DELTA AMATEUR RADIO CLUB

SPARKS

P.O. Box 750482

Memphis, Tennessee 38175-0482

Volume 18

August 2012



Welcome to the Delta Amateur Radio Club!

Visit our home on the web at: http://www.deltaclub.org

W4BS

REPEATER SYSTEM

146.820^{-107.2} 147.360^{-107.2} 224.420 443.200

NEXT CLUB MEETING

DATE: August 14, 2012 (2nd Tuesday of each month)
PLACE: Ellendale Church Of Christ, 7365 Highway 70

Memphis, TN (1½ miles north of Hwy. 64 – Stage Road)

TIME: 7:00 PM

PROGRAM: "Winlink" - to be presented by Pat Lane

Presented By: David Campbell KD4NOQ

VE TESTING: Don't forget the monthly Volunteer Examiner testing session. Registration begins at 5:30 PM and testing begins promptly at 6:00 PM. Please remember to bring two (2) forms of identification and copies of any existing licenses or CSCE's you might have. Please be on time for registration, as you will not be allowed to enter the testing session after 6:00 PM. This is to allow our volunteer VE team to finish in time to attend the club meeting. For more VE testing information, please contact:

Bill Stevens, WC9S, VEC Phone: 901-603-3448 Email: wc9s@att.net

PRESIDENT'S CORNER

By: Rosalinda Melena WN2V

Please see the attached pdf "President's Corner" from Rosalinda. I could not insert the entire pdf file into Sparks so this is the only way I have of distributing it to everyone.

Thanks.

Kenneth Laseter KI4AOH

The ARRL Herb S. Brier Instructor of the Year Award

Congratulation to our own Joe Lowenthal, WA4OVO, Director of Training for Delta Amateur Radio Club, who was named the recipient of the 2012 Herb S. Brier Instructor of the Year Award. The ARRL "Board noted that Lowenthal has a demonstrated record as an outstanding instructor for Amateur Radio classes, with

hundreds of students benefitting from his expertise in the classroom and generous mentoring." There have been 290 new hams over the last 5-1/2 years as a result of Joe's classes since January 2007.

Herb S. Brier, W9AD, long-time CQ Novice Editor, represented the spirit of effective, caring Amateur Radio instruction. The ARRL, in conjunction with the Lake County (Indiana) Amateur Radio Club, sponsors this award in his memory to recognize the very best in volunteer Amateur



Joe Lowenthal WA4OVO making introductions for students in Tech Class 2-08 at the VA Medical Center Memphis.

Photo by Bill Stevens KI4TQA (now WC9S)

Radio instruction and recruitment.

Joe will receive an engraved plaque and a cover letter presented by ARRL Delta Division Director David Norris K5UZ, coverage in QST and/or on the ARRL website, and ARRL publications of a value up to \$100.

TREASURER'S REPORT

Submitted By: Rick Tillman WA4NVM

Beginning Balance	as of July 1, 2012		\$9,058.47
	Evnances		
	Expenses		
David Gilbert	Meeting Refreshments		\$12.56
Hay Co.	ARRL Liability Insur.		\$200.00
MARA	Field Day Food		\$150.00
		Total Expense	\$362.56
		SubTotal	\$8,695.91
	Income		
Membership Dues	Year 2012		\$65.00
Huntsville Bus Ticket	PreSale		\$910.00
Donation			\$30.00
Tickets	November Drawing		\$80.00
Club Patch			\$15.00
		Total Income	\$1,100.00
Ending Balance	as of July 31, 2012		\$9,795.91

Submitted by Rick Tillman WA4NVM

BOARD MEETING MINUTES

July 3, 2012 - Presented by: Tom Raggett KJ4LMH Secretary

Present at the meeting: Rosalinda Melena, David Gilbert, Bill Stevens, Joe Lowenthal, David Campbell, Steve Smith, Tom Raggett, Rick Tillman.

- 1. Rosalinda called meeting to order.
- 2. Board approved the Treasurer's report. It was noted that Delta's part of field day expenses was \$150.
- 3. David Campbell discussed programs for July and August. David was going to ask Pat Lane to discuss WinLink for the August program. It was agreed that the film concerning the history of the 1812 New Madrid earthquake would be shown at the July meeting.
- 4. Joe Lowenthal discussed the bus trip to the Huntsville Hamfest. Price increases to \$70 after August.
- 5. At the time of the meeting there were 28 seats sold.

- 6. Estate Sales- There is still equipment left from the estate sales. Donations are continuing to come in. Also noted, the MED donated some used radios to the DARC.
- 7. Training- New class started on July 1. There are 25 students with 2 more to be added at a later date.
- 8. Discussion concluded and meeting was adjourned.

GENERAL CLUB MEETING MINUTES

July 10, 2012 - Presented by: Tom Raggett KJ4LMH

- 1. President Rosalinda Melena called meeting to order.
- 2. Customary introductions were done.
- 3. Minutes were approved by general meeting. Bill Covington made motion to approve and Ham Hilliard seconded.
- 4. Rick Tillman presented Treasurer's report. Ham Hilliard made motion to approve and Jeff Krause seconded.
- 5. Testing report given by Bill Stevens noted that there were 2 new generals and 1 new technician.
- 6. Joe Lowenthal reported that there was a new training class, with 24 in the class and 26 expected by the end of the class.
- 7. Bill Stevens reported that there were still items left from the estate sales. He also noted that other estates are asking our help in selling items.
- 8. It was reported that there had been positive feedback from Field Day. 800 contacts were made. DARC contributed \$150 for expenses.
- 9. Rosalinda asked for new business, there was none.
- 10. Joe Lowenthal reported on the status of the Huntsville bus trip. Price goes up on August 7 to \$70.
- 11. Program was presented. The film on the 1812 New Madrid earthquake was shown.
- 12. Drawing was held, NF4H was selected.
- 13. Ham Hilliard made motion to adjourn, Bill Covington seconded.
- 14. Meeting adjourned.

AMATEUR PACKET UPDATE

By: James Butler - KB4LJV

Many times we look for good software for ham radio applications. One function that we look for is satellite tracking software. We might want to track a microsat or ISS space station so we can listen in or work them. One very nice program you can use for this is Home Planet. This software is in the public domain and is free to download and distribute. The program will allow you to set your location and track the moon, planets and any satellite want. The program is set up to use the 2 line keplerian elements to give the accurate location. The latest elements are available from http://www.amsat.org/amsat/ftp/keps/current/nasa.all Make sure to use the latest elements for the most accurate orbit prediction. The program works well and does a good job of keeping track of satellite locations. The web address to get information and a free download of the program is http://www.fourmilab.ch/homeplanet/.

AMATEUR HARDWARE UPDATE

By: James Butler - KB4LJV

I keep on collecting the DVD cases for 50 and 100 DVD packs. I have taken one of the cases and used it for mounting one of my old straight keys in. By cutting out the middle stacking rod and cutting a slot on the outside cover of the case I made a case to mount my favorite SPEEDX Morse code key in. The opening allows the arm to stick out with the rest of the key inside to protect it from dust and dirt. The DVD protector housing works well to keep the key clean and allows me to still operate with it in the case. You can buy DVDs with these cases that are clear or tinted depending on the look you want. Save them as they come in handy for these types of projects.



2012 TRAINING CLASSES

Submitted by: Joe Lowenthal WA4OVO, Director of Training

There is no charge for classes, but the student is responsible for the purchase of the license manual and the \$15 ARRL FCC examination fee.

Licenses Earned in 2012 from Delta Classes
49 Technician
10 General
6 Extra

CLASSES PLANNED

If you are interested in any of the classes, send an email to Joe Lowenthal at <u>wa4ovo@arrl.net</u> with your name, email address, and phone number, preferable cell with subject line of the class you are interested in.

None

CLASSES IN PROGRESS

Technician Class 4-12 – July 2-August 6, 2012

Tech Class 4-12 began on July 2nd at Lord of Life Lutheran Church, 6865 Poplar Pike. The first night began with 25 students entering the world of ham radio. Repeater Basics, Echolink and APRS were introduced on August 6th so the students could feel more comfortable with a radio. Instruction was specific to the Wouxun radio. The class ended with 21 students.

Joe Lowenthal WA4OVO was the primary instructor with Pat Lane W4OQG providing added expert knowledge on antennas and feedlines. Bill Stevens WC9S, Rick Tillman WA4NVM, Richard Martin K4DXF, and Dwayne Love N5XUL were the Elmers.

Congratulations to Dan Gray KF5RDR who earned his Technician license at the July Delta Club test session and then earned his General Class license when the class tested. Congratulations to Tammie Love KK4KSP who earned her Technician license at a Jackson TN test session. Congratulations to Barri Munday KK4KUI,



Tech Class 4-12 left to right of tables front to rear: 1st row-Derek Mitchell to left of projector, Gene Ballin, Jimmy Jackson, Jeffrey Collins; 2nd row- George Freeman, Donna Clever, Jason Kyle, Ronnie Smith, Alan Myrvik, Carrie Webb, Donna Webb, Brian Mink; 3rd row- Broderick Nichols, Dorothy Nichols, Paula Huntspon, Evelyn Thomas, Sonya Pleasants, Barri Munday, Tammie Love, Mitch Waits; 4th row- Susan Walters, Bucky Walters, Dwight Harris; not shown-Steven Wiley, Dan Gray; absent-Michael Duke, Julie Ray, Sam Teel

Ronnie Smith KK4KUJ, Bucky Walters KK4KUK, Susan Walters KK4KUL, Broderick Nichols KK4KUM, Michael Duke KK4KUN, George Freeman KK4KUO, Jason Kyle KK4KUP, Carrie Webb KK4KUQ, Donna Webb KK4KUR, Brian Mink KK4KUS, Jimmy Jackson KK4KUT, Gene Ballin KK4KUU, Donna Clever KK4KUV, Steven Wiley KF5RLA, and Jeffrey Collins KF5RLB who earned their licenses at the July 30th test session.

The ARRL FCC testing was provided by the Delta Club VE Team led by VE Liaison Bill Stevens WC9S. He was assisted by VEs Rick Tillman WA4NVM, Jeff Krause AJ4GY, Stacy Krause KJ4MDA, Ham Hilliard W4GMM, Henry Leggett WD4Q, Ray Turner N0ELE, and Joe Lowenthal WA4OVO

CLASS INFORMATION

Technician Class

If you are interested in the first amateur license class, Technician, please let us know by sending an email to wa4ovo@arrl.net with subject line "Technician Class" and give name, email address, and a contact phone number (preferably a cell number). Or you can go to the Delta Club webpage www.deltaclub.org click on Training Classes; then click on Technician Class to send an email, or call at 901-683-2701. We usually publish class schedules a month or two in advance. You will be notified by email or phone when the class is set if you send an email informing us of your desire to be in a class.

There is no charge for the class, but registration is required. Advanced study of *The ARRL Ham Radio License Manual*, *product #0977/ISBN 978-0-87259-097-7* (red-brick colored cover) is strongly suggested as well as study of the 396 question and answer Technical Class License question pool. Barnes & Noble Booksellers may have this manual. You can purchase it online from www.msars.com, www.arrl.org/catalog or on Amazon.com. The list price is \$29.95 (which includes a CD). The older ARRL Ham Radio License Manual, Second Edition was priced at \$24.95, but did not have a CD.

The current Technician License question pool, which was approved by the NCVEC on February 1, 2010, can be seen at http://www.ncvec.org/page.php?id=356. Testing for this question pool started July 1, 2010.

Practice tests are highly recommended. The www.qrz.com website is free. To access the sample tests, go to www.qrz.com. From the QRZ home page click on RESOURCES in the blue band on the top right. Then click on 2010 Technician Exam Practice Test. When you start answering the questions, it will show you if you answered correctly or not with CORRECT! or SORRY BUT THAT ANSWER IS NOT CORRECT. Statistics are kept below the test question at This Quiz with the number of questions answered correctly and the percentage correct. Also shown is the number of questions answered correctly from the 396 questions of the question pool. It keeps track of your correct answers on subsequent tests. Below the This Quiz line is Questions in This Test, that is a list of the 35 question numbers of the current test. If answered correctly, the question number radio button turns green. If answered incorrectly, it turns red.

There are a number of other free sample-test sites. The following are some other ham radio practice exam sites:

- o www.aa9pw.com
- o http://kb0mga.net/exams
- o http://copaseticflow.blogspot.com/2010/06/technician-class-practice-test-gadget.html
- o www.qrz.com
- o http://www.hamradioclass.org

The 35-question FCC exam will be given at the end of class by a Volunteer Examiner (VE) team. There is a \$15.00 ARRL VEC FCC exam fee.

General Class

If you are interested in a General License Class, please let us know by sending an email to wa4ovo@arrl.net with subject line "General Class." Or you can go to the Delta Club web page www.deltaclub.org; click on Training Classes; then click on General Class to send me an email with name, email address and contact phone, preferably cell number, or call at 901-683-2701. A new question pool became effective July 1, 2011. The new textbook is *The ARRL General Class License Manual, Seventh Edition, item #8119, ISBN 978-0-87259-811-9*. This edition with its question pool is valid through June 30, 2015. Lately, we have been running a combined Technician-General class. You will be notified by email or phone when the class is set.

Basic Electronics Class

The Basic Electronics Class is designed to bridge the electronics-learning gap between the General and the Extra Class licenses. The class textbook is ARRL's *Understanding Basic Electronics, Second Edition*. The suggested calculator is the Casio fx-260 solar calculator, which can be purchased at Wal-Mart for about \$10. There is no exam for this class. The class has been held in the September-November time frame.

If you are interested in the Basic Electronics Class, please let us know by sending an email with name, email address and contact phone, preferably cell number to wa4ovo@arrl.net with subject line "Basic Electronics Class" or call at 901-683-2701. You will be notified by email or phone when the class is set.

Extra Class

If you are interested in an Extra Class, please pre-register by going to the Delta Club web page www.deltaclub.org; click on Training Classes; then click on Extra Class to send an email with name, email address and contact phone, preferably cell number to Joe Lowenthal, WA4OVO, at wa4ovo@arrl.net or call at 901-683-2701. You will be notified by email or phone when the class is set. Classes have been held on Saturdays for 6 or 7 weeks in January and February.

COMPLETED CLASSES

Technician Class 4-12 – July 2-August 6, 2012 General Class 3-12 – March 26 – May 7th, 2012 Technician Class 2-12 – January 21st & February 4th, 2012 Extra Class 1-12 – January 14 – February 25, 2012 Tech Class 2-12 Revisited Troop 457 Merit Badge College – February 11, 2012 Troop 225 Merit Badge Class – February 11, 2012

HUNTSVILLE HAMFEST BUS TRIP August 18, 2012

Submitted by: Joe Lowenthal WA4OVO, Director of Training

DARC is sponsoring a 50-passenger bus to go to the Huntsville Hamfest on August 18, 2012. The fare is \$70. The fee includes entry ticket to the Huntsville Hamfest. There will be bacon, ham or plain biscuit sandwiches, water, sodas, chips, and fruit on the bus going to Huntsville and whatever is left for the trip back.

Cash or checks will be accepted for payment. Make checks payable to Delta Amateur Radio Club. You can also send your check to Joe Lowenthal WA4OVO, 6675 Ashbridge Cove, Memphis, TN 38120. Please include your name, callsign, cell phone number, email address and biscuit choice. Reservations will be on a first come first paid basis. As of writing this message, there are 7 seats available.

The bus will leave Ellendale Church of Christ, 7365 Highway 70, Bartlett, TN at 6:00am on August 18th. A second pickup point will be at Germantown Baptist Church, 9450 Poplar Avenue at Johnson Road, Germantown, TN at approximately 6:30am. The bus will leave Huntsville immediately after the 4pm door prize drawing and return to Germantown Baptist Church approximately 7:45pm and Ellendale Church of Christ at approximately 8:15pm.

Ellendale Church of Christ has asked us to park in the larger parking lot on the west side of the building to leave the east side open for church activity parking.

The pickup point at Germantown Baptist Church will be on the east side of the church (toward Collierville) near the gym (called the ROC) between the gym and the baseball diamonds to the front.

Joe Lowenthal WA4OVO

wa4ovo@arrl.net Home: 683-2701 Cell: 628-4318

Delta Amateur Radio Club

UPCOMMING EVENT

Please mark your calendars, the **Tour de Collierville** bike ride will be held this year on Saturday, **September 1st.** The ride starts at 7:00 am. If you would like to volunteer to help with the communications please contact John Wood at wws.j@netscape.net.

SPARKS NEWSLETTER & DELTA CLUB INFORMATION

SPARKS is published monthly by the Delta Amateur Radio Club and emailed to club members. All information published in this newsletter is provided as a service. While every reasonable effort has been made to ensure accuracy, the Delta Amateur Radio Club nor its officers assume any liability resulting from errors or omissions. All correspondence may be mailed to:

Delta Amateur Radio Club P.O. Box 342768 Memphis, Tennessee 38184-2768

2012 BOARD OF DIRECTORS

President: Vice-President: Secretary:
Rosalinda Melena – WN2V Richard Martin – K4DXF Tom Raggett – KJ4LMH

901-921-4474 901-372-3722 901-517-0492

<u>ki4zkw@gmail.com</u> <u>k4dxf@att.net</u> <u>traggett@bellsouth.net</u>

Treasurer: Director of Training: Director of Publications:
Rick Tillman – WA4NVM Joe Lowenthal – WA4OVO Kenneth Laseter – KI4AOH
901-268-7047 901-683-2701 901-853-0400

wa4nvm@comcast.net wa4ovo@yahoo.com kmlaseter@laseterinc.com

Director of Programs: Director of Meetings & Special Events:

David Campbell – KD4NOQ David Gilbert – AJ4LV 901-388-6166 aj4lv@hotmail.com kd4noq@arrl.net

PUBLIC SERVICE EVENTS --- 2012

If you are a coordinator for any of these events, please review the listed information. If it is incorrect or changes need to be made, please provide me with the correct information. Please email corrections to me at $\underline{kmlaseter@laseterinc.com}$.

DATE	EVENT	COORDINATOR	CONTACT INFO.
January 201 15 th	2 Swamp Stompers.	Danny– KJ4FXZ	kj4fxz@arrl.net
February 20 9 th	13 Boy Scout Merit Badge University	Ken – KI4AOH	kmlaseter@laseterinc.com
March 2012 None			
April 2012 28 th	March for Babies (March of Dimes).	Bob – KF4NDH	kf4ndh@bellsouth.net
28 th	Tour de Cure	Denise – KJ5DG	kj5dg.denise@gmail.com
May 2012 19 nd	Memphis in May Triathlon.	Ned - KA4BLL	ka4bll@arrl.net
September 2 8 th & 9 th	012 MS 150 Bike Ride	Darrell - KK4D	kk4d@xipline.com
December 20 1 st	St. Jude Marathon	Roger – WR4R	wr4r@bellsouth.net
1 st	Bartlett Christmas Parade	Dennis – KJ4BDU	dcvv3714@aol.com
TBA	Juvenile Diabetes Research Foundation Walk	Kathleen - KC0HZU	(No Contact Information)

MEMPHIS AREA VHF/UHF NETS

Net Name	Freq. MHz	Local Time	Day
Mid-South Barefooted Bullfrog net	146.535	7:30p	Daily
Delta Club Traffic and Information Net	146.820 - (107.2)	8:00p	Daily
Secret Service Net	224.780 -	8:30p	M
Elmer Net	147.030 + (107.2)	9:00p	M
The Short Winded Net	146.850 -	8:30p	Tu
MedMERS Net	146.730 - (107.2)	12:00p	W
Six Meter Tech Net	53.01 -	8:30p	\mathbf{W}
The 440 Net	443.200 + (107.2)	9:00p	\mathbf{W}
Collierville CERT Net	444.125 + (107.2)	7:00p	W
TAC 2 Net	224.420 -	8:30p	Th
ARES Training Net	146.880 - (107.2)	9:00p	Th

TENNESSEE HF NETS

Net Name	Freq. MHz	Local Time	Day
Tennessee CW Net	3.563	7:00p	Daily
Tennessee Slow CW Net	3.682	7:30p	T-Su
Tennessee Early Morn Phone Net	3.980	5:40a	M-F
Tennessee Morning Phone Net	3.980	6:45a	M-F
Tennessee Evening Phone Net	3.980	6:30p	T-Su
CUSEC (Center for United States Earthquake Consortium)	3.810	As needed	
CUSEC (Center for United States Earthquake Consortium)	7.180	As needed	

DELTA CLUB 146.82 NET PREAMBLE (Rev. 2)

GOOD EVENING: This is calling this session of the DELTA CLUB'S TRAFFIC AND INFORMATION NET. This net is affiliated with the ARRL and the NTS and is organized to pass traffic in and out of the mid - south area, in addition to providing information about club events and amateur related topics. This net meet nightly at 8:00 p.m. CT except the second Tuesday of the month on the 146.82 W4BS repeater and requires a pl. tone of 107.2 Hz. All stations will refrain from transmitting without being acknowledged by net control.
All licensed amateurs are encouraged to participate.
Before we begin, is there any station with emergency or priority traffic? During this net should any station have emergency or priority traffic please use a double break followed by your call sign.
Is there an NTS Liaison station on frequency?
Is there any station wishing to list formal written traffic?
Does any station have announcements for the net? (If anyone asks to make an announcement after you finish handling the ones taken here ask them to hold unti after the monolog. Eliminate the following sentence unless there are announcements.) Does any station have any questions or need any fills?
We will now take check-ins. Are there any stations that are mobile, on battery power, or needing to leave early, if so please come now phonetically with your suffix only and please remember to spread them out?
We will now take check-ins phonetically by suffix only if your suffix begins ALPHA through HOTEL pleases come now and remember to spread them out.
We will now take check-ins phonetically by suffix only if your suffix begins INDIA through KEEBECK please come now and remember to spread them out.
We will now take check-ins phonetically by suffix only if your suffix begins ROMEO through ZULU please come now and remember to spread them out.
The DELTA CLUB meets the second Tuesday of each month at the ELLENDALE CHURCH OF CHRIST 7365 HWY 70 in Bartlett at 7:00 P.M. V. E. Registration begins at 5:30 P.M. with testing starting promptly at 6:00 P.M. A copy of your license and CSCE is required. For V. E. Information contact Bill, WC9S at 603-3448. For membership information contact Tom, KJ4LMH at 517-0492. For training information contact Joe WA4OVO at 683-2701.
Are there any additional announcements?
We will now take late check-ins from anywhere in the alphabet ALPHA through ZULU please come now and spread them out.
Is there anything that this station or the net can do for anyone before we close?
This is now closing this session of the DELTA AMATEUR RADIO CLUB'S Traffic and information net and would like to thank all stations for checking in tonight. And would like to ask that everyone to check in tomorrow night at the same time. GOODNIGHT AND 73: THE NET IS NOW CLOSED

DELTA CLUB ADVERTISEMENTS

See Advertisement Order Form for Instructions.

DELTA AMATEUR RADIO CLUB P.O. Box 342768 Memphis, TN 38134-2768 DARC Meeting: Second Tuesday of every month at Ellendale Church of Christ 7365 Hwy 70, Bartlett TN W4BS REPEATER SYSTEM 146.82- 147.36+ (107.2Hz tone) 224.42- 443.20+ (107.2Hz tone)	Savage Commercial & residential ceramic, quarry, marble & slate tiles Company (901) 363-9607 or Fax (901)365-1992 5579 Federal Avenue Memphis, TN 38118-7918 35 YEARS of EXPERIENCE

ADVERTISEMENT ORDER FORM

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Delta Amateur Radio Club

	Sparks Advertisi	ng Order Form	Date:
CHATEUR RADIO CLUB		Name:	
Call Sign:	Phone:	Email:	

TO PLACE AN ORDER

- 1. Mark the box below indicating the ad size you are purchasing and the three (3) months you want your ad to appear in Sparks.
- 2. Submit this completed order form, your camera ready ad, and your check payable to Delta Amateur Radio Club (DARC) to Kenneth Laseter KI4AOH via mail at 684 Oasis Cove, Cordova, TN 38018 or give it to him at the monthly Delta Club meeting. Camera ready means that the ad you submit is exactly as you want it to appear in your ad and fits within the dimensions specified below. Ads may be submitted in gif or jpg format or submitted as a hard copy and we will scan and place your ad for you.
- 3. Your ad order must be received on or before the first Tuesday of the **month before** you want it to appear in Sparks.

SPARKS ADVERTISING											
F	FULL PAGE HALF PAGE			¹ / ₄ PAGE			BUSINESS CARD				
\$50.00 \$25.00 for 3 Months 7" w X 8 ½" h 7" w X 4" h		\$15.00 for 3 Months 3 ½" w X 4" h		\$10.00 for 3 Months 3 ½ " w X 2" h							
Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
2012	2012	2012	2012	2012	2012	2013	2013	2013	2013	2013	2013