

THE COMMUNICATOR

Newsletter of the TAMIAMI AMATEUR RADIO CLUB

Incorporated 30 November 1984 – Venice, Florida Mailing Address: 1419 E. Manasota Beach Rd., Englewood, FL 34223-6341 W4AC Repeater – 444.100 MHz &146.805 MHz(-) w/100 Hz PL Web Site – <u>http://tamiamiarc.org</u>





-- PRESIDENT'S MESSAGE --

Who really counts in your life? Perhaps these questions will give the answers.

1. Name the five wealthiest people in the world.

2. Name the last five Heisman Trophy winners.

3. Name the last five winners of the Miss America contest.

4. Name ten people who have won the Nobel or Pulitzer prize.

5. Name the last half-dozen Academy Award winners for Best Actor and Actress.

6. Name the last decade's worth of World Series winners.

Well, how did you do? The point is, none of us remember the headlines of yesterday. These are not second-rate achievers; they're the best in their fields. But the applause dies; awards tarnish and achievements are forgotten. Accolades and certificates are buried with their owners.

Now, let's see how you do with the following questions.

1. List a few teachers who aided your journey through school.

2. Name three friends who have helped you through a difficult time.

3. Name five people who have taught you something worthwhile.

4. Think of a few people who have made you feel appreciated and special.

5. Think of five people you enjoy spending time with.

6. Name several heroes whose stories have inspired you.

Easier? I'm sure it was. The lesson? The people who make a difference in your life aren't the ones with the most credentials, the most money, or the most awards. No. They are the ones who care! They are the ones who count!

73, Stew Haag-W4MO

A little government and a little luck are necessary in life, but only a fool trusts either of them. – P. J. O'Rourke

-- NOVEMBER MEETING --

Our meeting will start at **6:00 PM** on Tuesday, **02 November 2010** in the Meeting Room of the Venice Public Library, 300 South Nokomis Avenue. A program of interest will follow the business meeting. Details will be in the e-mail "tickler." We hope to see you there.

-- A TIME FOR CONTEMPLATION --

One of the local QRPers came by last week and we sat out on the lanai, enjoying the low humidity and the afternoon sun. This well-aged QRPer was a bit restless and we thought we knew the answer. "Been reading 'Silent Keys' in QST again?" we asked, and the QRPer nodded. After a bit he remarked, "This DXing has always been an unusual thing to me." "A DXer makes an acquaintance that may be thousands of miles away, in another country, and with the odds that most will never meet face-to-face. Yet there exists a bond and that feeling of loss when they are no longer with us. Why is that?"

We held our own silence for the feeling has come to us as we thought of Bill-VP2SQ/J88AQ, Muhammed-JY4MB. Jim-VK9NS and other DXers we've known over the air and then lost. Finally the QRPer spoke again. "I have long felt that DXers offer what is closer to true friendship than any other activity. We meet another DXer on the air, we give nothing and expect nothing. Only friendship. That and nothing more." We both were silent for a long time after this, for most DXers do know the feeling and the friendships. The true Internationalists of Amateur Radio are the DXers and their bonds of friendship are far flung. Come! Join with the DXers who want naught but friendship (and a new entity or two once in awhile).

(Adapted from *DX IS! The Best of the West Coast DX Bulletin*, edited and published by Charles Allen-W5DV and James Allen-W6OGC, 1981)

Never be haughty to the humble or humble to the haughty. – CSA President Jefferson Davis

TAMIAMI AMATEUR RADIO CLUB Minutes of the Meeting 05 October 2010

President Stew Haag-W4MO called the meeting to order at 6:10 PM and, following a flag salute, introductions were made all around. John Donahoe-W2DUU from Englewood was welcomed as a new member.

MINUTES – A motion to accept the minutes of the 07 September 2010 meeting as published in the October 2010 issue of *The Communicator* was moved by Jack Gaddas-KY1Z, seconded by Bob Avrutik-N1RA, and passed.

CORRESPONDENCE – The obituary for TARC member Bernie Holtman-W4GO, who passed away 01 October at the age of 91 up in Louisville, Kentucky was read by Stew-W4MO.

TREASURER'S REPORT – Treasurer Don Jansen-Kl4VGE reported that the starting balance was \$961.36. Receipts were \$13.00 from the September 50/50 and \$8 in dues, totaling \$21.00. Expenses were \$14.80 for DayStar Internet service. The 05 October 2010 ending balance is \$967.56. Charlie Covell-W4DB moved for acceptance of the report, seconded by Peter Pesa-N4RD, and passed.

COMMITTEE REPORTS

SUNSHINE – Stew-W4MO reported that Lee Darby-K4GCY had undergone laser surgery today, and that Secretary Jack Sproat-W4JS was absent tonight due to flu symptoms.

VE TESTING – Our next regularly scheduled VE session will be at 10 AM on 09 October. There have been no inquiries to date.

REPEATER/TECHNICAL – The 146 and 444 MHz repeaters are operational. The remote Kenwood radio is operational from the repeater site. The EchoLink mode has not been reactivated to date.

CLUB PROPERTY - No inventory changes.

PUBLICITY/MEMBERSHIP – We now have 106 members, including nine Life Members, 34 First-Year Free members, and 63 dues paying members. There are 43 Amateur Extra, seven Advanced, 20 General and 36 Technician class licensees.

NET OPERATIONS – Net Manager Bob Murphy-WA1UHG was not present. Stew-W4MO commented that turnout for the nets has been very poor, with no more than three or four members participating.

LIAISON TO EARS – No one was present who could report on activity by the Englewood ARS.

LIAISON TO QCWA – Suncoast Chapter 53's 06 October lunch at Denny's on Bee Ridge Road in Sarasota. Hans Napfel-WB2ZZB has prepared a Power Point program showing recent vacation activities of some members. All are welcome to come out, have lunch and enjoy the camaraderie.

OLD BUSINESS – Hans-WB2ZZB has not yet had time to see if he can repair the Club's digital projector.

NEW BUSINESS – Nothing.

COMMENTS FROM THE FLOOR – It was reported that our 444.100 MHz W4AC Repeater is working fine.

ADJOURNMENT – A motion to adjourn at 6:31 PM was made by Bill Salmon-W2IL, seconded by Bob Avrutik-N1RA, and passed. There were 22 members present.

PROGRAM – Stew Haag-W4MO talked about to the JT65 modes, developed by Joe Taylor-K1JT 1993 Nobel Prize in Physics laureate, which are used in EME ("moonbounce") communications. WSJT ("Weak Signal Communication, by K1JT") offers specific digital protocols optimized for meteor scatter, ionospheric scatter, and EME at VHF/UHF, as well as HF skywave propagation. Details are available on the WSJT home page on the Internet.

Peter Pesa-N4RD Acting Secretary

-- REGIONAL REPEATERS --

		_
Arcadia	W4MIN	147.075(+) 100 Hz
Arcadia	W4MIN	147.180(+)
Englewood	N4EAR	146.700(-) 77 Hz
Englewood	K0DGF	146.775(-) 77 Hz
Englewood	W4AC	146.805(-) 103.5 Hz
Grove City	K8ONV	146.865(-) 136.5 Hz
Laurel	N4SER	145.130(-) 100 Hz
North Port	K4NPT	147.120(+) 136.5 Hz
North Port	W0AC	146.970(-) 136.5 Hz
Pt. Charlotte	N4FOB	146.925(-) 136.5 Hz
Pt. Charlotte	KS4ST	147.015(+)
Pt. Charlotte	W4DUX	147.255(+) 136.5 Hz
Punta Gorda	WX4E	146.745(-) 136.5 Hz
Punta Gorda	KF4QWC	146.685(-) 136.5 Hz
Sarasota	W4IE	146.910(-)
Sarasota	N4SER	146.730(-) 100 Hz
Sarasota	N4SER	147.390(+) 100 Hz
Sarasota	KF4RJC	145.370(-) 74.4 Hz
Verna	NI4CE	145.430(-) 100 Hz
NOTE. Th	- 445 400	namaatan ba Launal marr

<u>NOTE</u>: The 145.130 repeater in Laurel now requires a 100 Hz PL tone for access.

CURRENT and/or SCHEDULED DX ACTIVITY										
COUNTRY – CALL SIGN	ACTIVITY	BEAR-	HF	BAND	S and I	BEST (OPENIN	IG TIME	ES (GN	IT)
COUNTRY - CALL SIGN	PERIOD	ING	80	40	30	20	17	15	12	10
Marion Island - ZS8M; active almost daily	Now to May '11	130		22-04		19-21	17-21	NO	NO	NO
Tristan da Cunha – ZD9AH; ++	Now to 06 Dec	132	23-06	22-08	21-03	13-22	14-19	14-19	NO	NO
Dem. Rep. of Congo – 9Q6CC	Now to 30 Nov	88	26-05	21-06	20-00	13-22	14-21	16-19	16-19	16-19
Egypt – SU/HA3JB; **	Now to 15 Nov	54	22-05	19-08	20-00	13-17	15-16	15-16	15-16	NO
South Cook Is – E51NOU; **	Now to 13 Nov	246		03-14	07-14	16-00	17-23	18-22	19-21	19-21
The Gambia – C56FR; ++	Now to 11 Nov	88				12-23	13-21			
Rwanda - 9X0SP, 9X0DL, etc. German team	Now to 10 Nov	81	22-04	21-05	21-00	16-22	14-20	16-19	16-19	NO
Madagascar – 5R8X by Finnish team	Now to 10 Nov	90	22-03		22-00		16-20		15-19	
Maldives – 8Q7EJ; **	Now to 07 Nov	41				14-21				
Botswana - A25ZY, A25DF, etc., team oper.	Now to 03 Nov	105	22-04	21-05	20-03	15-23	14-21	14-20	15-19	15-19
St. Pierre & Miquelon – FP/KV1J; all modes	Now to 02 Nov	39	21-13	11-00	13-22	15-19	16-17	NO	NO	NO
Mauritius – 3B8/DG5MMW	01 to 06 Nov	88	22-02	21-03	21-01	16-22	14-20	15-19	16-18	16-18
Vanuatu - YJ0HA; HA ops, all modes	01 to 15 Nov	262	06-13	05-14	07-14	18-00	19-22	20-21	20-21	NO
Burundi - 9U0A; 700 W, beam all modes	03 to 09 Nov	83	22-04	21-05	21-00	16-22	14-19	15-19	15-19	NO
Sierra Leone – 9L0W; DL team, all modes	04 to 18 Nov	91	22-08	19-08	19-00	13-21	15-20	15-18	15-18	NO
Senegal – 6V7??; DL team; maybe also PSK	08 to 18 Nov	87	22-08	19-09	18-00	13-22	13-20	15-19	15-18	15-18
Uganda – 5X1XA; **	14 Nov – 01 Dec	77	22-04	21-05	21-23	13-21	14-19	16-18	NO	NO
Seychelles - S79AU; JA team, all modes	19 to 27 Nov	68	22-03	21-04	21-23	15-21	15-18	15-17	15-19	NO
Kermadec Is - ZL8X; team oper. 7 QRO stns	19 Nov – 05 Dec	245	06-13	05-14	08-14	16-23	18-22	20-22	20-22	NO
Niue – ZK2A; CW, RTTY; focus on Europe	19 Nov – 03 Dec	252	05-13	04-14	08-15		17-22		20-21	
Vietnam – XV4SP; 700 w, all modes	26 Nov - 06 Dec	348	10-12	10-13	NO	15-18	15-18	NO	NO	NO

CURRENT/PENDING DX ACTIVITY & PROPAGATION HIGHLIGHTS

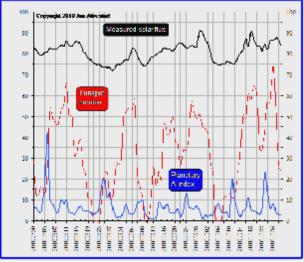
Updated 28 October 2010, based on 27 October 2010 QRZ DX, 25 October 2010 The Weekly DX and http://www.ng3k.com

Notes: **Time in bold** = Bands with 75-100% opening; ??? = Call Sign not yet known; ++ = Mostly Phone; ** = Mostly CW; NO = No Opening forecast. Long Path bearings and opening times are <u>underlined</u>. All forecasts calculated using *W6ELProp V.2.60* propagation software, available to download at <u>http://www.qsl.net/w6elprop/</u>. Solar Flux and K-index varied by date in accordance with USAF 45-Day A/P Forecast.

-- OCTOBER SOLAR ACTIVITY --

Through 30 October the Solar Flux ranged from 74 to 91, with a mean value of 81.7 (vs. 72.4 for October 2009 and 68.4 for October 2008). The A-index was \geq 7 on 9 days. The sunspot number ranged from 0 to 74, with a mean of 34.3 through 29 October.

Sunspot Regions 1111 thru 1117 were active during October, with one M- and several B- and C-class flares. However, geomagnetic field disturbances during October—especially those on 22-24 October--were generally due to recurrent coronal mass ejections causing high speed solar wind streams (HSS).





-- NOVEMBER FORECAST --

Solar activity is expected to be very low to low levels.

No proton events are expected at geosynchronous orbit. The greater than 2 MeV electron flux at geosynchronous orbit is expected to be at normal to moderate levels during the month. The solar flux should average 82.0 during November.

The geomagnetic field should be quiet to unsettled 01-02 November due to recurrent HSS. Mostly quiet levels are expected 03-17 November. Predominantly unsettled to active conditions, with periods of minor to major storming at high latitudes 19-21 November, are expected for the remainder of the month.

(From NOAA Weekly Highlights and Forecasts, 26 October 2010, NOAA 27-day Space Weather Outlook Table, 26 October 2010, and 45 Day AP Forecast, USAF, 26 October 2010)

-- SMA ARC TO BE ON TV --

Several weeks ago Educational TV cameras were focused on the members and activities of the Sarasota Military Academy Amateur Radio Club. WEDU will be broadcasting this coverage Thursdays at 8 PM and Sundays at 2 PM until the third Thursday of November on "A Gulf Coast Journal" with Jack Perkins.

(TNX to George Becht-N2SQ, Trustee for W4SMA; the SMA ARC)

NOVEMBER CONTESTS & ACTIVITIES

Contest/Special Event	Begin-End Times/Dates	Bands/Modes	QSO With	Exchange
Ukrainian DX Contest	1200Z 06 Nov	80 – 10 Meters	Anyone, Anywhere	R/S/(T), Serial
	1200Z 07 Nov	SSB and CW		Number
ARRL November	2100Z 06 Nov	160 – 10 Meters	USofA and Canadian	(See ARRL Web
Sweepstakes	0300Z 08 Nov	CW Only	Stations Only	Site)
Worked All Europe DX	0000Z 13 Nov	80 – 10 Meters	European Stations Only	R/S/T, Serial
Contest	2400Z 14 Nov	RTTY Only	(Note use of QTCs)	Number
Japan International DX	0700Z 13 Nov	80 – 10 Meters	Japanese Stations Only	R/S, CQ Zone (5
Contest	1300Z 14 Nov	SSB Only		locally)
OK-OM DX Contest	1200Z 13 Nov	160 – 10 Meters	Czech and Slovak	R/S/T, Serial
	1200Z 14 Nov	CW Only	Stations Only	Number
Romanian International	1600Z 19 Nov	80 Meters Only	Anyone, Anywhere	R/S/T, Serial #,
PSK 31 Contest	2200Z 19 Nov	PSK 31		Country
Mongolia DX Contest	0000Z 20 Nov	160 – 10 Meters	Anyone, Anywhere	R/S/(T), CQ Zone
	2359Z 21 Nov	SSB and CW		(5 locally)
Bulgarian DX Contest	1200Z 20 Nov	160 – 10 Meters	Anyone, Anywhere	R/S/(T), ITU Zone
	1200Z 21 Nov	SSB and CW		(8 locally)
All Austria 160-Meter	1600Z 20 Nov	160–Meter Only	Anyone, Anywhere	R/S/T, Serial
Contest	0700Z 21 Nov	CW Only		Number
RSGB 1.8 MHz Contest	2100Z 20 Nov	160-Meter Only	Anyone, Anywhere	R/S/T, Serial
	0100Z 21 Nov	CW Only	_	Number
CQ World Wide SSB Contest	0000Z 27 Nov	80 – 10 Meters	Anyone, Anywhere	R/S, CQ Zone
	2400Z 28 Nov	CW Only		(Zone 5 locally)

Legend: Serial = Sequential number of contact; S/P/C = State, Province, DXCC Entity

From ARRL "Contest Corral," October 2010 QST, October 2010 WorldRadio Online, and WA7BNM Contest Calendar

-- FRC CONSIDERING 2-METER NBFM --

The current 2-meter band allocation for repeaters is limited to 73 discrete frequencies. In Florida all these frequencies have been allocated, albeit in many instances to "paper repeaters," i.e. those which are totally inactive.

In the frequency range 145.110 to 145.490 MHz, there is a 20 kHz separation between frequencies, and from 146.610 to 147.390 MHz there is a 15 kHz separation. The Florida Repeater Council, which is the ARRL designated organization for assigning coordinated frequencies throughout the state, is proposing the establishment of 71 new repeater frequencies to be located midway between the current frequencies, i.e., with 10 and 7.5 kHz separation, dependent on which portion of the spectrum will be used. Use of this reduced separation will mandate that repeaters and their users transmit and receive with no more than 2.5 kHz deviation.

The rationale for this proposal is multifaceted. The FRC claims future demand for repeater frequencies will require it. The FRC notes the fact that current technology is such that digital, D-Star, P-25 and the newer analog voice repeaters can all use 2.5 kHz or less "Narrow Band" deviation. The FRC also cites the fact that the FCC has set 01 January 2011 as the date for "Narrow Banding" of Business and Public Safety systems under Part 90 of the FCC rules and regulations.

Proposed rule changes by the FRC are:

1. FRC will only coordinate "Wide Band" repeaters on those frequencies that were previously allocated for wide band repeater use in the FRC 144-148 and 430-450 MHz Band Plan prior to 01 January 2010.

2. No new "Wide Band" coordinated frequencies will be issued after 01 January 2014.

3. FRC <u>recommends</u> that all existing "Wide Band" repeaters be changed to "Narrow Band" (2.5 kHz deviation) by 01 January 2020. Renewal of wide band coordination after that date will depend on proof of sufficient need to serve legacy wide band users.

4. FRC will coordinate "Narrow Band" repeaters on any frequency allocated for repeaters in the FRC Band Plan in the 144-148 and 430-450 MHz bands

5. FRC will only issue a new or modified coordination on the newly created pairs provided the proposed system is Narrow Band FM with 2.5 kHz or less deviation. In addition there must be a minimum 30-mile adjacent channel separation.

(From FRC web site)

All we ask is to be let alone. – Jefferson Davis

-- NRA'S 139TH BIRTHDAY --

The Yavapai ARC will operate K7NRA 17 November from the Gunsite Academy's 2000-acre campus north of Prescott, Arizona to recognize the 139th birthday of the National Rifle Association. The station will be active from 1500 – 2300 GMT on 7.250, 14.250 and 21.335 MHz. All hams are encouraged to participate, especially NRA members and Gunsite alumni. QSL via K7NRA with business size (#10) SASE.

(From the American Rifleman, November 2010)

-- THE PROPAGATION NUMBERS --

With Sunspot Cycle 24 slowly showing signs of life, it behooves the HF operator to be informed of potential propagation (or lack thereof) by checking the propagation data available on the Internet via <u>http://dx.qsl.net/propagation</u> or direct from WWV out in Ft. Collins, Colorado at 18 minutes after the hour. These data are updated every three hours, with the values for the current day given at 2118 GMT. The numerical indices and data follow the format:

- Solar Flux Index for the day
- Estimated Boulder A Index
- Estimated Boulder K Index
- Data on current conditions, e.g., major flares, geomagnetic storms, stratwarm conditions, satellite proton events, etc.
- Forecast for the next 24 hours

The Solar Flux Index is measurement of the Sun's radio noise at 2750 MHz (10.7 cm), providing a proven analog of energies that excite both the E and F layers of the ionosphere. The SFI relates to sunspot activity approximately as per:

SFI	Sunspots
68	None
77	10
83	20
90	30
104	50
135	100
158	130
180	160

The Boulder A Index, a measure of geomagnetic field activity on a scale of 0 to 400, is derived from eight 3-hour K indicies recorded at Boulder, Colorado each day. The daily A index is known at 2400 GMT and is first reported in the 0000 GMT update.

The Boulder K Index, on a scale of 0 to 9, is derived from magnetometer readings at the Table Mountain Observatory north of Boulder. The K Index is a measure of variation of the Earth's magnetic field from quiet conditions, and is read and reported every three hours. The use of similar data from other international stations yields the *Planetary K Index*.

а
0
3
7
15
27
48
80
140
240
400

The terms used to describe the Earth's geomagnetic activity are related to the A and K indices, as per:

Term	A Index	Typical
	<u>Range</u>	<u>K Indices</u>
Quiet	0-7	<u><</u> 2
Unsettled	8 – 15	<u><</u> 3
Active	16 – 29	~ 4
Minor Storm	30 – 49	4 - 5
Major Storm	50 – 99	<u>></u> 6
Severe Storm	100 – 400	<u>></u> 7

The Boulder data are good indicators of which HF bands and paths may be open, as per:

A muex	Comments	
<u>Range</u>		

8 – 15 Unsettled, Good conditions

- 16 29 Heralding a Storm
- 30 49 Minor Storm, No polar path

> 50 Major storm, No paths open

(From *Wikipedia* and *Miniprop Plus*, Sheldon Shallon-W6EL, c. 1985-1992)

-- L.A. COPPER THIEF ELECTROCUTED --

A man trying to steal copper wire from a vacant building in a Los Angeles, CA, neighborhood was electrocuted 23 October. He tried to cut through a power distribution site he apparently thought was deactivated but was still alive. This occurred at an electrical vault which then caught fire and exploded, knocking out power until the evening. (From Amateur Radio Newsline[™] Report 1733, 29 October 2010)

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2 Breakfast @ Peach's, <u>+</u> 7:30 AM TARC Meet- ing @ 6 PM, Venice Library	3 QCWA Lunch, 11:30 AM @ Denny's in Sarasota, TARC DX Net 8 PM, W4AC Repeater	4 TARC Emergency Net @ 7:30 PM, W4AC Repeater 146.805	5 Breakfast @ Peach's, <u>+</u> 7:30 AM	6
7	8 DARN Emer- gency Net @ 11 AM. Starts on W4AC Repeater 146.805	9 Breakfast @ Peach's, <u>+</u> 7:30 AM TARC Net @ 7:30 PM, 146.580	10 TARC DX Net 8 PM, W4AC Repeater 146.805	11 TARC Emer- gency Net @ 7:30 PM, W4AC Repeater 146.805	12 Breakfast @ Peach's, <u>+</u> 7:30 AM	13 TARC VE Session @ 10:00 AM, Venice Public Library
14	15	16 Breakfast @ Peach's, <u>+</u> 7:30 AM TARC Net @ 7:30 PM, 146.580	17 TARC DX Net 8 PM, W4AC Repeater 146.805	18 TARC Emer- gency Net @ 7:30 PM, W4AC Repeater 146.805	19 Breakfast @ Peach's, <u>+</u> 7:30 AM	20 Cocoa, FL Hamfest Coral Gables, FL Hamfest
21	22	23 Breakfast @ Peach's, <u>+</u> 7:30 AM TARC Net @ 7:30 PM, 146.580	24 TARC DX Net, 8 PM, W4AC Repeater 146.805	25 TARC Emer- gency Net @ 7:30 PM, W4AC Repeater 146.805	26 Breakfast @ Peach's, <u>+</u> 7:30 AM	27 Okeechobee, FL Hamfest
28	29	30 Breakfast @ Peach's, <u>+</u> 7:30 AM TARC Net @ 7:30 PM, 146.580				

November 2010

NOTE: If the W4AC Repeater is inoperative, nets scheduled for activity on the repeater will be held on the simplex frequency of 146.580 MHz. Thanks for your cooperation.

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	Applica	tion Date_	
Please check activity inter	rests: Ass't Net Control_	_, RFI/TVI, VE Testing, T	[raining,]	Packet, RTTY,
Computers, DXing,	Contests, Field Day,	Publicity, Emergency Com	munications	, Special Events,
VHF/UHF, SSTV, A	TV_, Repeater_, Echo	Link, Other (specify)		
Voluntar	y Contribution to the Tan	niami ARC Scholarship Fund _		

Single Member @ \$15.00/year ____, Family Membership @ \$20.00/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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2	2010 TARC Officers
President:	Stew Haag-W4MO
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Secretary:	Jack Sproat-W4JS
Treasurer:	Don Jansen-KI4VGE
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	Jon Hamlet – W4ZW
	Jack Gaddas-KY1Z
	Bob Avrutik-N1RA