

# RCA AMATEUR RADIO CLUB

MAY, 2009      MONTHLY NEWSLETTER      INDIANAPOLIS, IN

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE  
TUESDAY, MAY 12, 6:30 PM AT THE [G.T. SOUTH'S](#),  
5711 E. 71<sup>st</sup> STREET, INDIANAPOLIS, IN

## RCA ARC NEWS

**SUMMARY OF THE APRIL MEETING** – The April meeting had the largest turn out we have seen in a long time. It was good to see Jack Reynolds, AA9BO, Leroy Wignot, WA4OTD long time members, as well as Jon Powell, KC9GUM, Bill Mengel, N9AYD. We also **want to welcome a new ham and member.**

We went over the field day plans, the GOTA (Get On The Air station) will use the W9RCA call and any ham who was not been active for the last couple years can operate the stations for bonus points. We are trying to get as many club members as possible signed up to operate. We contacted Russ Johnson, N9RJ and he is interested, as is Phil Owens, WB9RXL and Mike Morone, KB9ZEB. Leroy Wignot, WA4OTD indicated he might be able to operate.

One of the main reasons for the GOTA station is to offer the opportunity for anyone to operate an amateur radio station under the control of a control operator. Their will be a control operator at the station, so if you know of anyone interested in ham radio this will give them a chance to operate and meet some of the hams from the Indianapolis area.

The Ethernet card in the EchoLink computer on the repeater was killed, probably by a nearby lightning strick. Dave, N9KT replaced the card and got it working again. We discussed option including using a 802.11 wireless link or an optical link. Jim Keeth, AF9A. though he knew of a fiber optic link we could get if it worked to try. Bob Begeman, W9KVK volunteered, to check into the availability of internet optical and 802.11 systems and 802.11.

Dave Jarvis, N9KZJ gave a run down on how the building of the USS Indianapolis station is proceeding and the trip to New Mexico to pick up the WW2 radios.

The W9IMS INDY 500 Special event station operation will start on Saturday, May 9<sup>th</sup> at the Mike Koss' Comm-Center located at 33<sup>rd</sup> and Gale Street. Everyone is welcome to stop by and visit to operate. Check with Jim Rinehart for further details. Our club's IC-756 Pro and amp are located at the station.

Dave, W9CGI got the call ZF2GC and confirmed is trip to the Caribbean is on.

**RCA ARC plans for the Dayton Hamvention are similar to what we have done past with a get together at noon both Friday and Saturday. This is on the northwest corner of the main arena, in the permanent seats near the Kenwood display (this is where the Cushcraft antenna display used to be). Grab some lunch and join us!**

**Our meter frequency is 144.43 MHz, no CTCSS tone.**

**Plan on joining us for dinner at the Old Hickory Bar-B-Que both Friday and Saturday evening. It is located at 4029 N. Main Street ( St. hiway 48) in Dayton. N Main runs northwest-southeast about a mile east of Hara arena.**

**CONGRATULATIONS** -- Bob Begeman, W9KVK, and Jim Rinehart, K9RU. Bob received his 50 year membership pin from ARRL and Jim received his 40 year ARRL membership pin from the ARRL!

**W9CGI HAS RECEIVED GRAND CAYMAN ISLAND LICENSE FOR HIS TRIP** – Dave finally received the license and with the call ZF2GC for his Grand Cayman Island trip tentatively planned for July 28<sup>th</sup> thru August 11<sup>th</sup>.

If anyone is interested in joining Dave on the trip, Dave reports there is a really GOOD deal for 3-4 people on a 3rd (top) floor ham shack/full kitchen/etc at the hotel and "Family" Air rate on US Airways might be available for the group. There is still time for you to get your own a license, it cost \$25 for a one year license and about \$10 more for import license for your ham radio gear. Another trip is being planned for fall 2009 or spring 2010. Contact Dave if you're interested. e-mail: [w9cgi.dave@gmail.com](mailto:w9cgi.dave@gmail.com)

**TO ALL INDIANA HAMS:** -- HR 2160, the "Amateur Radio Emergency Communications Enhancement Act introduced in the US House of Representatives. [See more details below.] If passed, the bill would raise the status of Amateur Radio across all emergency services and the FCC, and greatly help with impediments to "effective outdoor antennas and support structures at reasonable heights and dimensions for the purpose in residential areas". You can read more about it at the bottom of this email.

I'm asking all of you to take a minute right now and email your Representative and ask them to support or even co-sponsor the bill. Every single voice is important to get this bill passed. This URL makes it easy to write your Representative:  
<https://writerep.house.gov/writerep/welcome.shtml>

Thanks for your support, David, N9KT, ARRL Indiana SGL

**INDIANAPOLIS RADIO CLUB BUS TO DAYTON HAMVENTION** -- There are still a few seats left on the coach that the Indianapolis Radio Club has chartered to go to the 2009 Dayton Hamvention, on Saturday, May 16, 2009. This is always a fun trip, as well as an economical one! Cost is \$30 per seat. This does not include admission to the show. Point your browser to <http://indyradioclub.org/bustripdayton09.htm> for more information. Contact IRC Treasurer: Jay Willever. [K9LJW](mailto:K9LJW),

**INDIANAPOLIS VE TESTING SCHEDULE** -- Calling in advance to ensure testing availability is suggested but not mandatory. Walk-ins are accepted.

**SPONSOR:** Indianapolis Radio Club (W9JP)

**LOCATION:** Indianapolis Training Center (ITC), 2820 N. Meridian Street.

**TIME:** All testing starts at 9:00 AM

**CONTACTS:** Gale Wuollet (317-849-8449), <mailto:indy33windy@comcast.net> or Dovid Ofstein (317-908-5125) [doctoro57@yahoo.com](mailto:doctoro57@yahoo.com)

|                   |                                  |
|-------------------|----------------------------------|
| June 6, 2009      | liaison is Gale Wuollet (AA9WU)  |
| July 11, 2009     | <b>at the Indy Hamfest</b>       |
| August 8, 2009,   | liaison is Dovid Ofstein (N9APE) |
| September 5, 2009 | liaison is Gale Wuollet (AA9WU)  |
| October 3, 2009   | liaison is Gale Wuollet (AA9WU)  |
| November 7, 2009  | liaison is Dovid Ofstein (N9APE) |
| December 5, 2009  | liaison is Gale Wuollet (AA9WU)  |

## HAMFESTS & EVENTS

|             |  |
|-------------|--|
| May 8-24    | W9IMS Indy 500 Special Event Station Operation   |
| May 15-17   | Dayton Hamvention  |
| June 5-7    | USS Indianapolis, WW2IND Memorial Station Operation  |
| June 13-14  | ARRL VHF QSO Party   |
| June 20-21  | SMIRK Contest  |
| June 27-28  | ARRL Field Day   |
| July 11     | Indy Hamfest, Camp Sertoma <a href="http://www.indyhamfest.com">http://www.indyhamfest.com</a> |
| July 18 -19 | CQ VHF Contest   |
| July 24-26  | W9IMS Brickyard 400 Special Event Station Operation  |
| Aug 1       | Broadripple Hamfest  |
| Aug 28-30   | W9IMS MotoGP Special Event Station Operation   |
| Sept 11     | Indianapolis Radio Club 3 <sup>rd</sup> Hill Top OTA Event                                     |
| Sept 26     | Greenfield Hamfest No fees, no prizes, just a free flea market!                                |

## AMATEUR RADIO EMERGENCY COMMUNICATIONS ENHANCEMENT ACT OF 2009

On Wednesday, April 29, Representative Sheila Jackson-Lee (D-TX) introduced HR 2160 -- the "Amateur Radio Emergency Communications Enhancement Act of 2009" -- in the US House of Representatives. This bill, if passed, would "promote and encourage the valuable public service, disaster relief, and emergency communications provided on a volunteer basis by licensees of the Federal Communications Commission in the Amateur Radio Service, by undertaking a study of the uses of Amateur Radio for emergency and disaster relief communications, by identifying unnecessary or unreasonable impediments to the deployment of Amateur Radio emergency and disaster relief communications, and by making recommendations for relief of such unreasonable restrictions so as to expand the uses of Amateur Radio communications in Homeland Security planning and response." The bill has been referred to the Committee on Energy and Commerce.

If enacted into law, HR 2160, would instruct the Secretary of Homeland Security to undertake a study and report its findings to Congress within 180 days. The study would spell out uses and capabilities of Amateur Radio communications in emergencies and disaster relief. The study shall:

- \* Include recommendations for enhancements in the voluntary deployment of Amateur Radio licensees in disaster and emergency communications and disaster relief efforts.
- \* Include recommendations for improved integration of Amateur Radio operators in planning and in furtherance of the Department of Homeland Security initiatives.
- \* Identify unreasonable or unnecessary impediments to enhanced Amateur Radio communications -- such as the effects of private land use regulations on residential antenna installations -- and make recommendations regarding such impediments.
- \* Include an evaluation of Section 207 of the Telecommunications Act of 1996 (Public Law 104-104, 110 Stat 56 [1996]).
- \* Recommend whether Section 207 should be modified to prevent unreasonable private land use restrictions that impair the ability of amateurs to conduct, or prepare to conduct, emergency communications by means of effective outdoor antennas and support structures at reasonable heights and dimensions for the purpose in residential areas.

"We understand that Representative Jackson-Lee was very impressed with the radio amateurs she encountered on a visit to an Emergency Operations Center in Houston during Hurricane Ike last September," said ARRL Chief Executive Officer David Sumner, K1ZZ.

"We are grateful to her and to the five original co-sponsors for their support of Amateur Radio and the encouragement that their bill offers."

ARRL President Joel Harrison, W5ZN, concurred: "We are excited to have Representative Sheila Jackson-Lee introduce HR 2160. It is extremely encouraging to have the support of a number of original co-sponsors -- including several members of the House Homeland Security Committee -- who recognize the importance of Amateur Radio's long history of public service." --ARRL

## **FCC, INDIANAPOLIS POLICE DEPARTMENT ADDRESS UNLICENSED OPERATIONS**

In response to an investigation by the FCC, the Indianapolis Metropolitan Police Department (IMPD) has taken action to prevent further use of Amateur Radio frequencies by unlicensed officers. Any Amateur Radio equipment in the cruisers of unlicensed officers was removed by order of IMPD Chief of Police Michael T. Spears.

According to the FCC, some IMPD officers were using the radios to supplement their normal communications channels, including using amateur frequencies for tactical communications during drug surveillance. As part of its inquiry, the FCC reminded the IMPD of the large number of tactical channels available on a secondary basis to police departments from the public safety pool of frequency allocations.

"We are pleased that IMPD has put a stop to this unlicensed activity," said ARRL Regulatory Information Manager Dan Henderson, N1ND. "The investigation by the FCC, coupled with the expedient cooperation and correction of the problem by the IMPD, eliminates a situation that had raised serious concerns in the amateur community."

On April 23, a VE team comprised of VEs from the MARC club in Johnson county and the Indianapolis Radio Club tested 21 IMPD officers in two sessions. Fourteen of them passed and are now new hams! Congratulations to both those officers who earned their licenses and the VEs that volunteered for the sessions.

The FCC stated they would monitor the situation and follow-up appropriately if needed .-- IRC

## **AGENDA FOR WRC-11 POSES OPPORTUNITY AND CHALLENGES FOR HAMS**

The next World Radio Communication Conference (WRC-11) is scheduled for fall 2011. These periodic conferences of the Member States of the International Telecommunication Union (ITU) consider allocations to the various radio services -- including the Amateur Radio Service -- and evaluate what new technologies and applications should be addressed by future conferences.

The agenda for WRC-11, developed by the delegates at the last WRC in Geneva in 2007 (WRC-07), was formally adopted by the ITU Council in 2008. There are 25 agenda items addressing potential new or revised spectrum allocations to existing services. Of most interest to amateurs is agenda item 1.23, "to consider an allocation of about 15 kHz in parts of the band 415-526.5 kHz to the amateur service on a secondary basis, taking into account the need to protect existing services."

"This agenda item is the highest item on my long term priority list," said ARRL Technical

Relations Manager Brennan Price, N4QX. "We are fortunate that WRC-11 presents an opportunity for a new secondary allocation in the medium waves. While the outcome in 2011 is far from certain, our experience in other bands -- most notably 30 meters -- indicates Amateur Radio's compatibility with certain other services as a secondary user."

The agenda for WRC-11 does not pose any threats to Amateur Radio as clear or as overt as those faced in prior years. Price and ARRL Technical Relations Specialist Jon Siverling, WB3ERA, are monitoring developments on a number of other agenda items that could affect Amateur Radio if they take unanticipated turns. –ARRL Letter

## A CYBER-ATTACK ON AN AMERICAN CITY

Just after midnight on Thursday, April 9, unidentified attackers climbed down four manholes serving the Northern California city of Morgan Hill and [cut eight fiber cables](#) in what appears to have been an organized attack on the electronic infrastructure of an American city. Its implications, though startling, have gone almost un-reported.

That attack demonstrated a severe fault in American infrastructure: its centralization. The city of Morgan Hill and parts of three counties lost 911 service, cellular mobile telephone communications, land-line telephone, DSL internet and private networks, central station fire and burglar alarms, ATMs, credit card terminals, and monitoring of critical utilities. In addition, resources that should *not* have failed, like the local hospital's *internal* computer network, proved to be dependent on external resources, leaving the hospital with a "paper system" for the day.

Realizing that they'd need more two-way radio, authorities dispatched police to [wake up the emergency coordinator](#) of the regional ham radio club, and escort him to the community hospital with his equipment. Area hams dispatched ambulances and doctors, arranged for essential supplies, and relayed emergency communications out of the area to those with working telephones.

That the hospital's local network failed is evidence of over-dependence on centralized services. The development of the internet's communications protocols was sponsored by the U.S. Department of Defense, and they were designed to survive large failures. But it still takes local engineering skill to implement robust networking services. Most companies stop when something works, not considering whether or how it will work in an emergency.

Institutional networks, even those of emergency services providers, are rarely tested for operation while disconnected from the outside world. Many such networks depend on outside services to match host names to network addresses, and thus stop operating the moment they are disconnected from the internet. Even when the internal network stays up, email is often hosted on some outside service, and thus becomes unavailable. Programs that depend on an internet connection for license verification will fail, and this feature is often found in server software. Commercial VoIP telephone systems will stay up for internal use if properly engineered to be independent of outside resources, but consumer VoIP equipment will fail.

Communications will be a problem during any emergency. Two-way radios have, to a great extent, been replaced by cellular "walkie-talkie" services that can *not* be relied upon to work during an infrastructure failure. *Real* two-way radios, stand-alone pager systems, and radio repeaters that enable regional communications are still available to the

governments and businesses that endure the expense of planning, acquiring, maintaining, and testing them. Corporate disaster planners should look into such facilities. Municipalities, regardless of their size, should not consider abandoning such resources in favor of the less-robust cellular services.

A big plus for Morgan Hill was that emergency services had a well-practiced partnership with the local hams. Since you can never budget for all of the communications technicians you'll need in an emergency, using these volunteers is a must for any civil authority. They come with their own equipment, they run their own emergency drills and thus are ready to serve, and they are tinkerers able to improvise the communications system needed to meet a particular emergency.

No disaster system can be expected to work without regular testing, not only of the physical infrastructure provided for an emergency but of the *people* who are expected to use it, in its disaster mode. Such testing takes much time and work, but it's much better to work such things out as a result of testing than to meet them during a real disaster.

We should also consider whether it might be necessary to harden some of the local infrastructure of our communities. Surprisingly, manholes don't usually have locks. They rely on the weight of the cover and general revulsion to keep people out. Utility poles buried cables are similarly accessible. Much of our infrastructure isn't protected by anything so tough as a manhole cover. Underground cables are easily accessible in surface posts and "tombstones", boxes often located in residential neighborhoods. These can be wrecked with a screwdriver.

Will there be another Morgan Hill? Definitely. The most surprising news from Morgan Hill is that they survived reasonably unscathed. That they did so is a result of emergency planning in place for California's four seasons: fire, floods, earthquakes, and riots.

The next time it might happen to a denser community that won't be so astonishingly able to sustain the trouble using its two-way radios and hams. The next time, it might be connected with some other event, be it crime or terrorism. Company and government officers take notice: the only way you'll fare well is if you start planning *now*. -- Bruce Perens, The San Jose Mercury News *and* The Daily Tech

## TINY SATELLITES PLANNED

Writing from the US Naval Academy Satellite Development Lab, Bob, WB4APR reported on new satellites with the same APRS packet relay as PCSAT and the ISS that are in the works.

Bob said their design will use the new Byonics all-on-a-board Packet TNC/Radio/Telemetry system. This makes it possible to build a packet satellite out of a single 3.4" square board and 5 NiCd batteries and that is all you need for a tiny APRS satellite.

Bob said, "We are ordering a bunch of them on the APRS Space Channel of 145.825 MHz and hope to encourage other schools and universities to consider including one of these packet transponders in their missions. If we can get up to a dozen of these in space, we will have almost global coverage 24 hours a day from anywhere on the planet!"

Also, check out William's, PE1RAH design for an ultra-small linear satellite Mode-UV transponder with 23dBm PEP output on 2 meters. He made a video which can be seen at:

## ACTING FCC CHAIRMAN MICHAEL COPPS SEEKS MONEY FOR 'NEXT' DTV TRANSITION

Acting FCC Chairman Michael Copps has asked Congress for \$1 million for DTV-transition related expenditures in fiscal year 2010, which begins Oct. 1, 2009, or four months after the June 12 switch-over date.

Copps said the \$1 million in DTV money was not only to deal with the remnants of the full-power DTV transition, but to prepare for the "next" transition: low-power TV. "Even after the transition for full-power stations takes place on June 12, 2009," he told Congress, "We anticipate an ongoing need for DTV efforts, not only to deal with the aftermath of the full-power transition but to begin addressing the "next" DTV transition—the transition of the thousands of low-power and TV translator stations across the country that are still broadcasting in analog."

Copps is asking for \$355,794,000 in all, an increase of \$6 million over the FCC's FY2009. \$15 million will be used to upgrade its IT systems, including key word searches of comments in ongoing proceedings, that would make it easier for the public to track and participate in the FCC's decision making process.

Copps also said the commission needed to modernize its bureau databases, saying it was tough for the public to navigate them. He said the commission would move toward a "more unified licensing system.

He also wants to increase the FCC's payroll by a million dollars to attract engineers, economists and other staffers, citing retirements and other personnel losses. —ARRL Letter

## SHORTS

**FORUM SCHEDULE ANNOUNCED FOR 2009 DAYTON HAMVENTION** -- One of the many highlights at Dayton Hamvention is the myriad of educational and fun forums that take place the entire weekend at Hara Arena. The Dayton Amateur Radio Association has coordinated 45 unique programs that encompass nearly 80 hours of programs and activities for the thousands of people expected to attend these programs. Hamvention, the largest event of its kind, will be May 15-17 at Hara Arena in Dayton, Ohio. Please keep in mind that the schedule may change before Hamvention. For more information on forums at the 2009 Dayton Hamvention, please visit the Dayton Hamvention Web site <http://hamvention.org/forums.php>.

**FCC TO HOLD NATIONAL DIGITAL-TV TEST BEFORE SWITCH** --The FCC wants broadcasters to suspend regular programming and instead show a public-service ad about the digital transition for three five-minute periods on May 21<sup>st</sup> at 7:30 a.m., 12:30 p.m. and 6:30 p.m as part of an effort to make sure Americans are ready for the switch. The test wouldn't apply to stations which have already switched to digital-only.

**GOOGLE CELEBRATES BIRTHDAY OF SAMUEL F. B. MORSE** -- to honor the 218th birthday of Samuel F. B. Morse April 27 "Google" was spelled out using Morse the code symbols on their home page. Morse, a native of Charlestown, Massachusetts, conceived the basic idea of an electromagnetic telegraph in 1832. A successful

demonstration in 1936 between Washington to Baltimore of a working telegraph system where Morse send the historic message "What hath God wrought?" using American Morse code developed by Alfred Vail.

**FCC PRODDER BIRD ORGANIZATIONS SEEK TO REGULATE TOWERS** -- the FCC has issued a Public Notice dated April 29, 2009, asking for comments regarding new rules to protect birds from towers. DA 09-904 can be located at: [http://hraunfoss.fcc.gov/edocs\\_public/A-09-904A1.pdf](http://hraunfoss.fcc.gov/edocs_public/A-09-904A1.pdf)

1. Amend the Commission's regulations that implement NEPA
2. Prepare a programmatic environmental impact statement addressing the environmental consequences of its Antenna Structure Registration ("ASR") program on migratory birds, their habitats, and the environment
3. Promulgate rules to clarify the roles, responsibilities and obligations of the Commission, applicants, and non-federal representatives in complying with the ESA
4. Consult with the U.S. Fish and Wildlife Service on the ASR program regarding all effects of towers and antenna structures on endangered and threatened species; and
5. Complete the proposed rulemaking in the Migratory Birds Proceeding to adopt measures to reduce migratory bird deaths in compliance with the MBTA

**CLUB DISCOUNT FOR NEW AND RENEWAL OF ARRL MEMBERSHIPS** – The RCA ARC does offer a discount for ARRL membership made through the club. Contact Jim Rinehart, K9RU for more information.

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