and found them to work well.”

In FT8 DXpedition Mode, a DXpedition stations is the Fox, and calling stations are Hounds. The new mode permits contacts to be completed with as little as one Fox transmission per contact. The Fox also can transmit up to five signals simultaneously, upping the potential contact rate to 600/hour. “With expected signal levels and likely levels of QRM, sustained rates of several hundred QSOs/hour are expected to be possible,” the *User Guide* asserts. The *User Guide* points out that FT8 DXpedition Mode is suitable for use *only* by legitimate DXpedition stations and by those attempting to work them and should not be used for day-to-day FT8 operation.

“Another test run [of the new mode] will probably be scheduled in a month or so,” Taylor continued, adding that others subsequently will be invited to upgrade to a “release candidate” called *WSJT-X* v1.9.0-rc1, “and to join in trying to work one or more specific ‘pseudo-DXpedition’ stations at a certain time and frequency.” *WSJT-X* release candidate versions, identified by an -rcx suffix, are offered temporarily for beta-testing but are not suitable for long-term general use.

Taylor said the Development Team’s approach to FT8 DXpedition Mode will continue the process of “shaking bugs out of the program” and generally improve its usability for DXpedition operators and DXers alike. — *Thanks to Joe Taylor, K1JT*





## ARRL Announces Mobile DXCC Operating Award

02/09/2018

ARRL this week announced a **Mobile DXCC Operating Award**, available to radio amateurs who have contacted at least 100 DXCC entities from a working vehicle, with antennas and power source capable of operating while in motion. ARRL Radiosport Manager Norm Fusaro, W3IZ, advised those pursuing the award to put safety first.

“Distracted driving is a serious concern, so we hope all mobile operators exercise care when operating from a moving vehicle,” he said.

Full, official details are on the **Mobile DXCC Operating Award** page.

The Mobile DXCC is a one-time award and is non-endorsable. Contacts made any time in the past do count toward the award. QSLs are required but you do not need to submit them.

Mobile stations may use any legal power for the entity from which they are operating. This award specifically *excludes* contacts made by aeronautical or maritime mobile stations.

You do not have to be an ARRL member to qualify for this award.

Because this award is similar to the **QRP DXCC Operating Award**, ARRL has redesigned the QRP DXCC Certificate so that the two awards complement one another. Operators who hold the QRP DXCC award may apply for the new-style certificate with the original date of issue printed on the certificate, but you do not have to re-submit QSL cards or a log. All certificates are \$16

## “Faces of the Florizel” Special Event will Commemorate Marine Tragedy

02/20/2018

The Society of Newfoundland Radio Amateurs (SONRA) mark the 100th anniversary of the SS *Florizel*

tragedy with a special event on February 23-24.



On February 23, 1918, the *Florizel* left St. John's, Newfoundland on what was supposed to be a routine trip to Halifax, Nova Scotia, and then to New York City. Blizzard conditions and miscommunication between the bridge and the engine room caused the vessel to go aground on the rocks near Cappahayden, Newfoundland.

Of the 137 on board, only 44 survived. In the early hours of February 24, the *Florizel's* SOS was received at the HM Wireless Station, the current site of the Admiralty House Communications Museum. Admiralty House is partnering with SONRA for the special event, which will use VO1MZL, to commemorate the vessel's call sign.

Admiralty House Museum's "Faces of the *Florizel*" exhibit will feature memories of family members, oral histories, archival records, and artifacts associated with the marine tragedy. Operation will be on all HF bands.

QSL to Admiralty House Communications Museum, 365 Old Placentia Rd, Mount Pearl, NL A1N0G7, CANADA.



## Z60A Operation Has Moved Kosovo Down the Most-Wanted List a Few Notches

02/14/2018

What a difference a week makes! The ongoing Z60A special operation to celebrate the addition of Kosovo to the DXCC List and Kosovo's 10th anniversary of independence appears to have put a big dent in demand for the new entity, which briefly stood at the top of the heap. According to Club Log's **DXCC Most Wanted** list as of February 14, the Republic of Kosovo now is in the #8 position after rocketing into the #1 slot when it became a DXCC entity on January 21. The #2 and #3 slots are held by Bouvet Island and Crozet Island, respectively, while North Korea is back at #1.

With two stations on the air, Z60A operations are expected to continue through February 19 and will include participation in the **ARRL International DX Contest (CW)** over the February 17 – 18 weekend. Z60A continues to attract huge pileups.

“The departing German/Slovenian team of DJ5IW, DM5TI, DD2ML, and S57AW did a fantastic job while introducing the data modes, RTTY and FT8,” said Martti Laine, OH2BH, a longtime supporter of Amateur Radio in Kosovo. “They made up to 10,000 digital QSOs, with the Z60A total now reaching 70,000.” The Z60A location at the headquarters of Kosovo's IARU Member Society **SHRAK** has been in SSB mode, helmed by local Z6 operators and others; the call sign also was active during

the CQ World-Wide WPX RTTY event this past weekend.

Local manmade noise continues to hamper Z60A operation. “Many are wondering why it isn't possible to eliminate the noise by setting up camp in a quiet open field,” Laine said. “The underlying fact is that Pristina is more than 650 meters above sea level, and this winter has been particularly cold, with –13 °C temperatures experienced during the activation period.”

Considering that Kosovo will remain on the DXCC horizon and that this is the very first activation, Laine added, “not all noise and other challenges are expected to be resolved.” A remote location may be operational within the week, however. Testing indicated “dramatically better” reception than in Pristina.

Laine said the celebratory Z60A operation has served to bring in operators from as many other countries as possible, helping hams in Kosovo to “expand their network of friends.”

Hans Blondeel Timmerman, PB2T, pointed out in the recent edition of the European DX Foundation (**EUDXF**) newsletter that Amateur Radio had been nearly nonexistent for more than 25 years and all radio equipment was confiscated. This has created a current need for affordable used gear.

“Please consider [donating] one of your spare radios that is only catching dust in your garage,” he said. Those wishing to donate to support Amateur Radio in Kosovo should **contact** Wayne Mils, N7NG. —

*Thanks to Martti Laine, OH2BH*





# WASHfest 2018

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Carol Danko KB3GMN at (412) 884-1466 [n3sbf@comcast.net](mailto:n3sbf@comcast.net)

E-mail us directly at [washarc@yahoo.com](mailto:washarc@yahoo.com) Check out our website too! [www.n3sh.org](http://www.n3sh.org)

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# Washington Amateur Communications

## 2018

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In case of emergency, for what bands do you have equipment? \_\_\_\_\_

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What activities would you like to see WACOM sponsor? \_\_\_\_\_

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Please return completed form and dues to:

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