



THE COMMUNICATOR

Newsletter of the TAMAMI AMATEUR RADIO CLUB

Incorporated 30 November 1984 – Venice, Florida
Mailing Address: 1419 E. Manasota Beach Rd., Englewood, FL 34223-6341
Web Site -- <http://tamamiarc.tripod.com>
W4AC Repeaters – 146.805 MHz(-), 444.100(+) both w/100 Hz PL



-- FEBRUARY 2006 --

-- PRESIDENT'S MESSAGE --

The weather for the Fort Myers Hamfest was ideal—temperature in the low 80s—and I enjoyed talking to the sellers and the handful of other TARC members and EARS members who made the trip. The highlight of the day for me was the satellite demonstration in the parking lot by a gentleman with a 2-meter rig strapped around his neck and a hand-held antenna.

I'm still getting used to having hamfest season starting in January! Back in northern Pennsylvania, the first big event for me after the Dayton Hamvention was Rochester in May, and then things wound down in the fall with Elmira and Syracuse. I was amazed to see some of the same flea market vendors down here that I used to see up in New York. I guess they follow the Snowbirds. The TARC-sponsored bus trip to Orlando should be a blast. Hope you've gotten your tickets by the time you read this.

Peter Pesa-N4RD recently demonstrated to Bob Avrutik-N1RA and me the remote access HF transceiver system Stew Haag-W4MO has set up. It's really impressive to control a remote Kenwood 480 via a computer mouse and to hear all the band activity. Reception on Stew's modest antenna was excellent and with very little noise. Once the HF antenna and this remote station are operable from the repeater site, the DX should really roll in. A big Thank You to Stew and the other TARC members who are assisting in this project.

VY 73 de Konrad-WA3RRS

-- 2006 TARC DUES ARE NOW DUE --

Here's the penultimate reminder that your 2006 TARC dues are now due and payable. Under the By-laws ratified at our 08 December meeting, all dues must be paid before 31 March 2006 or you will be deleted from the TARC Membership Roster. Dues are still just \$15 per year, payable (to "TARC") at our meetings or via mail to:

Donald Gray – WD7A
761 Mangrove Road
Venice, FL 34293

We hope you value your TARC membership as much as the TARC values you.

-- FEBRUARY MEETING --

Our next TARC meeting will be at 7:00 PM on 09 February 2006 in the Community Room of The Gulf Coast Community Foundation of Venice, 601 South Tamiami Trail (Business US 41), across from the Venice Regional Health Center. After the business meeting, Jon Hamlet-W4ZW will reflect upon and relate his "Experiences Doing Business and Operating Ham Radio in Russia." This can prove to be both an informative and light-hearted presentation, so come on out and enjoy the evening.

-- HOW MUCH DX IN ONE YEAR? --

Over the past 20 years, Joe Reisert-W1JR has been trying to work every available DXCC entity, starting from scratch each year. Some years he would try this feat using special modes such as CW, Digital or QRP. Also, he did not use DX nets or schedules and he wasn't always able to be at the radio and he didn't stay up late or operate at odd hours. So, how did he do?

In a typical year, he averaged about 280 entities worked. His best year was 2000 when he worked 293 of the 299 entities that were active that year.

2004 was not a good year as he worked only 273 entities while missing about 12 entities. In spite of the decline in sunspots, during 2005 he managed to work 272, of which 250 were worked on CW. Reportedly, there was activity from 284 entities during 2005.

So, if you're interested, there is a lot of DX out there waiting to be worked. Wait until the remote HF rig is up and running—a lot of wannabe DXers just might get bitten by the bug.

(From "2005 DXCC Countries Worked," Joe Reisert-W1JR, *The Weekly DX*, 09 January 2006)

-- QUOTE OF NOTE --

"I hope we have once again reminded people that man is not free unless government is limited. There's a clear cause and effect here that is as neat and predictable as a law of physics: as government expands, liberty contracts." – Ronald Reagan, U.S. President, Farewell Address, 11 January 1989

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TAMIAMI AMATEUR RADIO CLUB

Minutes of the Meeting

12 January 2006

President Konrad Owens-WA3RRS called the meeting to order at 7:09 PM and led the pledge of allegiance. West Central Florida Section Manager Dee Turner-N4GD, Jack Post-N0ERP of Venice, Jack Garneau-KB1CSS of North Port and Garry Eelman of Nokomis were welcomed as guests, and introductions were made all around.

MINUTES – Croft Taylor-VE3CT moved that the minutes of the 08 December 2005 meeting be accepted as published in the January 2006 issue of *The Communicator*, seconded by Jon Hamlet-W4ZW, and passed.

CORRESPONDENCE – Secretary Jack Sproat-W4JS gave a brief overview of correspondence sent and received over the past month. This included a 14 December press release relative to our new repeater site which was sent to both the *Venice Gondolier* and the *Venice Herald-Tribune*, a 13 December letter transmitting a \$65 donation to the Venice Public Library, a 15 December thank you letter from the Library, a 15 December letter to Newport Offices acknowledging receipt of two keys for the repeater radio room, a 21 December letter from Alan Stock-AG3W reporting that he is now permanently up in Pittsburgh, a 30 December follow up letter to the SERC regarding return of our repeater equipment from the CCC site, and a 03 January letter from Bob Preston-N4CTC transmitting his 2006 dues with the observation that he cannot find a sausage benedict in Denver to compare with Mel's or Peach's.

TREASURER'S REPORT – Treasurer Don Gray-WD7A reported that the 08 December starting balance was \$6196.65. Receipts were \$10.50 from the December 50/50 drawing, \$198.50 from renewed dues, \$15.00 for new member Bill Salmon-WA2EIL, and \$65 from VE Team for Library donation, totaling \$289.00. Expenses were \$637 for Christmas Party, \$600 for one-year tower lease, \$65 for donation to Friends of Venice Library, and \$5.48 for newsletter printing, totaling \$1307.48. The 12 January ending balance is \$5178.17. Charlie Covell-W4DB moved acceptance of the report, seconded by Peter Pesa-N4RD, and passed.

COMMITTEE REPORTS

SUNSHINE – Matt Klapp-W2EQV reported that both get well and birthday cards had been sent to Frank Lester-W4AMJ due to his recent hospitalization and pending 99th birthday.

VE TESTING – Jack-W4JS commented there should be at least two candidates at the 14 January session.

REPEATER/TECHNICAL – Stew Haag-W4MO reported that new 7/8" heliax has been installed to the 2-meter antenna, however, the 440 MHz antenna is presently connected to old 1/2" heliax. He expects to purchase sufficient 7/8" heliax at the Orlando Ham-cation. A Bushcom all band HF antenna has also been installed with the objective of installing a remotely controlled HF transceiver at the site. That installation will require a high speed Internet connection, however, Englewood On Line (EWOL) has a WiFi transceiver at the site. Stew moved that the TARC enter into a contract with EWOL for WiFi service at a cost of \$40/month; seconded by Jon Hamlet-W4ZW, and passed.

Jon-W4ZW reported on an exchange of e-mail with Ron Wetjen-WD4AHZ, trustee of the SERC repeater, regarding return of TARC equipment from the CCC site. Wetjen claims no knowledge of the two letters sent by TARC to SERC requesting return of the equipment. Jon will continue, using all means possible, to retrieve our equipment from SERC.

PACKET/GATEWAY – Bob-N1RA reported that he has one computer operating a BBS from his home on 145.610 MHz. The second computer, which will provide Internet access via packet, is ready for pick up over on the east coast. The system should be ready for a trial run within the next two weeks.

CLUB PROPERTY – Charlie-W4DB reported that Dick-KU4HA and Karen Campbell-KF4PEX had donated three sections of Rohn 25 with a hinged baseplate and a MFJ-1278B TNC to our club. A thank you and tax credit letter will be sent to the Campbells when fair value of the items is determined.

PUBLICITY/MEMBERSHIP – Don-WD7A passed around copies of the proposed TARC brochure and advised that he had received bids of \$365 and \$410 for printing 1000 copies, however, he still had one more bid to receive. Peter-N4RD moved that Don give the work to the lowest of the three bidders, seconded by Bob-N1RA, and passed.

EMERGENCY COORDINATOR – Peter-N4RD reported that the DARN exercise held 09 January, which utilized our W4AC Repeater, was considered a success. DARN will provide TARC with a standby generator in the future.

NET OPERATIONS – Konrad-WA3RRS reminded all of our two 2-meter weekly nets, as well as the two daily Snowbird nets and our Tuesday and Friday breakfasts.

LIAISON TO EARS – No Englewood ARS members were present, however, Konrad stated that he planned to attend the 19 January EARS meeting.

See **MINUTES, page 5**

CURRENT/PENDING DX ACTIVITY & PROPAGATION FORECASTS

CURRENT and/or SCHEDULED DX ACTIVITY										
COUNTRY – CALL SIGN	ACTIVITY PERIOD	BEAR-ING	HF BANDS and BEST OPENING TIMES							
			80	40	30	20	17	15	12	10
Ascension Is – ZD8I	Now to March	108	23-08	21-09	19-00	14-22	15-20	16-20	16-20	NO
Nepal – 9N7EF	Now to March	13	23-01	22-02	13-14	14-17	NO	NO	NO	NO
Jan Mayen – JX9NOA	No Reports Yet	21	23-12	09-15	13-18	14-17	NO	NO	NO	NO
Liberia – EL2PM	Now to May	92	23-08	21-09	19-00	14-22	16-19	16-19	NO	NO
Gabon – TR8FC	Now to May	88	23-06	22-07	20-00	14-22	15-20	15-20	1800	NO
West Malaysia - 9M2/PA0RRS	Now to 08 March	352	1200	11-13	13-14	15-19	17-19	17-19	NO	NO
Cambodia – XU7ADI	Now to 06 Mar	349	11-12	10-13	13-14	15-18	15-18	16-17	NO	NO
Chad – TT8PK	Now to 28 Feb	73	23-06	21-07	19-00	14-21	16-19	16-19	NO	NO
Marquesas Is – FO???	Now to 18 Feb	245	03-13	01-13	15-17	16-00	16-22	17-21	17-21	19-21
Australis Is – FO???	01 – 14 February	239	04-12	03-14	13-16	16-00	17-23	18-21	18-21	20-21
Crozet Is – FT5WK	03 Feb - March	131	00-02	23-03	03-04	05-07	NO	NO	NO	NO
Senegal – 6W/G4WFQ	04 – 17 February	87	22-08	20-10	16-00	14-21	15-20	15-20	NO	NO
Peter I Is – 3Y0X	07 – 21 February	183	02-10	00-11	00-06	20-00	23-01	NO	NO	NO
South Cook Is – ZK1???	16 – 24 February	246	05-12	04-13	02-14	17-00	18-22	19-22	19-22	2100
Ogasawara Is – JD1???	16 Feb – 08 Mar	317	08-12	07-13	08-15	21-00	22-23	2200	NO	NO
British Virgin Is – VP2V??	23 Feb – 01 Mar	114	22-12	12-01	13-00	16-21	17-19	NO	NO	NO
Rotuma Is – 3D2???	01 – 10 March	263	06-13	05-13	12-14	19-00	00-01	19-22	2030	NO

Updated 28 January 2006, based on 25 January 2006 *QRZ DX*, 16 January 2006 *The Weekly DX*, and *DX Alert Issue 601*

Note: **Time in bold** = Best Band(s) for opening; ??? = Call Sign not yet known; ++ = Phone Only; ** = CW Only; NO = No Opening forecast.
Long Path bearings and opening times are underlined. All forecasts are calculated using *W6ELProp V.1.03* propagation software, available at <http://www/qs1.net/w6elprop/> by Sheldon C. Shallon-W6EL. Solar Flux and K-index vary in accordance with NOAA 27-day forecast.

-- JANUARY SOLAR ACTIVITY --

During January, the Solar Flux ranged from 77 up to 94, with a mean value of 83.7 (vs. 102.5 for January 2005 and 114.1 for January 2004). The A-index was ≤ 10 on 27 days.

While there were days when no sunspots were visible, the absence of geomagnetic disturbances made for good propagation during the month.

-- FEBRUARY PROPAGATION --

During February, solar activity is expected to be at very low to low levels. No greater than 10 MeV proton events are expected.

The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at high levels on 25 January - 01 February.

The geomagnetic field is expected to range from quiet to minor storm levels. Active to minor storm periods are possible on 19-20 February due to effects from recurrent coronal hold wind streams. Otherwise, expect quiet to unsettled conditions. The Solar Flux should range from 75 to 85 during February.

(From *NOAA Weekly Highlights and Forecasts, 24 January 2006* and *NOAA 27-day Space Weather Outlook Table, 24 January 2006*)

During daylight hours, optimum DX propagation is expected on 20 meters. While worldwide openings can occur, there will often be fading on the signals. Conditions on 17 and 15 meters may also be good, but usually for less distance than during peak solar-cycle years. With increasing hours of daylight, the HF bands will be open for longer periods. The 12 and 10-meter bands may open occasionally on the north-south paths.

During early evening hours and as late as midnight, openings should be available from 15 meters down to 160 meters. Good DX openings are also forecast for 30 to 160 meters from midnight through sunrise.

Above Normal conditions should occur 1-2, 5-20, 24-26 and 28 February; *High Normal* conditions should occur 3 and 21-23 February.

From "Propagation," Tomas Hood-NW7US, February 2006 *CQ*)

-- PETER I UPDATE --

The DX Magazine's 2005 Most Wanted Survey shows Peter I Island ranking #4 worldwide and #8 in North America. Obviously, the bands will be VERY crowded with callers when the 3Y0X DXpedition fires up around 07 February. This is one of the most expensive DXpeditions, costing about \$500K. With an anticipated 100,000 QSOs, that's still \$5 per QSO.

All the equipment is aboard the vessel DAP Mares, which is now in the South Shetland Islands. Food-stuffs are aboard or being purchased in Punta Arenas, Chile. The 22 team members will rendezvous with each other and their equipment on or about 02 February at the Chilean Antarctic base in the South Shetlands and begin the four-day voyage to Peter I. While en route, the team will operate as XR9A.

A visit to the web site, <http://www.peterone.com>, is very informative, with streaming video, photos of team members, general data on Peter I, etc. Of note, "more people have traveled in outer space than have set foot on Peter I."

Work it if you can!!

(From *Peter I Press Release #2006-5*, 10 January 2006)

CONTESTS & ACTIVITIES

Contest/Special Event	Begin-End Times/Dates	Bands/Modes	QSO With	Exchange
North American Sprint	0000Z 05 Feb 0400Z 05 Feb	80, 40 & 20 Meters Phone Only	Anyone, Anywhere	Both calls, Serial No., Name, QTH
Ten-Ten International Winter Phone QSO Party	0001Z 04 Feb 2359Z 05 Feb	10 Meters Only Phone Only	Anyone, Anywhere	Name, QTH, 10-10 # if member
XE (Mexican) International RTTY Contest	1800Z 04 Feb 1759Z 05 Feb	80 – 10 Meters RTTY Only	Anyone, Anywhere	R/S/T + Serial No.
Spartan Sprint	0200Z 07 Feb 0400Z 07 Feb	80 – 10 Meters CW Only	Anyone, Anywhere (Held 1 st Monday of each month)	R/S/T, QTH and output power
North American Sprint	0000Z 12 Feb 0400Z 12 Feb	80, 40 & 20 Meters CW Only	Anyone, Anywhere	Both calls, Serial No., Name, QTH
CQWW RTTY WPX Contest	0000Z 11 Feb 2400Z 12 Feb	80 – 10 Meters RTTY Only	Anyone, Anywhere	R/S/T + Serial No.
Dutch PACC Contest	1200Z 11 Feb 1200Z 12 Feb	160 – 10 Meters Phone and CW	Dutch Stations	R/S/(T) + Serial No.
ARRL International DX Contest	0000Z 18 Feb 2400Z 19 Feb	160 - 10 Meters CW Only	DXCC Entities	R/S/T + State
CQWW 160 Meter SSB Contest	0000Z 25 Feb 2400Z 26 Feb	160 Meters Only Phone Only	Anyone, Anywhere	R/S + State
UBA (Belgian) Contest	1300Z 25 Feb 1300Z 26 Feb	80 – 10 Meters CW Only	Belgian and European Union Countries	R/S/T + Serial No.
REF French Contest	0600Z 25 Feb 1800Z 26 Feb	80 – 10 Meters Phone Only	Stations in France and French Territories	R/S + Serial No.
North American QSO Party	1800Z 25 Feb 0600Z 26 Feb	80 – 10 Meters RTTY Only	North American DXCC Entities	Name + QTH

From February 2006 issues of *QST* and *WorldRadio*

-- REGIONAL HAMFESTS --

- 4-5 Feb Tropical Hamboree, Sunshine Hall, Tamiami Park, 11201 SW 24th St., Miami. TI: 146.730 (PL 71.9), Info: Robert-KE4MCL, 786-306-5900
- 11-12 Feb Orlando Hamcation, Central Florida Fairgrounds, 4603 W. Colonial Dr., Orlando. TI: 146.760, Info: Cindy-KD4NLV, 407-273-1405
- 18 Feb Sebring Hamfest, AgriCivic Center, 4505 George Blvd. (US 27 and George Blvd.), Sebring. TI: 147.045, Info: Robert-WA0NZI, 863-385-6093
- 18 Feb Brooksville Hamfest, Hernando County Fairgrounds, US 41, two miles south of Brooksville. TI: 146.715, Info: Jerry-N8VTW, 352-683-3617

(From <http://bellsouthpwp.net/k/kb4vol>, the Web site of Bill Britton-KB4VOL and February 2006 *QST*)

-- UPCOMING DARN ACTIVITY --

The Diocese Amateur Radio Network (DARN) will be conducting a communications exercise at 11 AM on 13 February. As they will be using our W4AC Repeater, please monitor the frequency and avoid use of EchoLink during that activity. Thanks!

-- MAG MOUNT ON ALUMINUM --

If you have a porch with an aluminum (or aluminum) roof, here's an easy way to mount an antenna with a magnetic base on it. Place a steel pie pan, or similar piece of thin steel on the underside of the roof where you want to mount the antenna. The magnet probably can hold both the antenna and the pan firmly in place. *Hmmm, that might even work under the fiberglass trunk lid of a Corvette.*

(From "Aerials," Kurt N. Sterba, February 2006 *WorldRadio*)

-- VE UPDATES --

The ARRL VEC exam fee will remain at \$14.00 during 2006.

ARRL members can renew or change address of their license at no cost by submitted the paperwork at a VE session.

The new Technician class (Element 2) question pool is due for release in January and will become effective 01 July 2006. Significant changes are expected.

(From *VE E-Express Newsletter Winter 2005-2006*, ARRL)

"To forbid us anything is to make us have a mind for it." – Michel de Montaigne, *Essays*, 1588

MINUTES, from page 2

LIAISON TO QCWA – Jack-W4JS reported that 34 Chapter 53 members and friends attended the 04 January lunch/meeting at Denny's in Sarasota. Hans Napfel-WB2ZZB presented an outstanding power point program on "Early Radio." The February program will be coverage of the 2005 European tour of Bill Schlapfer-KA2HEA.

CLUB HISTORIAN – There were no volunteers for this position.

OLD BUSINESS – Scholarship/Financial Assistance: Matt-W2EQV has some reference material regarding scholarship awards within the Sarasota County School District.

Bus to Orlando Hamcation: Matt-W2EQV reviewed the arrangements for the charter bus for the 11 February trip. To date, 24 people have signed up, and payment of \$30/person is due before the end of January.

Sharks Tooth Festival: Konrad-WA3RRS advised all that TARC will be operating Special Event Station K4S during this 07-09 April event and it is hoped that members will provide assistance setting up and operating.

NEW BUSINESS – Amended Articles of Incorporation: Jack-W4JS advised all that the Board of Directors had agreed on the amended Articles, based on State of Florida format, which are concise and appropriate. Jack had talked with personnel in Tallahassee to confirm that these amended Articles would supersede the original Articles. Jack then gave a quick overview of the amended Articles, which provide a form of mission statement for the club and included all federal 501(c)(3) requirements. Bob-N1RA moved approval of the amended Articles of Incorporation, seconded by Jon-W4ZW, and passed by unanimous vote.

Venue for 2006 Christmas Party: Konrad-WA3RRS asked for discussion on a suitable location for this event. Dil Kay-KB8YLK suggested the Englewood Elks. Peter-N4RD is a member there and he will check availability, menu and prices.

ADDITIONAL COMMENTS – Don-WD7A asks that renewing members provide updated personal information such as addresses, telephone numbers, e-mail, etc., as well as their particular ham radio interests.

ADJOURNMENT – The meeting adjourned at 8:16 PM. There were 30 members and four visitors present.

PROGRAM – West Central Florida Section Manager Dee Turner-N4GD conducted a discussion forum, with good coverage of topics ranging from "Ham Aid" and emergency communications protocol

within the WCF to an overview of the outcome of the Tampa Bay Hamfest.

Jack Sproat-W4JS
Secretary

-- AMERICANS AND GADGETS --

An AP-Ipsos poll of 1000 US adults, taken between 13-15 December 2005 indicates that many have become hi-tech junkies. From a choice of "cannot imagine living without," "would miss but could do without" and "could definitely live without," here's how some of the "gadgets" were rated:

	Gotta <u>have</u>	Would <u>miss</u>	Don't <u>need</u>
Computer	46%	28%	26%
Cell phone	41	25	34
Broadband	38	31	31
CD player	22	32	46
Digital cable	20	37	43
DVD player	19	35	46
HDTV	17	36	47
Satellite radio	13	29	58
MP3 player	12	35	53
VCR	11	29	60
Gaming device	7	19	74

Almost half of personal computer owners say they can't imagine life without those computers, and almost as many cell phone owners say the same thing about their phones. It's apparent that most of those computer owners who have tried high-speed Internet now consider it essential.

The cost for communications and entertainment runs \$200 or more a month for a third of US households, the poll found. Those most likely to get hooked on electronic gadgets make more than \$50,000 a year, tend to be more educated and come from every age group except seniors.

David Greenfield, a Connecticut psychologist, offered some sage observations. "Part of the reason (people consider high-tech gadgetry essential to modern life) is the hype, the commercial selling of it," he said. "Some people feel the products will improve the quality of their lives. But do we really need to be connected in every way shape or form?"

(From "Poll: Americans dependent on gadgets," Will Lester, AP Writer, *The Englewood Sun*, 22 December 2005)

-- CHARTER BUS REMINDER --

Seats are still available on the charter bus from Venice (with a stop in Sarasota) to the Orlando HamCation on 11 February. The cost is \$30, including entrance ticket to the hamfest. Contact Matt-W2EQV at 488-8572, or Peter-N4RD at 475-3770.

-- THE HEATHKIT STORY --

(The Swedish Heathkit Club is observing the 09 February 1912 birthday of "Heath Co. founder" Howard Anthony with Special Event operation 11-12 February 2006. While commendable, the title is misplaced. The following comes from the Heathkit Virtual Museum Internet site, which can be found at <http://www.heathkit-museum.com/>. A visit to this site will rekindle the nostalgia for a wonderful era of ham radio.)

Founding -- The Heath Company was originally founded as an aircraft company in the early 1900s by Edward Bayard Heath. Starting in 1926 it sold a light aircraft, the Heath Parasol, in kit form. Heath died in a 1931 test flight. In 1935, Howard Anthony purchased the now-bankrupt Heath Company, and focused on selling accessories for small aircraft. After WW II, Anthony decided that entering the electronics industry was a good idea, and he purchased a large stock of surplus wartime electronic parts with the intention of building kits with them. In 1947, Heath introduced its first electronic kit, an oscilloscope that sold for \$50. The price was unbeatable and the scope went on to be a huge seller.

What made Heathkit special -- After the success of the oscilloscope kit, Heath went on to produce dozens of Heathkit products which were influential in shaping two generations of electronic hobbyists. Heath's premise was that by investing the time to assemble a Heathkit, the purchaser could build something comparable to a factory-built product at a very significantly lower cash cost. While commercial products were hand-wired and assembled, this premise was valid.

Heathkit enjoyed great popularity with ham radio operators, who, prior to the advent of these kits, had to procure parts from random sources and scratch-build equipment that was often based on experimental designs. Heathkits could be bought with the assurance that all parts were included, the assembly instructions were clear, and the finished product would work properly.

No knowledge of electronics was needed to assemble a Heathkit. The building process did not teach much about electronics, but the builder learned to identify the kit components, determine tube pin numbers, read the resistor color code, etc. Moreover, many builders were motivated to find out just what these components actually did.

After Howard Anthony died in 1954, Heath was bought by Daystrom Company, which was then diversifying into electronics. Daystrom was absorbed by Schlumberger Ltd. in 1962, and the Daystrom/Schlumberger days were their most successful. In 1974, Heathkit started "Heathkit Educational

Systems" with the product line offering digital clocks and weather stations, utilizing the new field of digital electronics.

The Heathkit H-8 computer was introduced in 1978. The success of the H-8 led Zenith Radio Company to buy the Heath Company from Schlumberger in 1979.

The kit era comes to a close -- By the 1980s, the introduction of printed circuit boards, integrated circuits, discount pricing, and overseas assembly eroded the basic Heathkit premise. While assembling a kit might still be fun, it would no longer save much money. The switch to surface mount components and LSI ICs (many of which were custom made and not easily available to the general public, much less Heath) made it impossible for the kit builder to construct an electronic device that was competitive with commercial products. Zenith sold Heathkit to Groupe Bull in 1989.

The end came on 30 March 1992 when Heath announced it was closing out its kits and leaving the business after 45 years; an announcement that made page A1 of the *New York Times* on that date.

The Heathkit company still exists in Benton Harbor and it has the schematic and manual library, and offers advice to owners of the older equipment.

-- W4AC REPEATER UPDATE --

The 7/8" heliax has been installed from the 146.805 repeater up to the 4-bay antenna. It is anticipated that better duplexers will be installed in the near future. The current 1/2" heliax from the 444.100 repeater to its antenna will be replaced with 7/8" heliax during February. The EchoLink mode is operative.

A WiFi contract with Englewood On Line (EWOL) has been signed and a high speed Internet connection is available at the repeater site. The Bushcom HF antenna is up, awaiting installation of the Kenwood transceiver that will serve as a remotely controlled HF station.

While the radio horizon of these repeaters is about 22 miles, in reality, the actual range is proving to be considerably greater.

At this time we have a repeater system that we can all be proud of. Obviously, this didn't "just happen." Rather, it took many hours of time and effort by numerous Club members in addition to the cost of the equipment and materials. The best way that TARC members can show their appreciation is by making use of these repeaters and equipment. Monitor the frequency, start up QSO, assist those who may call in looking for directions, check into our Thursday night repeater net, etc. To ignore the use of this equipment is truly a slap in the face of those relatively few members who expended their efforts for all of us.