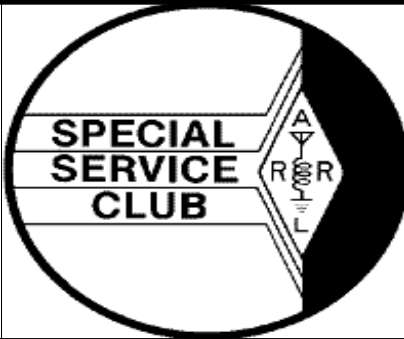


March 2018
Vol. 43, #3

Washington Amateur Communications Inc.



A 501-C3 Tax Exempt Organization



WACOM at the WASH Hamfest Photos

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WACOM

President's Message

March 2018



Joe—N3XE

President's Message, March 2018

There's a lot for WACOM to be excited about as we start to move out of winter. Thanks to the efforts of many we have been able to pull our Hamfest back from the brink of oblivion and are now poised for a bright future at our new venue. Not only new, but much improved. Goodbye fairgrounds, hello Printscape Arena. Did you hear that they will even set up the tables for us?

WACOM also has a fantastic new fund-raising enterprise; a ticket to win an ICOM 7300. Only 250 tickets will be sold, \$10 per ticket, the winner will be determined by the Pick 3 lottery on the Saturday of Field Day (June 23). This is great for the club and great odds to win a very nice radio. Get yours before they are sold out.

Finally, remember that the Technician class started this week, so it's not too late to send anyone interested to join the group.

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

2017 Club Officers

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

2017 Board of Directors

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

Newsletter Editor

Ken Frankenbery, AA3GM; ktfrank3@gmail.com

Webmaster

Joe Caldwell, N3XE; n3xe.radio@gmail.com

VE Liaison

Bob Kinnear, KI4DHB; ki4dhb@yahoo.com

Radio Room Committee

Patrick Degnan Jr., KB3TFN; pdegnan@gmail.com

EMCOMM Training Officer

Brad McCarrell, KC3EDQ; 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
QSL & DX - Bill Steffey, NY9H; ny9h@arrl.net
ARES & RACES - Bob Ketzell, KB3IN; kb3in@yahoo.com
CW - Loren McCullough, WA3WZR; lorenmcc@verizon.net
VHF - Craig Yoho, KB3RHR; craigyoho@consolenergy.com
Repeaters - Dennis Presky, K3PSP; dpresky@mra1.com
Websites - Joe Caldwell, N3XE; n3xe.radio@gmail.com
Elmer Net - Bud Plants, N3TIR; n3tir@arrl.net





WACOM General Meeting Minutes

1 February 2018, 7:30 PM



- Meeting began at 7:30 PM with WACOM president—Joe N3XE
- January meeting minutes were read and accepted
- The Treasurer's report was read and accepted
- N3TIP informed the meeting that there will be a Red Cross drill on 14 April 2018
- N3XE had a show & tell on the new All Band SSB/CW Micro BITX radio
- There will be a tech class starting the 28th of February at 6PM at the Radio Room in Pancake.
- For those interested in becoming a VE, there will be a VE class (sign up with N3XE)
- The WASH Fest will be at South Park starting at 8AM on 25 February 2018—WACOM will have a table there.
- Bud (N3TIR) stated that he and Bill (NY9H) will be going to the ICEOPLEX in Southpointe to see if WACOM can secure a date for the Hamfest there—the Fairgrounds is out this year due to a double-booking
- Bob—KC3AJM motion that N3TIR & NY9H be allowed to acquire the venue at Southpointe for the WACOM Hamfest—second & approved
- KB3ZUS stated that Union Township is also available for events
- December 1st 2018 will be the Christmas Party at the Washington Country Club
- Bud (N3TIR) stated that the Salvation Army in Greentree is looking for technical assistance (see him for info)
- Ed (N3ZNI) motioned for the meeting to adjourn, seconded & approved.
- The meeting was officially over at 8:30 PM

Next Regular WACOM Meeting - Thursday, 1 Mar 18 at 7:30 PM!



WACOM Emergency Board Meeting Minutes

16 March 2018, 7:00 PM



Emergency board meeting – 3/16/18 @ 7 pm (in the Radio Room)

Attendance:

KC3AJM - Bob
NY9H - Bill
K3PSP – Dennis - via phone
KB3TFN - Patrick
KB3ZUS - Rob
KC3EKZ - Randy
N3IDH - Dave

Patrick reviewed Kay's notes regarding the lease of the radio room.

KC3AJM - Bob inquired about who gave permission for WACOM to use the upstairs. NY9H spoke to a “fire department” member that gave permission and a key for upstairs.

KC3AJM - is going to request billing to compare to verify the claimed “high” electric bills.

KC3AJM - is going to set up a meeting with fire department to discuss lease renewal, and electric bills in question.

KC3AJM - If department wants to increase rent, board has approved a max of \$1000.00 per month.

Install a switch, or thermostat in radio room to run boiler from radio room, and not from thermostat in social hall. Randy will install, Dave will get parts.

Adjourn 8:04 pm

Randy Kief
KC3EKZ

2018 WACOM Upcoming Events Calendar

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

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://cqwpix.com>

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

8 Apr 18—2-Rivers ARC Hamfest, <http://www.trarc.net>

Thu, 3 May 2018, WACOM Meeting at 7:30PM, Washington County Building

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

26-27 May 18— CQ WPX Contest –CW, <http://cqwpix.com>

2-3 Jun 18—Breezeshooter's Hamfest, <http://breezeshooters.org>

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

9-11 Jun 18—ARRL June VHF Contest, <http://www.arrl.org>

23-24 Jun 18—ARRL Field Day; North Strabane Park

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

WACOM HAM DX CORNER—MARCH 2018

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

2018 Mar05	2018 Mar31	Reunion	FR	F1FJR	TDDX 20180223	By F1FJR as FR/F1FJR fm IOTA AF-016; 80-10m; FT8; 50w; Buddipole, long wire; operation to continue until May 15; QSL OK via Buro or direct, also eQSL
2018 Mar08	2018 Apr05	Madeira	CT9	LotW	DL3KWF 20180221	By DL3KWF as CT9/DL3KWF and DL3KWR as CT0/DL3KWR; mainly CW and WARC bands + 60m; QSL also OK via DL3KWF/DL3KWR and eQSL
2018 Mar13	2018 Mar27	Saba & St Eustatius	PJ5	Home Call	SP9FIH 20180308	By SP9FIH as PJ5/SP9FIH, SP2EUD and SP2GCJ likewise fm St Eustatius; Looking for ATNO on SSB CW RTTY PSK FT8 (probably Fox and Hound version)
2018 Mar13	2018 Mar28	Curacao	PJ2	Club Log	425DXN 20180216	By DL9NBJ as PJ2/DL9NBJ fm IOTA SA-099; HF; CW SSB
2018 Mar14	2018 Mar27	Curacao	PJ2	LotW	DK5ON 20180111	By DK5ON as PJ2/DK5ON; 80-6m; CW SSB + digital (RTTY FT8); QSL also OK via DK5ON (Buro or direct)
2018 Mar15	2018 Mar29	Cameroon	TJ2TT	LotW	IK7JWY 20180130	By I2YSB JA1USA IK2CIO IK2CKR IK2DIA IK2HKT; 160-10m; CW SSB RTTY
2018 Mar15	2018 Mar30	Minami Torishima	JD1	JA8CJY	DXNews 20180303	By JG8NQJ as JG8NQJ/JD1 fm Marcus I (IOTA OC-073, QL64xg); HF; CW RTTY; operation to continue for 3 months
2018 Mar18	2018 Mar27	Vietnam	3W9CI	LotW	425DXN 20180317	By RM0F fm Hoi An and also IOTA AS-162; QSL also OK via RM0F (Buro or direct) and Club Log
2018 Mar19	2018 Apr15	Burkina Faso	XT2AW	M0OXO	DXNews 20180303	By DF2WO; 160-10m; CW SSB + digi-
2018 Mar20	2018 Apr29	Barbados	8P6DR	LotW	TDDX 20180202	By G3RWL; 80-10m; CW RTTY; 100w; G5RV; QSL also OK via G3RWL
2018 Mar21	2018 Apr03	Malawi	7Q7EI	LotW	DXW.Net 20171009	By 14 EI DX Group ops; 160-10m; SSB CW RTTY; QSL also OK via M0OXO and Club Log
2018 Mar23	2018 Apr02	Burina Faso	XT2MAX	LotW	DK1MAX 20180127	By DK1MAX; HF + 6m; CW FT8; holiday style operation; QSL also OK via DK1MAX and eQSL
2018 Mar27	2018 Mar31	Laos	XW1IC	LotW	TDDX 20180323	By E21EIC; 40-6m; QSL also OK via Club Log and E21EIC (Buro or direct)
2018 Mar27	2018 Apr11	Mauritius	3B8MM	DL6UAA	TDDX 20180220	By DL6UAA fm IOTA AF-049; 40-10m; CW + digital
2018 Mar29	2018 Apr19	Kosovo	Z68BG	LotW	425DXN 20180323	By HB9TSW; 80-17m; CW; spare time operation; QSL also OK via HB9TSW (Buro or direct) and eQSL

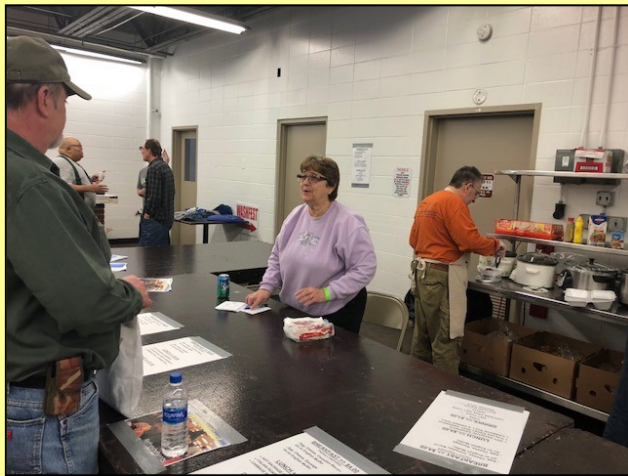
WACOM at WASH Fest! 25 February 2018



Bill—NY9H



Eyeball QSOs going on...



Norma (N3YJJ) running the kitchen



Two past Club president's: Bill—NY9H (WACOM) & Carol—KB3GMN (WASH)

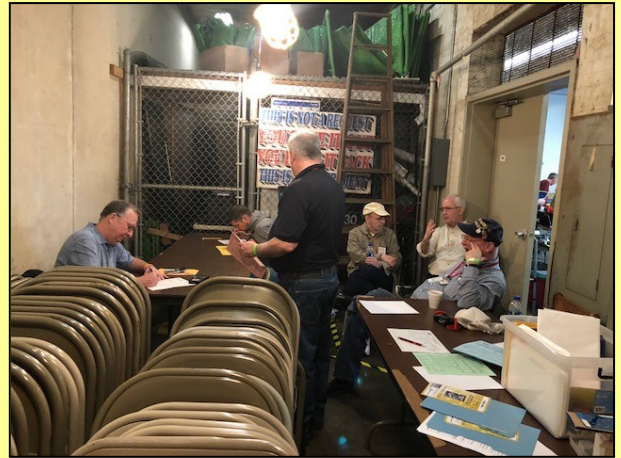


Jim—KC3HW, The Master Candy Seller

WACOM at WASH Fest! 25 February 2018



Dave (N3IDH) and Joe (N3XE)



VE Test session—Ken (AA3GM) was assisting (not pictured)



Folks looking for a bargain



Carol—KB3GMN and Bill—W3WH

WACOM Mourns Two Silent Key Members

Kevin Newberry - KN4AA (SK) BARNEY R JORDAN—N3QCI (SK)



Kevin R. J. Newberry 72, of Claysville, became a silent key at the Donnell House in Washington, Pennsylvania on Wednesday, December 27, 2017 following a valiant battle with cancer. Kevin was born April 22, 1945, in Malone, N.Y., a son of the late Robert and Katherine Rice Newberry.

Kevin retired as a Master Chief (the highest enlisted rank in the US Navy) on February 28, 1991 following a distinguished 30-year career. He served in a variety of positions ashore and afloat, however, his final and most rewarding assignment was as command master chief of the Naval Security Group Activity Northwest, Chesapeake, Va. He earned many accolades for superlative performance, including three Navy Commendation Medals, Navy Achievement Medal, six Navy Good Conduct awards, two Overseas Service Ribbons and numerous unit and campaign awards.

As we all know in WACOM, Kevin was an outstanding CW operator - cranking out the QSOs during many Field Day's. In addition to amateur radio, he also enjoyed writing, reading history, collecting antique bottles, fishing and metal detecting, playing the guitar singing and dancing, especially square dancing. He was a devoted blood donor and he won awards from Red Cross for his many blood donations. A people person, he enjoyed being with family and friends. He never knew a stranger and was a friend to all.

On November 31, 2001, he married Sally M. Murray, who survives.

Also surviving are three daughters, Jacqueline R. Watkins (Richard), Penny Lynn Malli (Christopher) and Roberta Ann Cooper (Colon); an adopted daughter, Veronique Preston; three stepchildren, Lisa, Tom and Erick; a sister, Jo-Anna "Jodi" Furnia (John); two half sisters, Donna Adams and Beverly Newberry; five grandchildren; a stepgranddaughter; three great-grandchildren; and numerous nieces and nephews.

Deceased are a daughter, Paula Newberry, and his first wife, Paulette Kay Newberry.

A memorial service and internment was held with full military honors at the National Cemetery of the Alleghenies in Cecil Township.



Age 91, of Finleyville, formerly of South Park passed away on February 2, 2018.

Husband of the late Mary (Sedan) Jordan; Father of Pamela (Leo) Cernaloger and Janice (Kelly) Dudas; Grandfather of Jeremy and Jordan Cernaloger, Kelsey and Connor Dudas; Brother of Janet G. Jordan and the late Mary, Walter and Edward, and son of the late Walter and Mary Jordan.

Barney was employed and retired from U.S. Steel, Irvin Works. He was a Navy Veteran who was a member of the American Legion Post 0613, Masonic Lodge Bethel Lodge #761, VFW Post 1940, and the Amateur Radio Clubs of both Monessen and Washington.

Family and friends were received on Monday 5 February from 2-4 and 6-8 p.m. at the JEFFERSON MEMORIAL FUNERAL HOME, Pleasant Hills. A Funeral Ceremony was held on Tuesday at 11 a.m. at Grace Lutheran Church in South Park.

WACOM DX Feature of the Month— Burkina Faso

XT2AW (19 Mar—15 April 2018)

Burkina Faso is a landlocked country in West Africa. It covers an area of around 105,900 square miles and is surrounded by six countries: Mali to the north; Niger to the east; Benin to the southeast; Togo and Ghana to the south; and Ivory Coast to the southwest. Its capital is Ouagadougou. In 2014 its population was estimated at just over 17.3 million. Burkina Faso is a francophone country, with French as an official language of government and business. Formerly called the **Republic of Upper Volta** (1958–1984), the country was renamed "Burkina Faso" on 4 August 1984 by then-President Thomas Sankara. Its citizens are known as *Burkinabé*

The northwestern part of present-day Burkina Faso was populated by hunter-gatherers from 14000 BC to 5000 BC. From the 3rd to the 13th centuries AD, the Iron Age Bura culture existed in the territory of present-day southeastern Burkina Faso and southwestern Niger. Various ethnic groups of present-day Burkina Faso, such as the Mossi, Fula and Dyula, arrived in successive waves between the 8th and 15th centuries. From the 11th century the Mossi people established several separate kingdoms. In the 1890s, during the European Scramble for Africa, the territory of Burkina Faso was invaded by France, and colonial control was established following a war of conquest between 1896 and 1904. The territory was made part of French West Africa in 1904, and the colony of French Upper Volta was established on 1 March 1919. The colony was named for its location on the upper courses of the Volta River (the Black, Red and White Volta).

The Republic of Upper Volta was established on 11 December 1958 as a self-governing colony within the French Community, and on 5 August 1960 it gained full independence, with Maurice Yaméogo as President. After protests by students and labor unions, Yaméogo was deposed in the 1966 coup d'état led by Sangoulé Lamizana, who became President. His rule coincided with the Sahel drought and famine, and facing problems from the country's traditionally powerful trade unions, he was deposed in the 1980 coup d'état led by Saye Zerbo. Encountering resistance from

Population: 20,107,509

Area: 105,900 Sq. Miles

Capital: Ouagadougou

DXCC: XT



trade unions again, Zerbo's government was overthrown in the 1982 coup d'état led by Jean-Baptiste Ouédraogo. The leader of the leftist faction of Ouédraogo's government, Thomas Sankara, became Prime Minister but was later imprisoned. Efforts to free him led to the popularly-supported 1983 coup d'état, in which he became President. Sankara renamed the country Burkina Faso and launched an ambitious socioeconomic program which included a nationwide literacy campaign, land redistribution to peasants, railway and road construction and the outlawing of female genital mutilation, forced marriages and polygamy. Sankara was overthrown and killed in the 1987 coup d'état led by Blaise Compaoré – deteriorating relations with former coloniser France and its ally the Ivory Coast was the reason given for the coup.

In 1987, Blaise Compaoré became President and, after an alleged 1989 coup attempt, was later elected in 1991 and 1998, elections which were boycotted by the opposition and received a considerably low turnout, as well as in 2005. He remained head of state until he was ousted from power by the popular youth upheaval of 31 October 2014, after which he fled to the Ivory Coast. Michel Kafando subsequently became the transitional President of the country. On 16 September 2015 a military coup d'état against the Kafando government was carried out by the Regiment of Presidential Security, the former presidential guard of Compaoré. On 24 September 2015, after pressure from the African Union, ECOWAS and the armed forces, the military junta agreed to step down, and Michel Kafando was reinstated as Acting President. In the general election held on 29 November 2015, Roch Marc Christian Kaboré won in the first round with 53.5% of the vote and was sworn in

WACOM DX Feature of the Month—Burkina Faso

XT2AW (19 Mar—15 April 2018)

Government and Politics

The constitution of 2 June 1991 established a semi-presidential government: its parliament could be dissolved by the President of the Republic, who was to be elected for a term of seven years. Political freedoms are severely restricted in Burkina Faso. Human rights organizations had criticized the Compaoré administration for numerous acts of state-sponsored violence against journalists and other politically active members of society. In mid-September 2015 the Kafando government, along with the rest of the post-October 2014 political order, was temporarily overthrown in a coup attempt by the Regiment of Presidential Security (RSP). They installed Gilbert Diendéré as chairman of the new National Council for Democracy. On 23 September 2015, the prime minister and interim president were restored to power. The national elections were subsequently rescheduled for 29 November.



Geography

Burkina Faso lies mostly between latitudes 9° and 15°N (a small area is north of 15°), and longitudes 6°W and 3°E. It is made up of two major types of countryside. The larger part of the country is covered by a peneplain, which forms a gently undulating landscape with, in some areas, a few isolated hills, the last vestiges of a Precambrian massif. The southwest of the country, on the other hand, forms a sandstone massif, where the highest peak, Ténakourou, is found at an elevation of 2,457 ft. The massif is bordered by sheer cliffs up to 492 ft high. The average altitude of Burkina Faso is 1,312 ft and the difference between the highest and lowest terrain is no greater than 1,969 ft. Burkina Faso is therefore a relatively flat country. The country owes its former name of Upper Volta to three rivers which cross it: the Black Volta (or *Mouhoun*), the White Volta (*Nakambé*) and the Red Volta (*Nazinon*). The Black Volta is one of the country's only two rivers which flow year-round, the other being the Komoé, which flows to the southwest. The basin of the Niger River also drains 27% of the country's surface.



Climate

Burkina Faso has a primarily tropical climate with two

very distinct seasons. In the rainy season, the country receives between 23.6 and 35.4 in of rainfall; in the dry season, the harmattan – a hot dry wind from the Sahara – blows. The rainy season lasts approximately four months, May/June through September, and is shorter in the north of the country. Three climatic zones can be defined: the Sahel, the Sudan-Sahel, and the Sudan-Guinea. The Sahel in the north typically receives less than 23.6 in of rainfall per year and has high temperatures, 41–117 °F. A relatively dry tropical savanna, the Sahel extends beyond the borders of Burkina Faso, from the Horn of Africa to the Atlantic Ocean, and borders the Sahara to its north and the fertile region of the Sudan to the South. The Sudan-Sahel region is a transitional zone with regards to rainfall and temperature. Further to the south, the Sudan-Guinea zone receives more than 35.4 in of rain each year and has cooler average temperatures. Burkina Faso's natural resources include gold, manganese, limestone, marble, phosphates, pumice, and salt.

Demographics:

Burkina Faso is an ethnically integrated, secular state. Most of Burkina's people are concentrated in the south and center of the country, where their density sometimes exceeds 48 persons per square kilometer (125/sq. mi.). Hundreds of thousands of Burkinabe migrate regularly to Ivory Coast and Ghana, mainly for seasonal agricultural work. These flows of workers are affected by external events; the September 2002 coup attempt in Ivory Coast and the ensuing fighting meant that hundreds of thousands of Burkinabe returned to Burkina Faso. The regional economy suffered when they were unable to work. The total fertility rate of Burkina Faso is 5.93 children born per woman, the sixth highest in the world.



Religion

Statistics on religion in Burkina Faso are inexact because Islam and Christianity are often practiced in tandem with indigenous religious beliefs. The Government of Burkina Faso 2006 census reported that 60.5% of the population practice Islam, and that the majority of this group belong to the Sunni branch, while a small minority adheres to Shia Islam. There are also large concentrations of the Ahmad-iyya Muslims. A significant number of Sunni Muslims identify with the Tijaniyah Sufi order. The government estimated that 23.2% of the population are Christians (19% being Roman Catholics and 4.2% Protestant denominations); 15.3% follow traditional indigenous beliefs, 0.6% have other religions, and 0.4% have none.

Lightning and Grounding

By Michael S. Higgins, K6AER (Courtesy eHAM)

Well it is that time of the year when postings turn to grounding and lightning protection.

So much information has been posted on lightning protection in this forum you could spend hours going through all the information listed and I would recommend doing so. Use the search engine in eHam and by all means forget the naysayers of grounding. Go to the PolyPhaser site and read their tutorials on lightning protection. Go to Lyncole, Hagar and ICE (Industrial Communications Engineers) and read their tutorials on grounding. There is no short cut to lightning protection. Your whole station and home needs to be addressed as a complete solution. Now if you live in the Northwest you can skip the rest of this article for your chances are very slim you would even see a thunderstorm. For the rest of the county this is an aspect of the hobby we have to deal with. This article is a reader's digest version of what must be done for surge protection and I hope it start you thinking about your home and station.

Every other year on average my station gets hit by lightning. This was not a problem when I lived in LA; I had a greater chance of being hit by stray bullets. I live in a very high lightning prone area called the Palmer divide in Colorado. June through August we have thunder storms every day with up to 40,000 strikes a day on average during those months. I am on my 3rd GP-9 antenna at the top of the tower. When a storm has gone by and I find what's left of a GP-9 in toasted shards all over the ranch, it doesn't take a rocket scientist to know what happened. I have lost no base station equipment to a lightning strikes but I have spent considerable time putting in proper grounding and surge protection on my station. As for the tower top fiberglass omni sticks, they're sac-

rificial and that just the cost of doing business where I live.

Proper grounding and surge protection works and works very well. The key is setting up low resistance grounding and the proper installation of grounding material. Disconnecting you equipment and putting it into a Faraday Shield box will work well but if you live in an area like my QTH you would be off the air for 3-4 months every year. Some hams like my self have more than one radio and going this route would mean my hobby is station assembly. I can't speak for most hams but after doing that a few times it loses its novelty.

The cell phone industry loses less than 20 sites a year to lightning. There are approximately 500,000 sites between Verizon, Nextel, Cingular, Sprint and others. Generally it is because the DSL line is struck and not the radio equipment. In the cell phone industry we ground at the top of the tower, base of the tower and where the cable goes into the facility. The facility has a ground halo inside and the all equipment is grounded to NEC code. Surge protectors are connected for all incoming and outgoing lines at the ground demarcation point. Site ground resistance is generally below 3 ohms. Four 20 foot deep ground rods is a grounding minimum. The AC entry panel has surge protectors (95% of all lightning damage comes in through the AC panel) and most importantly all the facility grounding is bonded together.



Lightning and Grounding (Con't)

Power lines take by far the greatest hits and the pole flash-over-rods pass any surges below 10,000 volts. That still leaves a lot of voltage coming down the power line. The primary and secondary portion of the pole transformer can arc over and your home is next in line. Your home AC panel should have surge protectors connected to the panel. You worry about your ham equipment but what about your expensive entertainment and appliances not to mention the possibility of fire. You can protect your home and panel for under \$100. Intermatic makes the Panel Gard model number IG1240RC surge protector for \$60 not including the two additional circuit breakers. This unit has LED's to indicate the unit's status and whether you have taken a power surge. Installation is just three wires into the panel.

Did I mention lightning rods for the roof? Lightning is fickle and might miss your gorgeous tower and strike through the roof to the electrical wiring in the ceiling. The ground return in your home wiring connects to the master ground in your AC panel. Remember a lightning discharge is looking for the lowest impedance path to ground, i.e. earth. If you live in a highly lightning prone area like Colorado, Florida and much of the mid west, lightning rods are a good investment. National Lightning Protection in Denver makes all the necessary material to install your lightning rod system. Their website is a wealth of information.

In my own station, all grounding is bonded with a number "0" solid copper bonding wire. My ground resistance is less than 3 ohms. I have several deep (20ft. by 2 inch) ground rods for the tower, AC panel and shack location. I also have a surface ground field of 21 8ft. ground rods spaced 16 feet apart, spread out in radials from the tower. At the base of the tower is a lightning/surge protection panel for the coax, rotor cables and stepper motors on the beam. For the

surge protection box I use 2 inch wide copper strap. Copper strap has much lower impedance than copper wire and much of lightning's energy is in the RF spectrum.

Coaxes are grounded at the top of the tower as well as the base. The AC panel has a commercial lightning protection panel to take care of incoming AC surges. The whole station is run on a pair of 3000 watt APC UPS systems to isolate the AC main from the equipment for minor surges. At the station, coaxes are terminated at a pair of grounded Alpha Delta coax switches and during storms the coax switches are in the grounded COM position. All equipment is grounded to a master ground buss bar on the back of the operating station. The master AC feed to the station has a commercial disconnect in the shack. I know many of you will think this is excessive but proof is in the pudding. I have suffered no equipment losses due to lightning strikes.

Remember if the cell phone, radio, public service and computer industry disconnected equipment for every summer storm, you would not have communications coverage or internet service for five months every year. The communication industry is connected 24/7. As a result, proper lightning/surge protection with good grounding works. Is it 100% full proof...NO, but it is infinitely more effective than sticking your head in the sand with denial. You don't plan on getting into an accident but you have car insurance. Lightning surge protection is an insurance policy and another tool in your station/home safety plan.

Many hams have their station and personal electronics insured but collecting and replacing equipment is tedious and would it not be easier to prevent the damage in the first place. Due to proper diligence and you'll sleep better at night.



Saint Brandon Island 3B7A DXpedition Will Field Five Operating Positions

02/28/2018



Plans appear to be on track for the upcoming 3B7A DXpedition to Saint Brandon Island, expected to kick off in early to mid-April. The DXpedition initially was planned for last fall. In a news release this week, the 3B7A team said the past year of preparations has been intense, and 700 kilograms of gear is now on its way to Mauritius, where it will join the generators and stock of fuel on the boat to Saint Brandon Island on April 3 with two team members.

A second vessel departing on April 5 will transport the other operators. The “pre-team” will oversee transit operations and identify sites to install stations and equipment, but no contacts will be made until the entire team is on site, the DXpedition’s organizers said.

Once 3B7A is on the air, priority will be given systematically to the most difficult regions with the shortest band openings. The five identical stations are capable of working all modes available to the eight operators. 3B7A will not be active on 60 meters nor on 6-meter EME.

3Y0Z Bouvet Island Team: We’ll Be Back

03/05/2018

Now safely home in the wake of their ill-fated DXpedition attempt to Bouvet Island, the members of the [3Y0Z Bouvet Island](#) team hope to try again to mount an operation from what’s been described as the most remote place on Earth. The subantarctic Bouvet — a Norwegian dependency — stands as the second most-wanted DXCC entity.

“[W]e are not the kind of people to give up,” DXpedition co-leader Bob Allphin, K4UEE, said in a statement released over the weekend. “The same thing happened when we were trying to activate Peter I Island in 2005. We came back the following year and...we got it done.” The 2006 3Y0X operation subsequently was judged the “DXpedition of the Decade.”

All told, the 3Y0Z team spent a month aboard MV *Betanzos*, the vessel that transported them from Chile to less than a mile off Bouvet to Cape Town, South Africa. Now back home for about 2 weeks, the team has had a little time to reflect. “We have been to Bouvet Island, and as a result, we have a better appreciation for the challenges we face,” Allphin said. “It is a dark, dismal, and dangerous place. Yet, when the sun shines, it is magnificent.”

The most difficult memory for the team, Allphin said, is the team’s final day off the coast of Bouvet, “when we saw the island, crystal clear in calm winds, less than a mile away. The conditions were perfect for our first reconnaissance flight and possible landing of men and camp infrastructure. But, during the violent night before, the captain had made the decision to abort. In retrospect, his call was clairvoyant. The mechanical propulsion failure on the ship that occurred would have brought disaster if it resulted in some of our men being stranded ashore.”

Allphin said the 3Y0Z Bouvet team is optimistic that it will get at least some of its money back from DAP, the Chilean company that owns the vessel. “That money [with] what we still have in the bank will allow us to begin making plans to try again,” he said. “We have begun the difficult task of looking for a suitable vessel, and would hope to go back to Bouvet in the next year or two.” He said no contributors have asked for their donations back, and several have urged the team to roll over their contributions to help fund the next attempt to activate Bouvet. “So, if we can pull all the moving parts together, we are going to try it again, hopefully, this time, with a different outcome,” Allphin concluded.

Allphin, Ralph Fedor, K0IR, and Erling Wiig, LA6VM, have served as co-leaders of the 3Y0Z effort. The 2018 3Y0Z team totals 20 radio amateurs, including the co-leaders, from eight different nations and includes some of the world’s top operators.



History-Related Events Will Operate from Rare Grid in Cape Cod National Seashore

03/05/2018

It is mere coincidence that the *Titanic* disaster in 1912 — one of the worst maritime disasters in history — and the birth of Guglielmo Marconi in 1874 — the developer of the wireless gear onboard the

ill-fated ship — both occurred in April. Marconi Wireless Company radio operators onboard the *Titanic* transmitted the distress signal after the gigantic



GRID FN-51

vessel struck an iceberg in the North Atlantic on its maiden voyage. Colocated Amateur Radio special events in April will commemorate both events.

ARRL International Grid Chase 2018 (IGC) enthusiasts take note: The special event operations will take place from FN51, a rare grid square that includes just a sliver of land along the Atlantic side of Cape Cod's lower arm; most of FN51 is water. Both events will be held at the Nauset Coast Guard Station in Eastham, Massachusetts.

The *Titanic*/Marconi Memorial Radio Association of Cape Cod operation will use W1MGY, in recognition of the *Titanic*'s MGY call sign. Operation will begin on Thursday, April 12, at 9 AM ET and continue until Sunday, April 15, at 1:27 AM ET (0527 UTC) — the time when the *Virginian* heard *Titanic*'s last radio message 106 years ago. The *Titanic* disaster claimed some 1,500 lives. The W1MGY operation will be open to the public only on April 14, 10 AM until 3 PM ET. Ac-

ording to W1MGY trustee Barry Hutchinson, KB1TLR, plans call for coverage on all bands, mostly within the General-class subbands, on CW and SSB. Two stations are planned.



Marconi's wireless station in Wellfleet on Cape Cod played a role in the rescue of 740 survivors from the *Titanic*. Marconi's wireless operator onboard the rescue ship *Carpathia* contacted the *Titanic* that fateful night to inform the wireless operator that the Cape Cod station was transmitting messages to the ill-fated ship. The *Titanic*'s Marconi wireless operator promptly replied, "Come at once. We have struck a berg," initiating the rescue of survivors.

Today, the Wellfleet station site is listed as a National Landmark on the National Register of Historic Places (1975) and is now part of Cape Cod National Seashore.

The Saturday, April 21, International Marconi Day (IMD) operation by the Marconi Cape Cod Radio Club will use the call sign KM1CC, which recognizes the former WCC shore station on Cape Cod. Operation will be on CW, SSB, and digital modes.

KM1CC will be among many stations participating in IMD activities on April 21. The 24-hour event is typically held on the Saturday closest to Marconi's birth date. During IMD, Amateur Radio enthusiasts around the world will attempt to make contact with various historic Marconi sites using communication techniques similar to those that Marconi used. Registered stations must operate from a site with some connection to Marconi.

Washington Amateur Communications

2018

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