

# The Zero Beat

## THIS MEETING

**October 14, 2009**  
**7:30 P.M.**  
 (socializing begins at 7)  
**Hoover Elementary**  
**23720 Hoover Ave.**  
**Hazel Park 48030**

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## GENERAL MEETING

Welcome to fall. I heard that bow season has arrived along with the annual SET. Did anyone go dear hunting? Many of our members were busy with local ARES activities. Thank you all for helping out.

Our own Jerry Begel, W9NPI will give a presentation at the **October 14** General Membership Meeting entitled: Telegraphy: Wired, Wireless, and Otherwise. He'll talk about various kinds of long-distance pulsed communication, with some special attention paid to telegraph keys.

Look forward to seeing you at the meeting.

## PRESIDENT'S QRM

It's October and fall is here. There is still time to do antenna projects before the white stuff comes. The leaves will be falling off the trees and that makes it easier to put wire antennas up. Summer noise is fading away from the 75-80 meter and 40 meter bands making it easier for us to work some good DX on those bands. We are starting to see some sun spot activity and openings on the 12 meter and 10 meter bands.

Amateur radio is great because it has so many different aspects and directions you can go in. Many have been introduced to their life long careers via amateur radio. CQ Magazine has been running articles every month about a different famous person that also happens to be or has been an amateur radio operator. This month it's a Nobel Prize winner. That is why it is so important to recruit younger people into the hobby.

QSL anybody? We have the old tradition of exchanging QSL cards after making

a radio two way contact. QSL cards are used for various awards. The mail has gotten very expensive. Now we also have LoTW (Log Book of the World) and eQSL. You just upload your logs to LoTW and eQSL via the Internet at no cost to you. You can download your confirmations any time. If you claim the confirmed contacts for an award then you pay so much for each contact, but it's a lot less expensive than the mail. I was against eQSL at first but then found out that CQ and IOTA both accept those eQSL confirmations for their awards. LoTW confirmations are accepted for ARRL awards and are more popular in the North America. eQSL seems more popular overseas. Even if you don't need the confirmations your fellow hams do so upload your logs to both LoTW and eQSL.

Does any one read this? In the last issue I asked for past copies of the logs for W8HP and W8JXU. I also asked those who have received an amateur of the year award

*(Continued on page 2)*

## OFFICERS &amp; VOLUNTEERS

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- **50/50 & Donuts:** Rey Bora KD8FVN
- **Field Day :** John Teagardin, AA8UU  
[aa8uu@arrl.net](mailto:aa8uu@arrl.net)
- **Banquet,**

## NETS

**Oakland County Amateur Radio Public Service Corp (ARPSC)**

Every Thursday @ 8 pm on 146.900 MHz/100pl. Hospital Radio Net on last Thursday of each month during the net. (W8OAK-3 will run packet on 147.56 MHz for those wanting to practice and test their equipment)

[www.qsl.net/w8oak](http://www.qsl.net/w8oak)

**Sunday Night 2-meter Phone Net**

Every Sunday at 9:00 PM local time, (146.64 (-), catch up on club news and information, and just to keep in touch. All amateurs are welcome to check in.

**NTS Traffic Nets**

the Southeast Michigan National Traffic System (NTS) net Normally held every night at 10:15 PM local time on 145.33. Net manager is Diane, W18K.

**Wolverine Net**

The 75 Meter Wolverine Net meets on 3935 KHz (LSB phone) daily at 7:00 PM local time with pre-net starting at about 6:30 PM. The nets start a half hour earlier in winter. You can get details from Joe, K8JRE [joecuchetti@comcast.net](mailto:joecuchetti@comcast.net) or Ed, W8EDE [ed@ellisgen.com](mailto:ed@ellisgen.com).

**HPARC medium speed CW net**

Every Tuesday night at 8:00 PM on 28.128 MHz. AI, N8WYO, runs the net and will match your speed. This is a net for folks who have mastered the 5 wpm, and want to move up to faster speeds, or if you're a little rusty.

AI calls CQHP at 8 PM sharp!

## QRM CONT.

*(Continued from page 1)*

to let me know which year it was. No one has responded

From the Amateur's Code: "The Radio Amateur is **FRIENDLY**...slow and patient operating when requested; friendly advice and counsel to the beginner; kindly assistance, cooperation and consideration for the interest of others. These are the hallmarks of the amateur spirit." This is from an ARRL publication.

Don't forget the Official HPARC Sunday night net at 9:00 pm on 146.640 MHz We would be happy to have everyone sign up to take a turn as the net control operator; it is fun and good experience. The net is what we make it, so let's everyone meet there and make it the best net in the area. Our other HPARC net is the medium speed CW net, run by AI N8WYO, every Tuesday at 8:00pm on 28.128 MHz

See you at the October meeting, on the net and at Saturday morning breakfast.

Radio gets results; keep having fun with your radios

73

Murray, KE8UM

## MERIT BADGE

Become a Radio Merit Badge Counselor with The Boy Scouts of America. Call the local Scoutmaster and volunteer. Any adult over the age of 18 can do it. Running a Radio Merit Badge class takes just a few hours in a single afternoon and it can be combined with a local Hamfest for even more ham radio and electronics fun for the kids. While you're at it, don't forget to get the parents and scoutmasters interested, too!

## MEETING MINUTES

Wednesday September 9, 2009

Meeting Called to order at 7:30 PM by the President,  
Murray Scott, KE8UM.

### Speaker

Dr. Patrick Seitzer, WA4DSR, an astronomer at the University of Michigan, gave a presentation about "Space Debris," and described its effect on the launch and operation of numerous satellites, as well as interfering with earth-based astronomical observation.

A coffee & donuts break followed.

Business Meeting called to order at 8:45 PM

### Reports

#### Secretary's Report

June, 2009 General Meeting Minutes, as published in the September Zero Beat. Moved to accept: K8MAR, Second: N8FE. Approved.

#### Treasurer's Report

John Fleming, K8UP, gave an accounting of the club books including transactions and balances. Moved to accept Treasurer's report: K8MAR, Second: N8UZE. Approved.

#### Siren Test

K8UP announced that at the ARPSC Oakland County Siren Test conducted on September 5, Club Members monitored more than half of the earmarked sirens

#### Licensing Classes

K8UP advised that no Licensing Classes have yet been scheduled for the new season. He is open to suggestions as to the types of classes needed.

#### Field Day

KE8UM proposed that the Club use Green Acres Park as its Field Day Location Next Year.  
We will be unable to apply for a reservation until May, though. He asked for a sense of the membership. A short discussion followed. No Action Taken.

### New Business

#### New Members

KE8UM brought up the membership applications for the following:

Robin Edelson KG8V (on QRZ his name is Bernard)

Lee Ricelli, Jr. WA8RNB

(need name—is the call correct?)KE8LWC

All were accepted by acclamation!

#### Raffle Tickets

K8ABZ advised that there is no limit on the number or type of tickets that members and guests can buy.

#### President's Notes

- ◆ Upcoming events:
  - ◇ Great Lakes Symposium and Findlay, Ohio Ham-fest/Swap, September 19-20
  - ◇ Adrian Swap, September 20
  - ◇ Oak-Apple Run, May 30
- ◆ School Custodians found a tabletop Podium and gave it to KE8UM. It is now part of the Club Inventory.
- ◆ KE8UM is working with Sean Fleming, K8KHZ, to obtain a new source of Club Jackets.

#### Raffle

- ◆ KD8HXM won the 50/50 raffle.
- ◆ Tickets were sold towards the next Mobile Transceiver. When enough tickets are sold to purchase a unit, a winner will be drawn.
- ◆ Visitor Bob Klinger, N8YWK, who won the TR-2800 Mobile Transceiver in May, announced that the radio was for sale.

#### Adjournment

Meeting was adjourned at 9:15 PM

Respectfully submitted,  
Jerry Begel, W9NPI  
Secretary

## C Q D X . . .

## CONTEST CORNER

**Conway Reef**

Just before letting today's issue go your editor received a satellite phone call from DJ8NK, Jan, on Conway Reef. Everything is going well at 3D2OCR. Jan did say they have about a two hour window around midday where there is little to any activity because of propagation conditions. The team will be shutting down on Thursday October 18th around 1800Z.

**Fiji Island until October 28th**

3D2KJ (SP5DRH), Jacek and 3D2MJ (SP5EAQ), also Jacek, are now in the Fiji Island until October 28th. They have not been able to erect the 80 meter antenna due to the weather conditions. On Topband they have installed a 19 meter high vertical which has two elevated radials, located on the beach and most of the time in the water. Jacek (3D2KJ) is using the vertical for receiving as they have not been able to install any receiving antennas do to space allocation. They hope to soon have this resolved.

If you have not worked the FT5GA DXpedition on Glorioso today probably going to be your last chance, as it appears they will now fly off island tomorrow. F6AOJ reports that one of the three log files sent oday was corrupted. That log contained QSOs from the 10 and 160 meters and RTTY logs. It has been regenerated and resent. Also the team now has four rigs back on the air. The last station is running 100 watts. They are pushing hard to make 50,000 QSOs before shutting down. They will be shutting down by their local sunrise tomorrow morning (0231Z).

**Seoul, South Korea on the air**

VU2GMN reminds us the SEANET Convention is fast approaching. He says it is "A very nice convention where you can meet friends from all over the world."  
[http://www.sabah.net.my/seanet/seanet\\_2009.htm](http://www.sabah.net.my/seanet/seanet_2009.htm). This year's location is in Seoul, South Korea. Look for the HL09SEA special callsign on the air from the event, October 23-27.

Welcome to Contest Corner. As usual, there seems to be something for everyone. CU on the air.

**OCTOBER 2009**

- Oct 9 - Oct 11 **YLRL DX/NA YL Anniversary Contest**  
 Oct 11 UBA ON Contest, SSB  
 Oct 10 - Oct 11 ARRL EME Contest  
 Makrothen RTTY Contest  
 Oceania DX Contest, CW  
**Pennsylvania QSO Party**  
**Arizona QSO Party**  
**Iowa QSO Party**  
 Oct 17 Araucaria VHF Contest  
 Oct 17 - Oct 18 JARTS WW RTTY Contest  
 ARCI Fall QSO Party  
 Stew Perry Topband Challenge  
 Worked All Germany Contest  
**W/VE Islands QSO Party**  
**New York QSO Party**  
 Oct 19 Run for the Bacon QRP Contest  
 Oct 18 - Oct 19 **Illinois QSO Party**  
 Oct 19 - Oct 23 **ARRL School Club Roundup**  
 Oct 24 - Oct 25 **CQ Worldwide DX Contest, SSB**  
 Oct 24 - Oct 25 10-10 Int. Fall Contest

**Operating Contests**

Have you worked any contests lately? We'd like to hear about your experience. Send me an email with how you have your station set up for contesting. Do you do anything different than when you operate for DX?

Has anyone gotten the All mode WAS award? Let's brag a little. Part of the fun of contesting is that it helps us get the contacts for DXCC and WAS and other awards.

Do you have a special technique for contesting that you'd like to share? We'd love to hear it.

73  
 Marsha N8FE

## ARRL PROTECTS THE SPECTRUM

The fall operating season is just around the corner. Whether it's because radio conditions improve or just because attention returns to indoor pursuits as the days get shorter, on-the-air activity always picks up at this time of the year.

Do you operate on 40 meters? "If you haven't been on the band lately, you're in for a real treat!" said ARRL Chief Executive Officer David Sumner, K1ZZ. "Years of patient effort by the ARRL and by our sister members of the International Amateur Radio Union (IARU) have paid off. The band is more useful now than it's been in more than 70 years. When you think of 40 meters, you probably think of interference from foreign broadcasters. Here in the Americas, amateurs always have had access to 7,000-7,300 kHz - but we had to tolerate broadcasters in the rest of the world in the upper two-thirds of the band."

Sumner said he can recall the "futility" he felt as a 13-year-old Novice, "trying to make myself heard through the racket with just two crystal-controlled transmitting frequencies to choose from. I remember taking the crystal holders apart and putting pencil lead on the crystals in a vain attempt to slip in between the broadcasting behemoths." At the 2003 World Radio communication Conference (WRC-03) - 40 years later - he had the privilege of being present in Geneva when it was agreed that amateurs had made the case for a wider worldwide amateur band, free of broadcasting interference." For the first time in the history of radio communication, an HF broadcasting allocation would be shifted in order to accommodate the needs of another radio service - the Amateur Radio Service!

Sumner called the WRC-03 decision "very gratifying," but said an important question remained: Would the broadcasters really move? "The International Telecommunication Union has no enforcement authority," he explained, "and operation in contravention of the international Radio Regulations is not exactly unknown. In fact, the transition turned out to be quite dramatic. On the last weekend of March, on Friday evening 7,100-7,200 kHz was full of broadcasters as usual - but as the new seasonal broadcasting schedule took effect on Saturday night the band cleared of all but a few. For the very first time our overseas friends could hear us on 40 meter phone without having to breach the wall of broadcasters! Over the past six months the situation has

continued to improve as more broadcasters have complied with the WRC-03 .

Nighttime operation above 7,200 kHz remains a challenge, but it's not an exaggeration to say that 40 meters is like a whole new band."

Sumner explained that moving hundreds of broadcast transmitters in dozens of countries out of a band didn't just happen: "It took years of patient effort by a global team of volunteers and ARRL professionals, working through the IARU, to overcome objections and marshal the necessary support. It was an expensive undertaking, and it never could have been accomplished without the voluntary contributions - above and beyond their basic dues - of thousands of ARRL members."

Even as we celebrate our reborn 40 meter band, Sumner said that we, as amateurs, must remember that it takes hard work just to hang onto what we have. "As much as we like to pursue new and improved ham bands, most of our effort must go toward frequency defense," he said. "Every day, new uses of the radio spectrum are being conceived. Each one competes for spectrum access with incumbent radio services, including ours. Not only must we defend our allocations against well-heeled backers of licensed services, we must also try to prevent the pollution of the radio spectrum by unlicensed devices. The fight goes on in Washington, Geneva and around the globe - and there's no end in sight."

Decisions for WRC-12 are being made now that will determine how many administrations - including the United States - will support a new secondary allocation to the Amateur Service at 500 kHz, and whether proposals for allocations to oceanographic radars will threaten some of our existing HF bands. "We are hard at work meeting these challenges, but we need your help," Sumner said, in asking for support for the ARRL Spectrum Defense Fund.

"Members' past response helped us to keep commercial satellites out of the 144 and 420 MHz bands, to gain access to frequencies around 5 MHz, and to win our court challenge of the FCC's flawed Broadband over Power Lines (BPL) rules. New challenges keep cropping up. Currently we are working to ensure that new short-range medical devices do not impact our ability to use our UHF and micro-

*(Continued on page 6)*

## NEW GUIDELINES

On Friday, September 25, the ARRL Board of Directors adopted [guidelines on the appropriate use of Amateur Radio](#) on behalf of commercial, non-profit and government entities, as well as recommendations for additional steps to be taken by the ARRL to educate radio amateurs and others on how to prepare and train for public service and emergency communications while complying with the current FCC Rules.

At its meeting in July 2009, the ARRL Board created an ad-hoc committee to study the issue and prepare suggested guidelines. The committee submitted its report to the ARRL Executive Committee, which reviewed and revised the document. After additional discussion among Board members by electronic mail and teleconference, the Executive Committee submitted the document to the Board for formal adoption.

Entitled *The Commercialization of Amateur Radio: The Rules, The Risks, The Issues*, the document offers guidelines to assist radio amateurs and anyone wishing to utilize the capabilities of Amateur Radio in understanding the FCC Rules that prohibit communications in which the amateur has a pecuniary interest, including communications on behalf of an employer. While the FCC Rules in this regard have not changed in many years, there has been increasing discussion of the issue as growing numbers of employers and non-amateur organizations recognize the value of Amateur Radio as an emergency communications resource and encourage their employees to obtain amateur licenses. Also included are guidelines for evaluating the appropriateness of Amateur Radio volunteers providing communications services to commercial enterprises and other entities for which other communications systems are available.

"The guidelines are not intended to be the last word on the subject, and surely will not be," observed ARRL First Vice President Kay Craigie, N3KN, and chair of the ad-hoc committee. "The report includes several recommendations for additional steps that the ARRL needs to take to help amateurs and the organizations we serve to better understand the Rules and to ensure that what we do to prepare to be of service in emergencies is consistent with the current Rules."

## SCHOOL ROUNDUP

The ARRL [School Club Roundup](#) is coming up in October - maybe you know a school club that could use some encouragement and guidance? If your school doesn't have a ham radio club, this would be a great opportunity to demonstrate ham radio. Now is the time to approach a teacher or administrator about it! If you do find a friendly ear, there's no need to put up a huge station - a 20-meter or 40-meter dipole in the clear will probably generate plenty of QSOs with a 100-watt radio. Limit the number of kids to a manageable group at any particular time so they all get a chance for some hands-on time - take sign-ups for specific afternoons or time periods? (The contest runs on weekdays from Oct 19-23.) Enlisting the help of a young contester to serve as instructor and coach would help. You could even see which afternoon's teams do the best and have a post-contest pizza party and woofing match! Make sure your score is posted to [3830](#) right away and other scores shared with the operators - timely feedback is very important. The rest of us can put the SCR on our to-do list for that week and spend some time making QSOs with the clubs. [source: ARRL]

## SPECTRUM ...

(Continued from page 5)

wave bands."

To help in the ARRL's ongoing mission to protect our valuable spectrum, please visit the Spectrum Defense area on the ARRL Web site

<<https://www.arrl.org/forms/fdefense/>>. You can also reach ARRL Chief Development Officer Mary Hobart, K1MMH, at 860-594-0397 or via e-mail <[k1mmh@arrl.org](mailto:k1mmh@arrl.org)>. Special gifts are being offered for contributions, including a mug and pin. More details on thank you gifts can be found on the donation form for the Spectrum Defense Fund.

Download PDF of **HazMat 2008 book**

[http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/erg2008\\_eng.pdf](http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/erg2008_eng.pdf)

Corrections

<http://www.phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/erg2008errata.pdf>

## SPUD GUN FUN

By Dave Benham, K8TRF and Joe Cuchetti, K8JRE

Joe K8JRE, Jim K8JV and Dave K8TRF each built a spud gun for launching wire antennas into trees based on the article in the March, 2009, issue of QST. You've probably seen one of them at a breakfast gathering, HPARC meeting or Field Day. Ever since each of us made our first deployment, we've wondered how high the thing will shoot the projectile - i.e., how big a tree can we get it over and how much pressure does it take to do so? Joe and I remembered some of our high school physics, in particular the formula  $d=1/2 at^2$  (alternate is  $s=1/2 gt^2$ ) and figured we could pretty easily do some "live" experimenting to figure it out.

So after one of our Friday breakfasts, Joe and I decided to go to an open field with his newly built spud gun (with electrically switched valve) and his bicycle pump to take some measurements. I brought my digital stopwatch and drove over to Joe's house. From there we went together to a park that Joe had eyed for the occasion - Poppleton Park, east of Woodward on the north side of Birmingham. This park is surrounded by a pretty upscale neighborhood and I was concerned about someone calling the police. Fortunately, we were dressed better than the average swap-attende.

In any case, we walked to the center of the largest open spot in the park. We saw a flock of Canada geese grazing in the park and a groundhog rooting around. We were tempted to lower our sights, but we stuck to our plan - shoot the thing as straight up in the air as possible and time the overall flight from the instant Joe hit the "fire" button to the instant the projectile hit the ground.

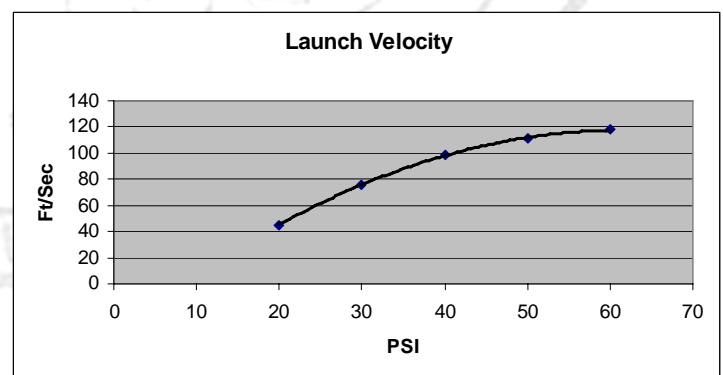
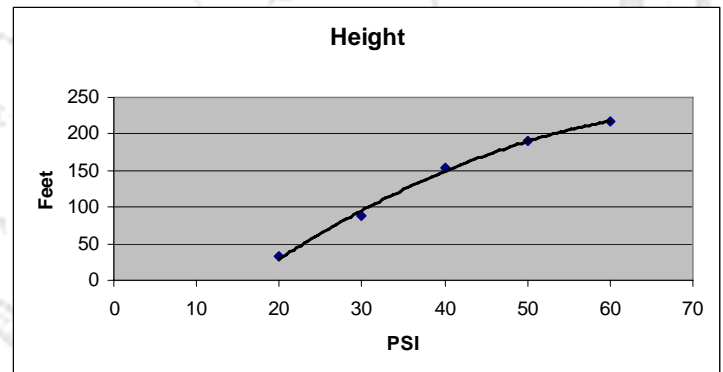
Our formula above (which we were proud to have remembered correctly) is  $d =$  the height (the unknown we were solving for),  $a =$  the acceleration for gravity (a known constant in our case,  $32 \text{ ft/sec}^2$ ) and  $t =$  time (which is what we were to measure). We needed to divide our total measured time by two because the formula was for a freefall from a height to ground and that was actually only half of our "flight". The time to the apex of the flight and the return to the origin are theoretically equal.

We planned on using 4 different PSI settings - 20, 30, 40, and 50; then we threw in a 60 at the last minute for

the heck of it. Joe had never pumped it up that high before which got his heart pumping for two reasons, physical exertion and fear of explosion. I'd pumped mine to 55 PSI at N8KV's on Field Day with no ill effects and we'd heard that the Goat Man (KGOAT) in Colorado had pumped his up to 100 PSI.

The unit Joe built has these glaring words preprinted on the PVC tank - "NOT FOR PRESSURE". But "Pressure" was not defined, which is what made us nervous. How high could we go? Damn the torpedoes, full speed ahead! In order to compensate for some of the reaction time error and PSI setting error, we did most of the trials twice for each PSI setting. Resultant times were averaged for each setting and the average used for the final calculation. Joe was huffing and puffing at the end and since we're both heart patients, we didn't want to overdo it. Birmingham Eccentric headlines: "Two Terrorist Hams Found Dead in Poppleton Park".

You can see the graphical results of our experiment below:



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## SPUD GUN CONT.

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And the table below shows our data:

PSI	Time (sec)	d (ft)	v (ft/sec)	v (mph)
20	2.82	32	45.3	31
30	4.69	88.8	75.6	52
40	6.17	152.8	99.1	68
50	6.9	191.3	110.9	76
60	7.34	216.5	118	80

### What we learned from our experiment was:

- Using over 60PSI is not going to yield much more height under our conditions.
- The chamber did not explode at 60 PSI!
- Given the launch velocity, "v" (which physics formulas allowed us to calculate), and using the applets at the <http://hyperphysics.phy-astr.gsu.edu/Hbase/traj.html> website, along with some Boy Scout ingenuity, we can calculate the PSI and angle needed to clear a particular tree or part of a tree.
- Do not wear camo when using the spud gun.

### Known error components and caveats were:

- The ability to repeatedly pump the bicycle pump to the desired value.
- Stopwatch reaction times both at the start and the end of each flight.
- We shot the projectile without the retrieval fishing line attached.
- Different projectile weights would give different performance results.
- Different valves (manual vs. electric) might yield different results.
- Wind resistance.
- Spud gun may not have been held truly vertical.

Given the decent graph our results yielded, we weren't real concerned about any of these possible error influences on the results. The projectile weight might matter (we used a 1 oz. fishing weight inside ours) in other cases. The fact that we didn't attach the retrieval fishing line might lower the performance slightly. The difference between the electric valve and the manual valve may matter – the electric valve costs more and is more difficult to build up, but it offers "instant" release that the manual valve may not. The firing of the manual valve may also jerk the

spud gun away from its intended aim.

If I can talk these guys into it, we might do a real "D.O.E." design of experiment - automotive style - to answer more questions and determine the key variables in performance. Stay tuned!

**Final Warning: These things can be dangerous and could seriously harm someone or someone's property. Don't take these devices too lightly. Treat them with respect as you would a weapon.**

last minute addendum

Joe and I did a real DOE Thursday. Bottom line, and this is important for those building/using one of these, is that when the projectile is launched with the fish line (the way it's actually used for ham purposes), there is over a 40% reduction in height performance at 60PSI.

We got 214 ft high with no line and only 128 ft high with line. It may be worth experimenting with different types of reels, different lines, etc. Lighter line would have less drag but is more likely to break when pulling the antenna support line through the trees after the launch. We used a closed face spin casting reel with 15 lb. line.

There also appears to be a significant difference between the manual valve and the electric valve (electric being better) but this difference may be due to difference size plumbing fittings used. This needs to be studied. Preliminarily, I would recommend 1" diameter pipe, not ¾" diameter.





**A R O U N D T O W N**

17 Oct 2009 **Lakeshore Super Swap** Holland ARC

[http://www.hollandarc.org/?page\\_id=22](http://www.hollandarc.org/?page_id=22)

Talk-In: 147.06+ (PL 94.8)

Contact: [Tom Bosscher, K8TB](#)

West Ottawa High School (South Campus)  
3600 152nd Avenue  
Holland, MI

18 Oct 2009 **Kalamazoo ARC & SW Michigan AR Team**

<http://www.KalamazooHamFest.com>

Talk-In: 147.040 (PL 94.8) - K8KZO Repeater

Contact: [Ruth Bates-Hill, WB8VEV](#)

Kalamazoo County Expo Center & Fairgrounds  
2900 Lake Street  
Kalamazoo, MI

25 Oct 2009 **24th Annual USECA Hamfest**

<http://www.usecaarc.com> Talk-In: 147.180 (PL 100)

Contact: [Chuck Perushek, N8ZA](#)

American Polish Century Club  
33204 Maple Lane Drive  
Sterling Heights, MI

6 Dec 2009 **L'Anse Creuse Amateur Radio Club**

<http://www.n8lc.org> Talk-In: 147.08 DOWN (PL 100)

Contact: [Marty Folz, K8HVI](#)

L'Anse Creuse High School  
38495 L'Anse Creuse Street  
Mount Clemens (Harrison Twp), MI

**17 Jan 2009 44th Annual Hamfest**

**Hazel Park Amateur Radio Club**

<http://www.hparc.org>

Talk-In: 146.640 (PL 100)

Contact: [Mike Van Buren, WD8S](#)

**PO Box 368**

**Hazel Park, MI 48030**

**Phone: 248-399-7970 Email: [wd8s@comcast.net](mailto:wd8s@comcast.net)**

**Hazel Park High School**

**Hazel Park, MI**

**S E A S O N A L F L U S H O T**

Flu shots are now available at Oakland County Health Division offices:

**Pontiac:** 1200 N. Telegraph Rd., in the Oakland County Complex, Bldg. 34 East

**Walled Lake:** 1010 E. West Maple Rd. at Pontiac Trail

**Beginning on Tuesday, October 6, 2009**

**Southfield:** 27725 Greenfield Rd at Catalpa

or you can go to the Flu Clinic —

Pre-registration for the Oakland County Health Division 2009 - 2010 seasonal flu program has begun. The following locations, will provide **seasonal flu shots only:**

- Monday, October 5, 2009, **9 am – 3 pm**  
Southfield Pavilion, 26000 Evergreen Road, Southfield
- Wednesday, October 7, 2009, **10 am – 3 pm**  
William Costick Center, 28600 11 Mile Road, Farmington Hills
- Thursday, October 15, 2009, **10 am – 3 pm**  
Troy Community Center, 3179 Livernois, Troy

Oakland County residents are encouraged to pre-register online at [www.oakgov.com/health](http://www.oakgov.com/health). This pre-registration system will automatically assign you a date and location to receive vaccine based on your zip code. If you are unable to attend the assigned date or location, please select a location convenient to your needs.

We will also accept walk-in clients at any of these flu shot clinics.

Flu shots are now available for the **newly reduced price of \$10.00.**

Here's a link to a story about a balloon flight some hams in Alberta did recently, complete with HD video above 100,000 feet.

<http://bear.sbszoo.com/bear3-4/bear4.htm>

Dave K8TRF

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**2009 DATES**

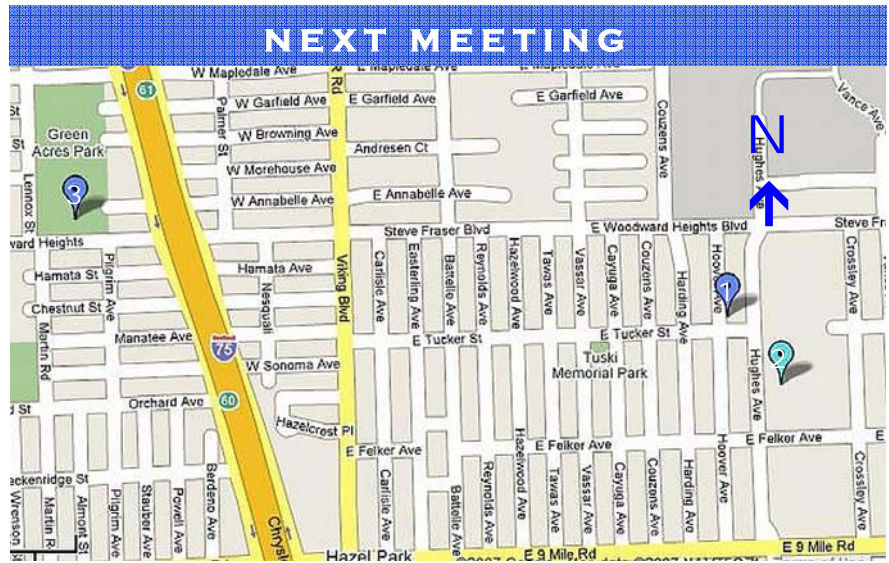
November 11  
December 9

**TIME**

Socializing @7:00 P.M.  
Meeting @7:30 P.M.

**PLACE**

Hoover Elementary  
23720 Hoover Ave.  
Hazel Park 48030



Locations: 1- Meeting 2- Swap 3- Picnic

We're on the Web  
[www.hparc.org](http://www.hparc.org)



Hazel Park Amateur Radio Club  
P.O. Box 368  
Hazel Park, MI 48030



Please check mailing label — is your membership about to expire?