



An ARRL Special Service Club

## November 2015 Newsletter

Volume 40—Number 11

### **NEXT MEETING**

**3<sup>rd</sup> Thursday, 19 November 2015, 7:30 PM**

BARC Clubhouse & Communications Center  
Sugarcreek Elementary School, Room 1 Lower Level  
51 South East Street, Bellbrook  
Talk-in on BARC 147.045(+) Repeater

**Pre-Meeting Hospitality & Fellowship**

**Starts at 7:00 PM**

### **PROGRAM**

**UAV's – Drones**

*by Jason Bowman, WG8B*

Jason's presentation will focus on the communications challenges associated with commanding and controlling the UAV as well as sending high bit rate payload data such as 720p video from significant distances under challenging spectrum conditions while both the UAV and the mothership are maneuvering significantly relative to one another. While the focus will be on the communications challenges, the negative impacts to speed, endurance, and costs associated with meeting the communications performance objectives with high reliability will also be addressed to demonstrate the systems thinking, planning, and trades that must be accomplished to deliver an operational system that meets all performance thresholds and/or objectives.

\* \* \* See page 2 for additional preview information. \* \* \*

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### UPCOMING ACTIVITIES

#### BARC November 19<sup>th</sup> Club Meeting

- Pre-meeting Hospitality & Refreshments
- Regular monthly Club meeting
- **Program: UAV Communications (Drones)** by Jason Bowman WG8B. See next paragraph for additional preview information
- Business meeting
  - Nomination of Officers & Jr. Director
- **Additional Program Information**

Both military and civilian aircraft often run into situations where their own-ship sensors become ineffective or unusable due to undercast weather or a need to standoff from the sensing objective for safety or other operational reasons. One way these limitations can be overcome is by launching small UAVs from the aircraft, which may in fact be another UAV, and having them fly under the weather or close to the objective.

This is a very challenging problem involving multiple technical disciplines. Tubes significantly constrain the amount of capability that can be put into the UAV including endurance, speed, sensor quality, and communications range requiring a very tightly integrated UAV design to ensure at least all performance thresholds are met. Furthermore, if the mothership has its own mission systems, this capability is best well integrated into the mothership in a way that the use of the UAV sensor looks and feel like their own-ship sensors. This presents an automation and human-machine interface challenge.

The main focus of the discussion will be on the communications challenges associated with

commanding and controlling the UAV as well as sending high bit rate payload data such as 720p video from significant distances under challenging spectrum conditions while both the UAV and the mothership are maneuvering significantly relative to one another. While the focus will be on the communications challenges, the negative impacts to speed, endurance, and costs associated with meeting the communications performance objectives with high reliability will also be addressed to demonstrate the systems thinking, planning, and trades that must be accomplished to deliver an operational system that meets all performance thresholds and/or objectives.

#### NO BARC "Dinner & A Movie" Night

**NO BARC "Dinner & A Movie" Night in November and December** because of the Thanksgiving and Christmas holidays.

The next **BARC "Dinner & A Movie" Night** will be **January 28<sup>th</sup>** (the **LAST** Thursday) at **7 PM**.

**Dinner Menu** and **Movie Title** will be announced at the January Club meeting and via posting to the BARC email Reflector.

Enjoy the Holidays with family and friends!

#### BARC Planning Group Meeting (12/03)

The next BARC Planning Group Meeting will be held December 3<sup>rd</sup> (1<sup>st</sup> Thursday) at 7:30 PM at the Clubhouse. All officers are expected to attend if available and all coordinators are encouraged to attend to participate in the discussions and planning of future BARC activities and projects. BARC members are always welcome to attend.

## [MVMA MESH Meeting \(TBA\)](#)

The date, time and location of the next Miami Valley Mesh Alliance meeting “to be announced.”

## [Montgomery County ARES \(02/23\)](#)

The next Montgomery County ARES general membership meeting will be Tuesday, February 23, 2016, 7:00 PM at the American Red Cross Dayton Area Chapter, located at 370 West First Street, just east of I-75 in downtown Dayton. For more information about Montgomery County ARES, contact EC Rob Flory KA5RUC at [KA5RUC@MoCoARES.org](mailto:KA5RUC@MoCoARES.org)

## [Greene County ARES \(02/29\)](#)

The next Greene County ARES meeting will be Monday, February 29, 2016, 7:30 PM, at Beaver Creek Township Fire Station 61 Training Room, Dayton Xenia Road just west of Orchard Lane. Further details via the respective email lists. For more information about Greene County ARES, contact EC Fred Stone W8LLY at [W8LLY@ARRL.net](mailto:W8LLY@ARRL.net)

## **PAST ACTIVITIES**

### [Minutes—October 15<sup>th</sup> Club Meeting](#)

By Steve Siwecki, KD8NUC, Secretary

#### **Officers and Members-at-Large Present: 4**

- Paul Sharp KD8OPN, Treasurer
- Steve Siwecki KD8NUC, Secretary
- Megan Espenshade-Vinande KD8RES, Sr. Director
- Jerry Cornett KD8TVP, Jr. Director

**General Membership present: 23**

**Guests: 6**

**Total Attendance: 33**

**Quorum: Yes**

#### **Officers and Members-at-Large Absent:**

- Don Parker KB8PSL, President)
- Chris Stauter KD8APN, Vice President (excused)

October 15 marked BARC’s Annual Chili Dinner meeting. Dinner began at 6:30 pm and opened with a prayer offered by Steve Bowman KD8VPT. During the course of the dinner, the membership paused for a very brief business portion as follows.

**Approval of the September 2015 Club Meeting Minutes.** Ken Gunton W8ASA put forth a motion to approve the September 2015 meeting minutes as written. Jim Lusk KC8EFD offered a second to the

motion. The motion passed by a vote of the membership present.

**Treasurer’s Report.** Treasurer Paul Sharp reported the following BARC fund status summary for the period ending October 8, 2015:

Fund	10-Sept-15	Income	Expenses	8-Oct-15
General				
Comm. Center				
Refreshments				
Repeater				
ALL FUNDS				

**Approval of the Treasurer’s Report.** Joe Muchnij N8QOD put forth a motion to approve the September 2015 Treasurer’s report. Greg Goffe N8DRG offered a second to the motion. The motion passed by a vote of the membership.

The following items were announced:

- Movie Night will be held in two weeks; the movie will be “Fried Green Tomatoes”. Due to the Holidays, Movie Night will not be held in November or December 2015.
- The 2015 Annual AMSAT Conference will be held in Dayton. Visit [amsat.org](http://amsat.org) for details
- The CQWW SSB Contest will be held next weekend

A motion to adjourn the business portion of the Dinner meeting was put forth by Jim Totten WA8HUB. Wynn Rollert W6CDR offered a second to the motion. The motion passed by a vote of the membership. The Chili Dinner continued into the evening.

### [Notes—November 5<sup>th</sup> Planning Group](#)

By Steve Siwecki, KD8NUC, Secretary

#### **Officers Present:**

Don Parker KB8PSL, President  
Chris Stauter KD8APN, Vice President  
Paul Sharp KD8OPN, Treasurer  
Steve Siwecki KD8NUC, Secretary  
Jerry Cornett KD8TVP, Jr. Director

#### **Functional Coordinators Present:**

Fred Stone W8LLY, Newsletter/Edu./Emergency  
Eric Vinande KG6NFJ, Communication Center

#### **General Membership Present:**

Henry Bussey W8TOG  
Greg Goffe N8DRG  
Mel Metzler KD8VWC  
Dave Walton KD8GCR

#### **Officers & Members-at-Large Absent:**

Megan Espenshade-Vinande KD8RES, Sr. Director (excused).

**The Meeting was called to order at 7:40 by the President.**

**Communication Center Battery Back-up.** Dr. Gregg Goffe proposed setting up a battery back-up system for the clubhouse stations. This would provide uninterrupted power while waiting for an emergency generator to arrive. The system would include some deep cycle marine batteries wired in parallel (for current capacity) and an inverter. Greg also proposed installing some efficient LED lighting. The system will cost a few hundred dollars and the plan was well received by the members present. Greg, who has installed a similar system at his home ham shack, will prepare a detailed plan for the club stations.

**“Winter” Field Day.** Eric Vinande proposed that BARC participate in the upcoming “Winter” Field Day to be held 30-31 January 2016. The event is sponsored by the Winter Field Day Association. BARC could operate inside or outside (in the fenced area adjacent to the clubhouse) using normal rooftop antennas. The event held outside will provide experience in emergency operations in cold weather conditions (but is not required). Eric will continue to pursue the possibility.

**Greene County Emergency Preparedness Committee Meeting.** GCARES & BARC will host the next quarterly meeting of the Greene County Emergency Preparedness Committee at the BARC Clubhouse & Communication Center November 12<sup>th</sup> from 2:00-3:30 PM. Greene County ARES EC Fred Stone will present an overview of ARES and the capabilities of the BARC Comm Center operation during a disaster or communication emergency. Fred request a couple BARC member to assist in greeting Committee members and showing them through the Communication Center. Twelve to twenty people are expected to attend.

**Leak in Ceiling.** Chris Stauter noted that a ceiling tile was found soaking wet. The building superintendent will need to be informed.

**Door for Roof Access.** Henry Bussey proposed that BARC consider talking with the school superintendent about installing a door on the third floor to provide easier access to the roof. The general consensus was that the need is not critical and the cost, which would have to ensure that building and fire codes are met, could not be justified. The proposal was tabled.

**Antenna Project.** Larry Darner KD8RER (not present) had sent out an e-mail detailing the project status to date. Efforts to continue setting up a work party for completion are underway.

It was suggested this evening that a second conduit for antenna cables be installed adjacent to the existing conduit. This would eliminate the need to pull out the existing wire in order to facilitate installation of additional cables. This will also add capacity to the system. There were no objections to this plan of action.

It was suggested, by Jim Tideman N8IDS, that BARC use the recently refurbished grey rotor for the Tower 2 antenna project. Fred Stone recommended purchasing a number of rotor wire pigtails for rotor installation both on the roof and in the clubhouse. The clubhouse side pigtails will facilitate interchange between the various stations. Five pigtail sets at \$22 each will be needed. The membership present concurred with the pigtail recommendation.

**Nominations Committee Report.** Nominees are still needed for President, Vice President and Jr. Director. The Nominations Committee is to report the slate of candidates at the November General Membership Meeting.

**Future Meeting Program.** Eric Vanande offered to give a presentation on more **Raspberry PI** ham radio applications. Given the current meeting program schedule, either the January, February or April meetings are possible time slots for Eric's program.

**Clubhouse Station HF Upgrade Proposal.** It was proposed that a high end HF rig (~\$3k) be purchased for the Comm Center. This would be useful for advanced filtering where QRM is problematic during attempted DX contacts. Alternatively, two medium price (e.g. Kenwood 590 @ ~\$1.5k each) could be purchased. This proposal could be funded by the sale of BARC's Drake equipment. Otherwise, the existing Kenwood 570 rig would have to be repaired. This existing Kenwood has been experiencing problems and currently not functioning.

There were mixed responses on both the need for a higher end rig or the sale of the Drake station. It was decided that a committee be formed, led by station coordinator Eric Vinande, to research the viability of the proposal, the options and the alternatives.

**2016 Functional Coordinators and Chairmen.** Fred stone will continue as the Emergency Coordinator and the Newsletter Coordinator for 2016 but would like to transfer the Education Coordinator position to another member. Don Parker will assume the overall Public Service Functional Coordinator position. Darryl Fowler KD8JQE (not present) has indicated that he would keep Field Day Committee chairmanship and also continue to coordinate the Little Miami River Kleeners (LMRK) event. All other functional coordinators will need to

reaffirm (or decline) their continued service in their current role.

### **Miscellaneous Action Items for Fred Stone.**

- Contact Dan Kenney concerning the gravel bed for the repeater emergency generator.
- Remove the radios in the trailer soon.
- Check this coming Sunday on how many students are interested in the free HT incentive so that Paul may effect the radio purchase.

Fred also suggested using a large capped PVC pipe section to store the fence posts used for safety marking the Field Day antenna array.

**Treasurer's Report.** Paul Sharp inquired as to the status of the repeater hardline for purchase. Russ Roysden was not present to comment on the purchase of the new hardline. Fred Stone anticipated that Dan probably would prefer to postpone the tower climb until spring. Paul also noted the following expenses (pending or settled).

- Post Office Box fee of \$xx.xx
- Ohio Area Repeater Council) dues of \$x.00 per repeater due before December 31<sup>st</sup>.
- Recognition Gift Cards
- Additional coax for Antenna Project (~\$xxx.00)

**The president adjourned the meeting at 9:12 PM.**

## **GENERAL INFORMATION & REPORTS**

### **BARC 2016 Dues Now Payable**

Most BARC memberships expire December 31, 2015. Free memberships for hams newly licensed in 2015 expire 12 months from the end of the month first licensed. Free memberships for new hams licensed in November or December are good through December 31, 2016. New members joining in November or December pay \$15 for 2016 dues.

- Annual membership renewal is \$15 per member and \$3 for each additional family member living at the same address.
- BARC members first licensed in 2015 will be notified by the Treasurer of their free membership expiration date. Such members will pay a pro-rated amount of dues for the 2016 membership year.
- 2015 memberships become delinquent if not renewed by the February meeting. The 2016 Membership Directory will include all members who have renewed or joined by March 1, 2016.

Dues help support Club activities such as the Clubhouse, the Communications Center, Field Day expenses, the Repeaters, and other purchases and activities as decided by the Club during the year.

BARC Treasurer Paul Sharp will accept dues at Club meetings and other activities or you may send your check via U.S. mail to:

**Paul Sharp KD8OPN, BARC Treasurer  
PO Box 73, Bellbrook OH 45305**

When you pay your 2016 dues, please complete and return a Membership Registration Form to update Club records. A separate form should be completed for each family member. Please include ALL of the information requested on the Membership Registration Form for Club records. You may draw a circle around any information you do not want published in the BARC Directory. Information in the BARC Directory is confidential only to the extent that the Directory is distributed only to Club members and is not to be given out to non-members.

A 2016 BARC Directory will be distributed by email and a few printed copies may be available at the March 2016 Club meeting.

### **BARC Weekly Net**

Remember to join your friends for the BARC weekly Net on Sunday evenings at 8:00 PM on the BARC 2m repeater, 147.045 (+)(no PL).

The Net provides an opportunity between Club meetings to share news and information about Club and personal projects and activities.

A BIG THANK YOU to co-Net Control Stations Eric Vinande KG6NFJ, Greg Goffe N8DRG and Mike Kinsey KD8GME, and Megan Espenshade-Vinande KD8RES who substitutes for Eric occasionally.

### **BARC Fundraising Opportunities**

#### **• KROGER REWARDS PROGRAM**

Please remember to use your Kroger Card when shopping at Kroger's and support BARC through the Kroger Rewards Program. If you have not yet signed up and need help, please bring your Kroger Card to the next BARC meeting and we'll help you get registered.

#### **• AmazonSmile Rewards Program**

BARC is now registered in an Amazon rewards program called **AmazonSmile**. Charitable and non-profit organizations receive **0.5%** of total purchase price (small but it adds up over time). A web page of

basic Q&A info on the AmazonSmile program is available at:

[http://smile.amazon.com/about/ref=smi\\_se\\_ft\\_abt\\_saas](http://smile.amazon.com/about/ref=smi_se_ft_abt_saas)

You must shop through **smile.amazon.com** for BARC to receive benefits. You can use your existing Amazon account. To sign up, simply select Bellbrook Amateur Radio Club as your preferred charity when prompted.

AmazonSmile is a simple and automatic way for BARC members (and family and friends) to support BARC, at no cost to you, every time you shop at Amazon. When you shop at [smile.amazon.com](http://smile.amazon.com), you'll find the exact same low prices, vast selection & convenient shopping experience as Amazon.com, with the added bonus that Amazon will donate a portion of the purchase price to BARC. So, be sure to register in AmazonSmile the next time you shop At Amazon and then log back in at AmazonSmile.

### **ARRL Discounted Membership Offer**

BARC members are reminded that one of the benefits of Club membership is the opportunity to become an ARRL member at a discounted price.

Effective January 1, 2016, ARRL membership will increase from \$39 to \$49 per year. This is the first increase in a number of years. Until then, you can join or renew for multiple years at the \$39 rate.

BARC is an ARRL affiliated club and receives a commission for new first-time ARRL memberships transacted through the Club. BARC passes on this discount as a club membership benefit in order to promote ARRL membership.

BARC members currently receive a \$15 discount on a NEW first year ARRL membership cost **when placed through the Club**. Please contact BARC Treasurer Paul Sharp KD8OPN for details.

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### **Please see below for:**

- *BARC Calendar*
- *2015 Officers & Coordinators*
- *In the Event of an Emergency Situation*
- *Directions to the BARC Clubhouse*

## BARC CALENDAR

(all times are local)

### NOVEMBER 2015

01 Su	Technician Class License Course BARC Clubhouse—Training Center 1830-2130
05 Th	BARC Planning Committee Meeting 1930 BARC Clubhouse
07 Sa	ARRL November Sweepstakes—CW BARC Comm Center—Starts 1600 Saturday, Ends 2200 Sunday
08 Su	Technician Class License Course BARC Clubhouse—Training Center 1830-2130
15 Su	Greene County License Tests 1800, BTFD Station 1
19 Th	BARC Regular Monthly Meeting 1930 BARC Clubhouse
21 Sa	ARRL November Sweepstakes—Phone BARC Comm Center—Starts 1600 Saturday, Ends 2200 Sunday
-----	NO GCARES Meeting This Month

### DECEMBER 2015

03 Th	BARC Planning Committee Meeting 1930 BARC Clubhouse
17 Th	BARC Regular Monthly Meeting 1930 BARC Clubhouse
-----	NO GCARES Meeting This Month

## REGULARLY SCHEDULED NETS

Daily (Sunday through Saturday)	1030, 1615 and 1845 <u>Ohio Single Sideband Net (OSSBN)</u> Primary: 3972.5 KHz LSB Alternates: 3968 & 7272 KHz LSB
Sundays	<u>1900 Newcomers &amp; Elmers Net</u> (Cincinnati) 146.670 (-) (123.0 PL)
Sundays	<b>2000 BARC Weekly Net</b> 147.045 (+) (no PL) [Alt = 443.675]
Sundays	<u>2100 Miami Co. Voice/Data Net</u> (Data Net follows Voice Net) 145.230 (-) (no PL)
Tuesdays	<u>1900 Ohio ARES HF Net</u> W8SGT Net Control at OEMA HQ Primary: 3875 KHz LSB Alternate: 7240 KHz LSB
Tuesdays	<u>2000 Ohio Digital Emergency Net</u> Primary: 3580 KHz USB Alternate: 7072 KHz USB
Tuesdays	<u>2000 MoCoARES Weekly Net</u> 146.640 (-) (123.0 Hz PL) ( <u>Except</u> —No Net on last Tuesday of even months (MoCoARES meeting)) ( <u>Except</u> —On 2 <sup>nd</sup> Tuesday: Voice and Data Net on 444.250 (+) (123.0 PL)
Tuesdays	<b>2100 GCARES Net</b> (Voice/Data/Mesh) 146.910 (-)(no PL) [Alt = 442.725]
Wednesdays	<u>2000 Ohio District 3 ARES Net</u> (West Central Ohio Regional Net) 145.110 (-) (67.0 Hz PL)
Wednesdays	<u>2000 Beginners Net</u> (Dayton Area) 444.87 (+) (94.8 PL)

## BELLBROOK AMATEUR RADIO CLUB

PO Box 73, Bellbrook OH 45305

### 2015 Officers

#### PRESIDENT

**Don Parker**      **KB8PSL**      **673-1754**  
(DParker28@att.net)

#### VICE PRESIDENT

**Chris Stauter**      **KD8APN**      **313-4100**  
(CStauter@aol.com)

#### SECRETARY

**Steve Siwecki**      **KD8NUC**      **278-3086**  
(KD8NUC@ARRL.net)

#### TREASURER

**Paul Sharp**      **KD8OPN**      **427-3780**  
(PSharp1@woh.rr.com)

#### SENIOR DIRECTOR

**Megan Espenshade-Vinande**      **KD8RES**  
(Megz1176@hotmail.com)      **424-5846**

#### JUNIOR DIRECTOR

**Jerry Cornett**      **KD8TVP**      **361-3730**  
(JerryC741@gmail.com)

### 2014 Coordinators

#### CLUBHOUSE COORDINATOR

**Jim Lusk**      **KC8EFD**      **848-4086**  
(JLusk@woh.rr.com)

#### CLUBHOUSE LIBRARIAN

**Natinka Siwecki**      **KD8NUA**      **478-7831**  
(KD8NUA@ARRL.net)

#### COMMUNICATIONS CENTER COORDINATOR

**Eric Vinande**      **KG6NFJ**      **303-241-9057**  
(Evinande@gmail.com)

#### EDUCATION COORDINATOR

**Fred Stone**      **W8LLY**      **470-6948**  
(W8LLY@ARRL.net)

#### EMERGENCY PREPAREDNESS COORDINATOR

**Fred Stone**      **W8LLY**      **470-6948**  
(W8LLY@ARRL.net)

#### FIELD DAY COORDINATOR

**Darryl Fowler**      **KD8JQE**      **310-1039**  
(KD8JQE@att.net)

#### HOSPITALITY COORDINATOR

**Natinka Siwecki**      **KD8NUA**      **478-7831**  
(KD8NUA@ARRL.net)

#### NEWSLETTER EDITOR

**Fred Stone**      **W8LLY**      **470-6948**  
(W8LLY@ARRL.net)

#### PUBLIC SERVICE COORDINATOR

**Mel Metzler**      **KD8VWC**      **857-7116**  
(Melvin.Metzler@gmail.com)

#### REPEATER CO-COORDINATOR

**Russ Roysden**      **N8NPT**      **426-3407**  
(N8NPT@ARRL.net)

#### YOUTH PROGRAM COORDINATOR

**OPEN**

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In the event of an actual, anticipated or potential emergency situation,

**MONITOR (or ACTIVATE)**

a Greene County  
Information & Alerting Net  
on 147.165 MHz

Directions  
to the  
**BARC Clubhouse and  
Communications Center**

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The BARC Clubhouse  
& Communications Center  
Rooms 1 & 3 Lower Level  
Sugarcreek Elementary School  
51 S. East Street, Bellbrook  
(One block east & one block south  
from the traffic light  
in downtown Bellbrook —  
Enter at South end of building)