



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
W4AC Repeater – 146.805 MHz(-) w/100 Hz PL
Web Site – <http://tamiamiarc.org>



-- JANUARY 2009 --

-- PRESIDENT'S MESSAGE --

I truly hope that all our TARC members enjoyed the Christmas Holiday and you are looking forward to a better year in 2009.

This past year had its ups and downs for sure. One of my biggest disappointments has been the receiving interference we encountered at our repeater site. We never have been able to pinpoint the cause of the interference. That caused us to install a receiver at an alternate location and connect it to the transmitter via the Internet. While the 175-watt transmitter gets out quite well, the height of the receiving antenna limits the range of reception. However, we do have an operational system within the range of our members, and that's the most important aspect of the repeater. Now, if more of you would just listen on the repeater frequency during the day, we might be able to provide assistance to lost ham venturing into the area.

I am also very disappointed with our members' attendance at our monthly meetings. Is it too much to ask that you give about two hours of your time to your club once a month? We try to offer programs of interest, but attendance is poor. We now have about 90 members on the roster, of which 70, or so, are permanent local residents. Yet, during the summer we see only about a dozen members at the meetings, and 25 to 30 members come out when all our Snowbird members are here. I realize that some members may have transportation problems, but it seems that too many are just not interested in our meetings. Why? Let us know what will get you out once a month to our meeting. I hope attendance will improve during 2009.

On the positive side, our annual participation at the Venice Sharks Tooth Festival has not only brought out camaraderie amongst many of our members, it has also provided good publicity for the Festival and the TARC. We will again be participating 17-19 April 2009, so mark your calendars and plan on helping out. It will be time well spent.

Undoubtedly the excellent association we have developed with the Pine View School Amateur Radio Club is the year's high point. However, keep in mind that this relationship only resulted from the continued efforts of Jon Hamlet-W4ZW. To this day, Jon is still the driving force at Pine View. There will be opportunities for more of our members to lend assistance there as the club's station starts to materialize. So far, the roster of volunteers has been pretty sparse, so I'm hoping that will change in 2009.

If you have been lax in club participation, please try to give some priority to our club. I'm looking forward to seeing more of you during 2009!

73 to all de Stew-W4MO

-- JANUARY MEETING --

Our next TARC meeting will start with a general discussion period at 6:30 PM, and the business meeting starting at 7:00 PM on **08 January 2009** 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. A video of Superstation WLW, which once ran 500 kw, will be shown. Come on out and learn more about this well known Cincinnati station.

-- DISCUSSION AT DECEMBER MEETING --



TAMIAMI AMATEUR RADIO CLUB

Minutes of the Meeting

11 December 2008

President Stew Haag-W4MO called the meeting to order at 7:00 PM and led the pledge of allegiance. Introductions were made all around.

MINUTES – Secretary Jack Sproat-W4JS asked for a motion to accept the minutes of the 13 November 2008 meeting as published in the December 2008 issue of *The Communicator*. Dil Kay-W8DIL so moved, seconded by Croft Taylor-VE3CT, and passed.

CORRESPONDENCE – Highlights of a flyer for the 13-15 February Orlando HamCation were mentioned, with some follow up discussion.

TREASURER'S REPORT – Treasurer Don Jansen-KI4VGE reported that the starting balance was \$2088.18. Receipts were \$21.00 from the November 50/50, and \$95.00 for membership renewals, totaling \$116.00. Expenses were \$14.43 for DayStar Internet service at the repeater, \$3.75 for printing and \$16.25 for two call sign badges, totaling \$34.43. The 11 December 2008 ending balance is \$2169.75. Jon Hamlet-W4ZW moved for approval, seconded by Konrad Owens-WA3RRS, and passed

COMMITTEE REPORTS

SUNSHINE – Bob Curts suffered congestive heart failure and heart fibrillation and was in Venice Hospital, where he caught a cold. Charlie Covell-W4DB is undergoing therapy due to his hip replacement, and has been checking into the nets. Martin Horowitz-N4RD is awaiting the results of biopsy tests.

VE TESTING – Jack-W4JS advised that several candidates are expected at this Saturday's VE session.

REPEATER/TECHNICAL – Stew-W4MO explained that our W4AC repeater system now consists of a receiver at his QTH with an Internet connection to the transmitter at the tower site. To improve the receiving range, he would like to have the receiver installed at the W4JS QTH with the antenna at about 60'. The labor expenses will be based on \$35/hour travel time and \$85/hour tower time, and estimated to total around \$250. Following limited discussion, Cullen Murphy-K1IXZ moved for approval of the project and payment of costs, seconded by Peter Pesa-N4RD, and passed unanimously on show of hands.

CLUB PROPERTY – Stew-W4MO reported no change in the Club property inventory.

PUBLICITY/MEMBERSHIP – Don-KI4VGE reported that we now have 90 members, including eight Life Members and 10 First-Year Free members.

NET OPERATIONS – Net Manager Bob Murphy-WA1UHG was not present.

LIAISON TO EARS – Konrad Owens-WA3RRS reported that the EARS Christmas Dinner is coming up and there is still room for three couples, if anyone was interested.

LIAISON TO QCWA – Jack-W4JS reported there were 24 members and friends at 03 December lunch at Denny's, Bee Ridge Road, Sarasota. Don Watson-K9DDO put on an informative program of broadcast receivers of the 1930s, with two restored examples. The January program will be about the Pioneers of Ham Radio.

OLD BUSINESS – Jon Hamlet-W4ZW reported on recent activities of the Pine View School ARC. After five members passed the Technician exams, Jon has started into discussions of "How to be a Ham Operator." As part of this discussion, he set up a portable antenna consisting of two 20-meter Hamsticks and made three SSB and one CW contacts from the school. Jon announced that there are 15 students signed up for Technician license classes that will begin in January 2009. Jon also commented that a businessman in the area is offering up to \$10,000 to a school that can develop a program emphasizing physics. As such, Jon has outlined a teaching platform emphasizing the electronics aspects of physics for submittal by Pine View School.

NEW BUSINESS – There are several items of note.

- 1) Stew-W4MO reported that the officers had approved increasing the Family Membership from the current \$18.50 to \$20 per year. Bob Avrutik-N1RA moved for approval of the increase, seconded by Jon Hamlet-W4ZW, and passed.
- 2) Jon-W4ZW asked that members consider donating any older handi-talkie they may have to him for the benefit of the members of the Pine View School ARC.

ANNUAL ELECTION – Stew-W4MO turned the floor over the Peter Pesa-N4RD, Nominating Committee Chairman. Peter commented that, due to lack of other members volunteering, the existing officers had expressed their willingness to serve during 2009. As such, Peter moved that

See **Minutes** on pg. 6

CURRENT/PENDING DX ACTIVITY & PROPAGATION HIGHLIGHTS

CURRENT and/or SCHEDULED DX ACTIVITY										
COUNTRY – CALL SIGN	ACTIVITY PERIOD	BEARING	HF BANDS and BEST OPENING TIMES (GMT)							
			80	40	30	20	17	15	12	10
Senegal – 6W2SC (mostly digital)	Now to 09 Mar	87	22-09	18-09	12-22	14-20	16-18	16-18	NO	NO
Guinea Bissau – J5UAP (mostly digital)	Now to 09 Mar	89	22-09	18-09	13-22	14-20	16-18	16-18	NO	NO
Cote d'Ivoire – TU8/F4EYS	Now to 28 Feb	90	22-08	20-09	13-23	13-21	15-19	16-18	16-18	NO
Antarctica – OP0LE	Now to 15 Feb	180	--	02-09	--	00-09	--	--	--	NO
Canary Is – EA8/ON5JV; EA8/ON6AK	Now to 03 Feb	72	--	00-24	--	13-20	--	--	--	--
Cambodia – XU7ACY	Now to 31 Jan	349	1130	11-13	13-14	15-18	15-18	NO	NO	--
Gabon – TR50R	Now to 15 Jan	88	22-06	20-08	19-23	13-21	15-19	15-19	15-19	NO
Ascension Is – ZD8UW (British Ops)	Now to 09 Jan	108	22-08	19-10	12-23	13-22	15-20	16-19	15-20	NO
Antarctica – KC4AAA	Now to 05 Jan	180	NO	02-09	03-09	00-09	20-23	NO	NO	NO
Nepal – 9N7DMI **	01 to 05 January	13	23-01	21-00	20-23	19-21	NO	NO	NO	NO
Palestine – E44M	01 to 11 January	49	22-06	20-07	13-17	14-16	1500	NO	NO	NO
Chagos – VQ9JC	01 to 18 April	54	22-02	21-03	20-22	14-19	16-17	16-17	NO	NO
Marshall Is – V73NS **	05 to 31 January	282	05-13	04-15	08-14	19-22	19-21	19-20	19-20	NO
Tunisia – TS7C (25 op international team)	08 to 19 January	57	21-08	19-09	13-19	14-18	15-17	15-17	NO	NO
The Gambia – C56KR	09 to 14 January	88	--	18-09	12-22	14-20	16-18	16-18	NO	NO
Solomon Is – H44MS	10 Jan - 28 April	275	07-13	06-15	12-16	19-23	20-22	20-22	2030	NO
Maldives – 8Q7AK	11 to 27 January	41	22-02	21-01	20-23	14-20	16-19	16-19	NO	NO
Senegal – 6W/DL2RMC	16 to 19 January	87	22-09	18-09	12-22	14-20	16-18	16-18	NO	NO
The Gambia – C56KR	23 Jan – 04 Feb	88	--	19-09	12-23	14-21	16-18	16-18	NO	NO
Wallis & Futuna Is – FW0RE	28 Jan – 28 Feb	260	05-13	04-15	05-15	18-01	18-23	19-22	20-21	20-21

Updated 28 December 2008, based on 24 December *QRZ DX*, 22 December 2008 *The Weekly DX*, and <http://www.ng3k.com/>

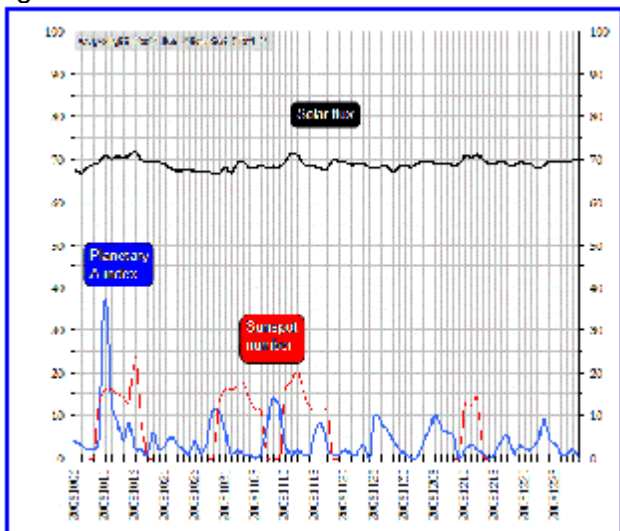
Notes: **Time in bold** = Band(s) with 75-100% opening; ??? = Call Sign not yet known; ++ = Mostly Phone; ** = Mostly CW; NO = No Opening forecast. Long Path bearings and opening times are underlined. All forecasts calculated using *W6ELProp V.1.03* propagation software, available at <http://www.qsl.net/w6elprop/>. Solar Flux and K-index varied in accordance with USAF 45-Day A/P Forecast.

-- DECEMBER SOLAR ACTIVITY --

During December, the Solar Flux ranged from 68 to 71, with a mean value of 69.2 (vs. 78.6 for December 2007 and 84.3 for December 2006). The A-index was ≤ 10 on 28 days.

December's geomagnetic field activity was at quiet levels during the month, other than unsettled levels 04-06 Dec due to recurrent coronal hole high speed streams (HSS).

Cycle 24 Region 1009 showed on 09 December, spawned a low-level C-class flare on 10 Dec. and departed the visible disc 13 Dec. See figure below.



(Courtesy of: Jan Alvestad, <http://www.solen.info/solar/>)

Saints are sinners who kept on going. – R. L. Stevenson

-- JANUARY FORECAST --

January solar activity is expected to be very low. No proton events are expected at geosynchronous orbit. The greater than 2 MeV electron flux at geosynchronous orbit is expected reach high levels 02-06 January. Solar flux should range between 68 and 71 during the month.

Geomagnetic field activity is expected to be at unsettled levels 01-02 due to recurrent HSS. Activity is expected to decrease to quiet levels 03-17 January. Activity is expected to increase to unsettled levels 18-19 January, returning to quiet conditions until 25-29 January when activity will be unsettled. Conditions will be quiet for the remainder of the month.

(From NOAA *Weekly Highlights and Forecasts*, 25 November 2008, NOAA *27-day Space Weather Outlook Table*, 25 November 2008, and *45 Day AP Forecast*, USAF, 26 November 2008)

-- VARIOUS DX NOTES OF INTEREST --

Some good DX activity will occur during the early months of 2009. 3D2OU and 3D2NB will be mostly on CW 11-16 February, with the big operation from KP5-Desecheo Island 12-26 February. The CW weekend of the ARRL DX Contest will be 21-22 February. H40MS is scheduled to be on 12 hours a day from Temotu 02-16 March, and a Bangladesh operation should fire up 07-12 March. VK9LA will be on from Lord Howe Island 24 March-03 April.

(From <http://www.ng3k.com/>)

CONTESTS & ACTIVITIES

Contest/Special Event	Begin-End Times/Dates	Bands/Modes	QSO With	Exchange
ARRL Straight Key Night	0000Z 01 Jan 2400Z 01 Jan	80 – VHF+ CW Only	Anyone, Anywhere, using a straight key	“SKN” and short QSO
ARRL RTTY Roundup	1800Z 03 Jan 2400Z 04 Jan	80 – 10 Meters Digital Modes	Anyone, Anywhere	R/S/T, State or Province
Kid’s Day	1800Z 04 Jan 2400Z 04 Jan	80 – 10 Meters Phone Only	Stations with kids at the mike	Name, age, QTH favorite color
070 PSKFest	0000Z 10 Jan 2400Z 10 Jan	80 – 10 Meters PSK31 Only	Anyone, Anywhere	Call Sign, R/S/T, State/Province
North American QSO Party	1800Z 10 Jan 0600Z 11 Jan	160 – 10 Meters CW Only	Anyone, Anywhere	Name, State or Province
UK DX RTTY Contest	1200Z 17 Jan 1200Z 18 Jan	80 – 10 Meters RTTY Only	Anyone, Anywhere	R/S/T and Serial Number
Hungarian DX Contest	1200Z 17 Jan 1200Z 18 Jan	160 – 10 Meters Phone and CW	Anyone, Anywhere	R/S/(T) and Serial Number
North American QSO Party	1800Z 17 Jan 0600Z 18 Jan	160 – 10 Meters Phone Only	Anyone, Anywhere	Name, State or Province
CQ WW 160 Meter Contest	2200Z 23 Jan 2200Z 25 Jan	160 Meters Only CW Only	Anyone, Anywhere	R/S/T, State or Province
REF French Contest	0600Z 24 Jan 1800Z 25 Jan	80 – 10 Meters CW Only	Stations in France & French Territories	R/S/T and Serial Number
BARTG RTTY Sprint	1200Z 24 Jan 1200Z 25 Jan	80 – 10 Meters RTTY Only	Anyone, Anywhere	Serial Number
Winter Field Day	1700Z 24 Jan 1700Z 25 Jan	160 – VHF SSB, CW, Digi	Stations operating as Field Day stations	Call Sign, R/S/(T), category Temp C/F ^o
UBA Contest	1300Z 24 Jan 1300Z 25 Jan	80 – 10 Meters Phone Only	Anyone, Anywhere	R/S and Serial Number
Classic Exchange	1400Z 25 Jan 0800Z 26 Jan	160 – 2 Meters CW Only	Stations using vin- tage equipment	R/S/T, QTH, equipment used

From “Contest Corral” on the ARRL Web Site

-- VOICE OF THE EMIRATES --



On 02-03 December, the Emirates Amateur Radio Society club station E62ER operated for national days. Here’s Michel Homsi-OD5TX/A61TX doing the honors at the IC-775.

The Internet...has become the voice of the people in the first genuine experiment in democracy conducted in America. It stands ready to serve every facet, every faction. – Gerry Spence, Give Me Liberty

-- IT’S DUES TIME AGAIN --

Yep, with the New Year, it’s time to show your loyal support of the TARC by paying your 2009 dues. Still US\$15 for individual, but now US\$20 for family membership. Please complete a Membership Application, to update your personal data and interests, and mail with your check payable to “TARC” to:

Don Jansen-KI4VGE
4254 Pandora Road
Venice, FL 34293

-- REGIONAL HAMFESTS --

- 17 Jan Southwest Florida Hamfest & Computer Show, Fort Myers ARC, Araba Shrine Auditorium, 2010 Hanson St, Fort Myers. TI: 146.880 (PL 136.5)
- 31 Jan DeSoto County Hamfest, Desoto ARC, Turner Civic Center, 2250 NE Roan St, Arcadia. TI: 147.075

(From ARRL Hamfest Database)

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-- DTV ASSISTANCE REQUESTED --

(The program at our December meeting centered on this request by the FCC that Radio Amateurs be available to assist their neighbors using over-the-air TV reception when analog TV disappears 17 February. Interested groups are to contact their ARRL Section Manager, and the TARC has already relayed its interest to Dee Turner-N4GD.)

The FCC is asking ARRL members to provide technical educational assistance to their communities concerning the FCC-mandated digital television (DTV) conversion scheduled for 17 February 2009.

According to ARRL Media and Public Relations Manager Allen Pitts-W1AGP, Amateur Radio clubs across the country are being asked to develop and implement plans to provide information throughout January and February about the DTV conversion in their areas. The FCC is leaving it up to the clubs to decide how to do this. Each community is a little different, Pitts said, so plans carried out by the clubs will vary from community to community.

Pitts stressed that hams should not make "house calls," sell any equipment or do actual installations; the FCC's request is only to distribute technical information and FCC materials. He commented: "As we all know, some folks just never get the message until too late. Materials for presentations, education and many other activities are available online <<http://www.dtv.gov/outreach.html>>. Beginning early January, FCC staff will contact Section Managers and leaders of interested clubs and, where possible, arrange to meet to share even more information, audio, visual and printed materials, as well as training aids, with the clubs involved this effort. We know the time is short, but your aid in this now will be appreciated."

In early January, Pitts said that the FCC will ask Section Managers for the names and contact information of the volunteering groups. The FCC staff will then make contact with the groups, learn their plans and provide them with the media, brochures or other materials groups may need in this effort. FCC regional staff members may even come and visit with larger groups to aid in implementation of the group's plans.

"I really appreciate the willingness of the ARRL to actively participate in helping Americans with the transition to DTV and your helpful suggestions," said George Dillon, FCC Deputy Bureau Chief for Field Operations. "The DTV transition will be an historic moment in the evolution of TV.

Broadcast television stations can offer viewers improved picture and sound quality and new programming choices.

"All-digital broadcasting also will allow us to significantly improve public safety communications and will usher in a new era of advanced wireless services such as the widespread deployment of wireless broadband. Our goal is to engage the amateur community on a cooperative basis to help with the DTV outreach and to educate consumers."

Dillon continued that local Amateur Radio clubs might consider offering technical advice to consumers via telephone to those consumers who may encounter difficulty with the installation and setting up of their converter box. "Any assistance...will greatly help in the efforts of the FCC to ensure a smooth transition to DTV on February 17, 2009."

Pitts advises interested groups to keep in mind that they are to provide technical educational help only: "At no time should the hams enter someone else's home or install equipment. They should not broker or sell conversion boxes in any way. Clubs can provide such things as a call-in telephone number for technical help, make presentations at meetings, do demonstrations at malls or give talks to other groups – whatever works in their community."

(From *The ARRL Letter*, Vol. 27, No. 49, 12 December 2008)

-- NEED AN "ELMER"? --

If you're studying for an upgrade, and feel the need for "comfort and assistance," contact any of the following TARC members:

General Class

Jack Gaddas-KY1Z	igaddas@verizon.net
Mike Hickey-NY4P	ai4sr@hotmail.com
Konrad Owens-WA3RRS	kdowens39@hotmail.com
Jack Sproat-W4JS	w4js@juno.com

Extra Class

Jack Gaddas-KY1Z	igaddas@verizon.net
Stew Haag-W4MO	w4mo@win.net
Bob Avrutik-N1RA	n1ra@juno.com

In addition to the above, Andy Durette-KB1HIP has offered to conduct an Extra Class training course, and some six TARC members have indicated interest. Contact Andy via AF_Durette@hotmail.com .

The bigger the information media, the less courage and information they allow. Bigness means weakness. Eric Sevareid, American newsman, 1959

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the nominations be closed, seconded by Cullen Murphy-K1IXZ. Peter then directed the Secretary to cast one ballot signifying the unanimous vote for the nominees.

COMMENTS FROM THE FLOOR – None

ADJOURNMENT – A motion to adjourn at 7:36 PM was made by Konrad-WA3RRS, seconded by Croft-VE3CT, and passed. There were 17 members and no guests present.

PROGRAM – Stew-W4MO led a discussion with regard to an ARRL notice which transmitted a FCC request that Amateur Radio clubs volunteer to provide information and advice to the general populace regarding the pending switch from analog VHF TV to UHF HDTV broadcasting.

Jack Sproat-W4JS
Secretary

-- NOW HERE'S SERIOUS QRO! --



Eimac 4CX35000 tetrode tube, weighs 50# and costs about \$4300. Used at AM station WBZ which has signal over 38 states.



60,000 kw carrier output. From a Mid-November WBZ station tour by Bob Marchese-K1NOK.

-- WHAT A WONDERFUL WINTER! --



Speaking of Bob-K1NOK, here we see him enjoying life in New England. While he would rather be blowing away a DX pileup, he's busy blowing away some weird white stuff and dreaming of better days here with his TARC buddies.

--"HAM" HUMOR --



"You never heard of a ham operator before?"

-- NOTE TO FIRST YEAR FREE MEMBERS --

If you were granted "First Year Free" status prior to September 2008, you must pay membership dues for 2009 if you want to remain a member of the TARC. If you are uncertain, Don Jansen-KI4VGE (DLJansen@comcast.net) can clarify when you became a "First Year Free" member.

January 2009

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 TARC Emergency Net @ 7:30 PM, W4AC Repeater 146.805	2 Breakfast @ Peach's, ± 7:45 AM	3
4	5	6 Breakfast @ Peach's, ± 7:45 AM TARC Net @ 7:30 PM, 146.580	7 QCWA Lunch, 11:30 AM @ Denny's TARC DX Net, 8 PM, W4AC Repeater 146.805	8 TARC Meeting, Tech Session @ 6:30 PM, Meeting @ 7 PM	9 Breakfast @ Peach's, ± 7:45 AM	10 TARC VE Session @ 9:00 AM, Venice Public Library
11	12 DARN Emergency Net @ 11 AM & 7:30 PM, Starts on W4AC re- peater 146.805	13 Breakfast @ Peach's, ± 7:45 AM TARC Net @ 7:30 PM, 146.580	14 TARC DX Net, 8 PM, W4AC Repeater 146.805	15 TARC Emergency Net @ 7:30 PM, W4AC Re- peater 146.805	16 Breakfast @ Peach's, ± 7:45 AM	17 SW Florida Hamfest & Computer Show, Fort Myers
18	19	20 Breakfast @ Peach's, ± 7:45 AM TARC Net @ 7:30 PM, 146.580	21 TARC DX Net, 8 PM, W4AC Repeater 146.805	22 TARC Emergency Net @ 7:30 PM, W4AC Re- peater 146.805	23 Breakfast @ Peach's, ± 7:45 AM	24
25	26	27 Breakfast @ Peach's, ± 7:45 AM TARC Net @ 7:30 PM, 146.580	28 TARC DX Net, 8 PM, W4AC Repeater 146.805	29 TARC Emergency Net @ 7:30 PM, W4AC Re- peater 146.805	30 Breakfast @ Peach's, ± 7:45 AM	31 DeSoto ARC Hamfest, Arcadia

Personal Events

**TAMIAMI AMATEUR RADIO CLUB, INC.
MEMBERSHIP APPLICATION**

Name _____ Call Sign _____ Class ____ ARRL (Y/N)____

Local Address _____ City _____ Zip _____

Summer Address _____ City/State _____ Zip _____

Tel. No. _____ E-Mail _____ Application Date _____

Please check activity interests: Ass't Net Control __, RFI/TVI __, VE Testing __, Training __, Packet __, RTTY __,
Computers __, DXing __, Contests __, Field Day __, Publicity __, Emergency Communications __, Special Events __,
VHF/UHF __, SSTV __, ATV __, Repeater __, EchoLink __, Other (specify) _____

Single Member @ \$15.00/year __, Family Membership @ \$18.50/year __ (\$8.00 after 30 June for remainder of calendar year. \$15.00 after 31 October grants membership through remainder of year and all of the following year.)

MAIL TO: TARC, 1419 E. MANASOTA BEACH RD, ENGLEWOOD, FL 34223-6341

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1419 E. MANASOTA BEACH ROAD
ENGLEWOOD, FL 34223-6341**

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Of the Tamiami Amateur Radio Club, Inc.
Editor: Jack Sproat-W4JS
Circulation: Don Jansen-KI4VGE

2008 TARC Officers

President: Stew Haag-W4MO
V. President: Bruce Brown-WA8IQF
Secretary: Jack Sproat-W4JS
Treasurer: Don Jansen-KI4VGE
Directors: Konrad Owens-WA3RRS
Jon Hamlet - W4ZW
Jack Gaddas-KY1Z
Bob Avrutik-N1RA