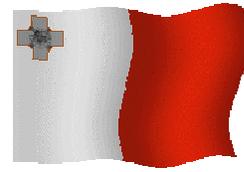


MARL



MALTA



Magazine by MARL

For Maltese and Gozitan  
Radio Amateurs

Number 28

July 2008



## Smoking is prohibited **Tpejjipx** at the Centre No Smoking

### From the Editor

Friends,

I welcome you to another issue of this magazine for March 2008, which is issue 28 of this series.

As I have told you before, it will be good to have in writing all that has happened for history, both by Maltese radio amateurs and our Organization. As I have also previously told you, this magazine is not the first one that **MARL** is issuing, but in previous years it used to issue other magazines.

One of my thoughts is that I will see from where I can find a copy of these magazines so that I can make a copy so that we will be able to put them on our internet webpage so that everyone will have access to them.

Therefore, anyone who has a copy of some of the magazines that were issues before this series please pass it on to me so that I will be able to make a copy and then I will give it back to you. I thank you beforehand for your cooperation.

As a help to those who might interest themselves to have a copy of everything that happened on the **MARL Yahoo** group, in this magazine you will find an internet link from where you can download a programme with which you can download all the e-mails sent on the group in a few minutes on your computer.

Here I would like to bring attention of those who without thinking start to make unfounded allegations or send e-mails to each other as has happened on a number of things during the years.

Such things especially when unfounded allegations are made or if there is personal pique do not cause damage only to those who make them or send them by e-mail, but also cause damage to our Organization.

Some time ago I had given you the radio amateurs code that every radio amateur should observe. Whoever has not downloaded this magazine can download it from  
<http://www.9h1mrl.org/newsletter/MARL26E.pdf>  
<http://www.9h1mrl.org/newsletter/MARL26M.pdf>

Read this code and before making any allegation or send an e-mail ask yourself if you are worthy to be called a radio amateur according to this code.

I hope that you find the information in the magazine useful to you and if you have some article please leave it in my **QSL** box.

**Lawrence**  
**9H1AV / 9H9MHR**

## Italian Prefixes

I have sometimes given you how prefixes are used in different areas of a country so that one will know with which area s/he is talking with. Today I am going to give you the Italian prefixes so that one will know from which area the person s/he is talking with, is from.

Region	Prefixes	Notes
Piemonte	I1, IK1, IZ1, IW1AA-IW1OZZ	
Valle d'Aosta	IX, IW1AA-IW1OZZ	
Liguria	I1, IK1, IZ1, IW1PA-IW1ZZZ	
Lombardia	I2, IK2, IZ2, IW2AA-IW2ZZZ	
Veneto	I3, IK3, IZ3, IW3EA-IW3PZZ	
Trentino Alto Adige	IN3, IW3AA-IW3DZZ	
Friuli Venezia Giulia	IV3, IW3QA-IW3ZZZ	
Emilia Romagna	I4, IK4, IZ4, IW4AA-IW4ZZZ	
Toscana	I5, IK5, IZ5, IW5AA-IW5ZZZ	IA5 Toscan Islands of Capraia, Cerboli, Elba, Formica di Burano, Formiche, Formiche di Grosseto, Giannutri, Giglio, Gorgona, Montecristo, Pianosa, Scoglio d'Africa)
Marche	I6, IK6, IZ6, IW6AA-IW6LZZ	
Abruzzo	I6, IK6, IZ6, IW6MA-IW6ZZZ	
Puglia	I7, IK7, IZ7, IW7AA-IW7XZZ	IJ7 - Cheradi Archipelago IL7 – Tremiti Islands (Caprara, Pianosa, San Domino, San Nicola)
Basilicata (prov. Matera)	I7, IK7, IZ7, IW7YA-IW7ZZZ	
Basilicata (prov. Potenza)	I8, IK8, IZ8, IW8ZA-IW8ZZZ	

<b>Campania</b>	<b>I8, IK8, IZ8, IW8AA-IW8OZZ</b>	<b>IC8 – Neapolitan Islands (Capri, Ischia, Li Galli, Procida, Vivara)</b>
<b>Calabria</b>	<b>I8, IK8, IZ8, IW8PA-IW8WZZ</b>	
<b>Molise</b>	<b>I8, IK8, IZ8, IW8XA-IW8YZZ</b>	
<b>Sqallija</b>	<b>IT9, IW9AA-IW9ZZZ</b>	<b>- Eolie Islands (Alicudi, Basiluzzo, ID9 Filicudi, Formiche, Lipari, Lisca Bianca, Panarea, Salina, San Pietro a Canna, Stromboli, Strombolicchio, Vulcano, Dino) IE9 – Ustica Island IF9 – Egadi Islands (Asinelli, Favignana, La Formica, Levanzo, Maraone, Marettimo) IG9 - Pelagic Islands (Lampedusa, Lampione, Linosa) IH9 – Pantelleria Island</b>
<b>Sardinja</b>	<b>IS0, IW0UA-IW0ZZZ</b>	<b>IM0 – Sardegna Islands (Asinara, Bisce, Budelli, Carbonara, Caparra, Cavoli, Corcelli, Cretacci, Foradada, Il Catalano, Il Toro, Il Vitello, La Maddalena, La Vacca, Mal di Ventre, Molara, Mortorio, Nibani, Ogliastra, Pan di Zucchero, Piana, Qirra, Razzoli, Rossa, Ruglia, Sant'Antioco, San Pietro, San Macario, Santa Maria, Serpentara, Soffi, Spargi, Su Giiuseu, Tavolara)</b>
<b>Lazio</b>	<b>I0, IK0, IZ0, IW0AA-IW0PZZ</b>	<b>IB0 – Ponzian Islands (Palmarola, Ponza, Scoglio della Botte, Santo Stefano, Ventotene, Zanone)</b>
<b>Umbria</b>	<b>I0, IK0, IZ0, IW0QA-IW0TZZ</b>	

The **IQ** prefix is reserved for legally constituted radio amateur sections and is also given to Regional Committees and groups.

The **IR** prefix is given to automatic repeaters without operators.

**II, IO, IP, IR, IU, IY** prefixes are reserved for activities or events of particular importance for the duration of the activity or event.

This information is found on the **ARI** internet webpage on <http://www.ari.it> and I hope that you will find it useful.

Once we are on Italy, it is swell that whoever chases certificates should know that there is a certificate known as the Lioness of Italy Award. This is being held to celebrate the ARI Brescia section anniversary.

The certificate is issued to radio amateurs and listeners on short wave who acquire the required number of QSO's. The period for this certificate is between 24 August and 14 September on all bands.

The number of required QSO's or stations hears is 10 from Brescia for European stations and 5 for DX stations. The certificate is free to all stations that request it up to October 2008.

The request should include a summary of the log, preferably in electronic format, by electronic post to the Awards Manager, **IZ2FOS** [iz2fos at rblob.com](mailto:iz2fos@rblob.com)

All those who like to collect certificates should not lose this occasion to acquire another certificate.

**Lawrence**  
**9H1AV / 9H9MHR**

### **136kHz**

As you know, this frequency is to be given to us at the beginning of next year, although we are trying to get it before. Therefore we thought of giving you some circuits so that whoever wants to get ready for it can do so.

Today we are going to give you a transmitter circuit by DF3LP that one can make so that when we have permission s/he can operate on this frequency. This has a power of 50 Watts and if you use two IRF630s in parallel in the final you will have 100 Watts.

It should be said that in Germany, German radio amateurs had been granted permission to use this frequency in January 1999. Therefore, if we are given permission in January 2009, we will be 10 years backwards after the Germans.

This circuit works by two quartz crystal oscillators, one of them as a VXO and their difference of around 136 kHz is taken. The 136 kHz frequency is filtered and amplified by an emitter follower, passed on to another stage where the frequency is turned into a square wave, then to another stage which switches it to the final amplifier that works in class D.

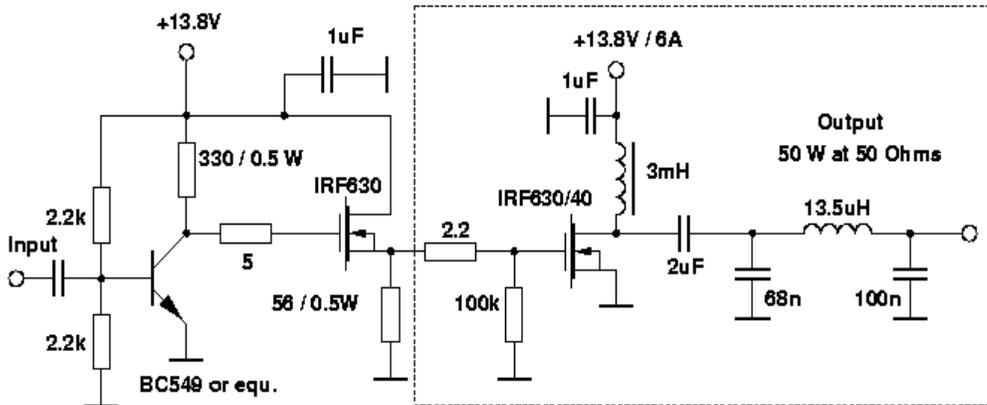
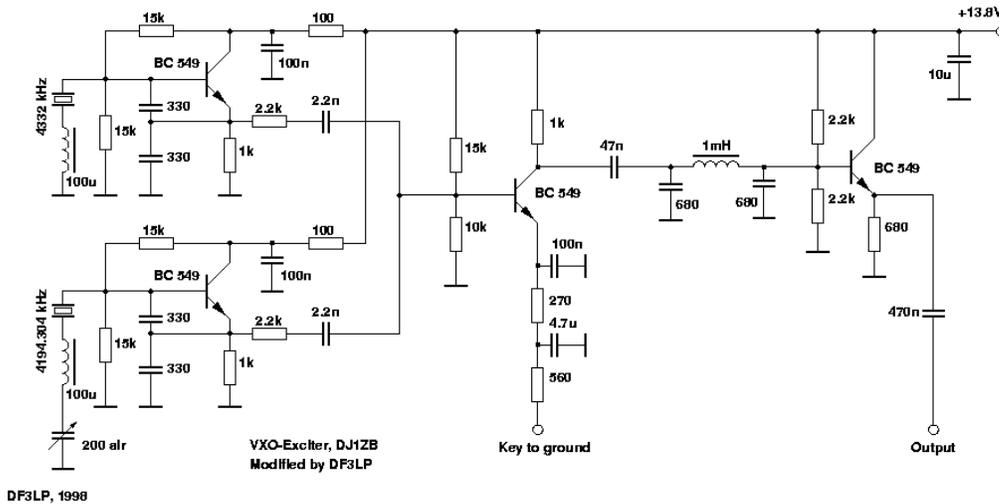
The components are soldered on the simple printed circuit copper and thus you can change the circuitry and experiment with it as you may want. The 3mH Choke is 30 turns on a toroid. The Pi filter coil uses at least a 2mm wire (2.5mm, 23.5 turns closed spaced 45mm diameter). The capacitors are polypropylene 1000VDC/400VAC)

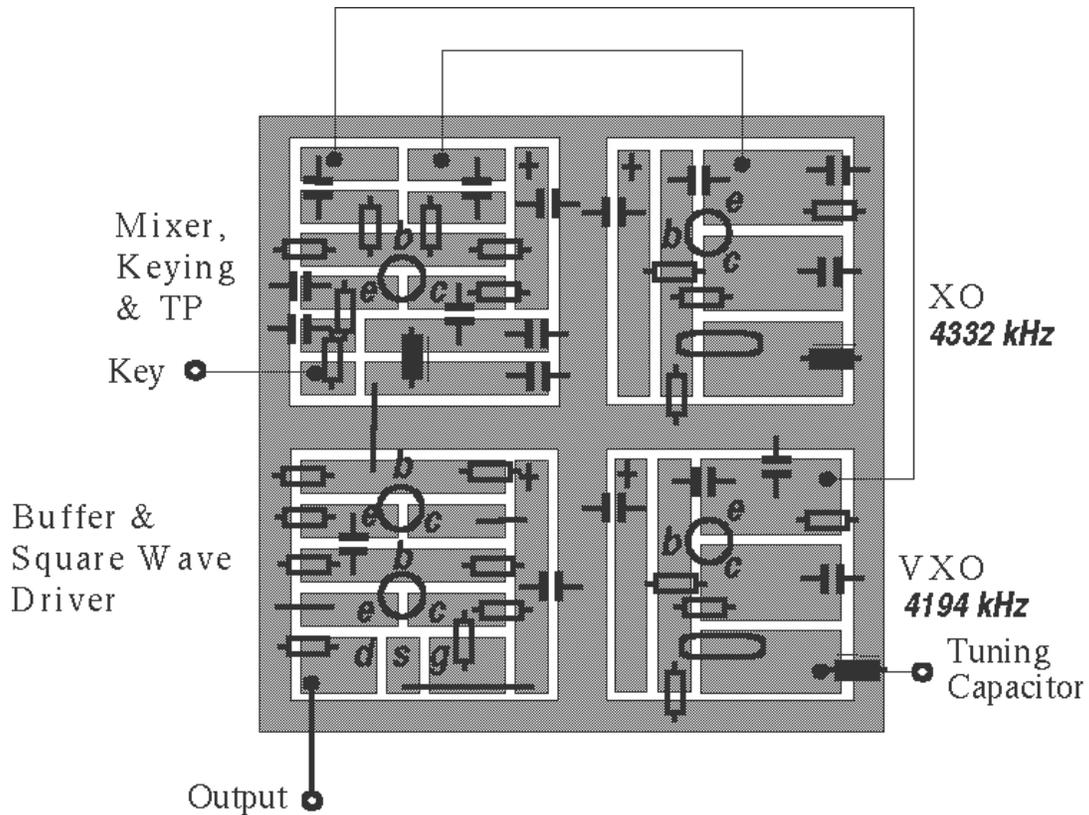
DF3LP also used 3 IRF630 each with its own 4.7 ohms gate resistor, while the first PI capacitor was increased from 68nf to 82nf as well as increasing the coil by 2 turns. Adjust the turns of the coil for the best waveform at the output on an oscilloscope. With three IRF630 he obtained an output of 130 Watts for an input of 160 Watts (10A/16V) an efficiency of more than 80%.

It is recommended that another pi filter be used with a 50-ohm input and output to filter the output ( $C_{in} = 15\text{nf}$ ,  $L1 = 53\mu\text{H}$ ,  $C_{middle} = 33\text{nf}$ ,  $L2 = 53\mu\text{H}$ ,  $C_{out} = 15\text{nf}$ ). You can use an Amidon T200-2 toroid, but DF3LP prefers toroid-less coils. These are 35 closed-spaced turns of 12 mm wire 50mm diameter on a polyacryl form.

IRF640's are better and if you want more output by using a higher voltage use the IRF840. The avriation in frequency by the components used is around 2.5kHz.

Since the circuits appear small I suggest you copy them on a word document, make the page landscape and enlarge them.





### Nickel Cadmium Batteries

Today everyone has some piece of equipment that uses batteries, especially that apparatus or better small handheld transceivers on VHF and UHF that permit us to talk from places where there is no electricity supply.

One of the problems is what quality of battery should we use if we want to keep this apparatus operating for a long time as well as to keep it with the batteries fully charged to use quickly if the need arises.

It is therefore good to see something about the batteries used in such apparatus and what we can do for it to serve us well.

Previously the majority of the apparatus that used to come with batteries that could be charged used to use batteries known as Nickel Cadmium, or Nicads for short. These are not the best batteries that we can use when there have been other developments and we have other qualities of batteries.

One of the problems with Nicads is that if they are not selected carefully, the cells in the battery may not be all of the same capacity, although the manufacturers normally choose them to be as near as possible.

One of the effects of individual cells not having the same capacity is that if we use it and discharge it too much, the stronger cells reverse charge the weaker cells. In other words, the positive terminal becomes the negative and the negative becomes positive.

Another thing that Nicad batteries suffer from is that they do not like to be charged when they are not fully discharged. This leads to the formation of crystals that shorts the cell internally. One can become aware of this because there will be no voltage between the positive and negative terminals of the cell and if you check it you will find it shorted.

Although one can pass a heavy current for a short time through the cell to rapture these crystals like the rapture of a fuse and recharge the cell, they have a tendency to form again and you will have to do it every time or change the cell.

These types of batteries are best used when we want to use the apparatus until they are nearly discharged, but not fully, and then recharge them to full capacity. It is better that they are frequently used and not left idle.

This means that if we keep another battery charged but never use it and simply leave it so that when the one we are using discharges then we use it we will not have much success because these batteries should be used and not left charged until we need them.

To keep one for these purposes we should use one then the other. We used them until they are nearly fully discharged and recharge them immediately not leave them there and recharge them when we remember.

One of the problems that they suffer from is that if we do not discharge them enough but use them and when we feel like it we charge them even if they are not discharged, they develop what is called a memory.

This is a condition where the battery cannot give its full capacity, but will discharge quickly and we will have to recharge it frequently. There is a remedy for this by fully discharging it and recharging it for a number of times until it regains full capacity, but it is better to recharge it when it is nearly fully discharged and not recharge it when we feel like it.

If our apparatus has a box for the batteries we can use other batteries the best ones to use are alkaline. Their shelf life is long and they have greater capacity than Nicads for the same size. We can use them when we do not have the means to charge the batteries, but do not forget that once discharged alkaline batteries have to be thrown away.

Another choice is lead-acid batteries that are small and sealed, as is used in emergency lighting. They are purposely made to be left on float charge and can use either liquid or a form of jelly paste in their cells.

However, they are bigger than nicads and other batteries and we would have to use leads to connect the battery with the apparatus that we want to use.

This extract has been written by **9H1AV** based on information collected by **Christopher, 9H1BW** [christopherlwarren@gmail.com](mailto:christopherlwarren@gmail.com) whom we thank.

**Lawrence**  
**9H1AV / 9H9MHR**

## Interesting Programme

Are you in some yahoo internet group but was not one of the initial members? IS yes, you may not know what messages had been sent to the group before you became a member, although you can read them on the internet webpage of the group.

It is true that you can download each message one by one, but what would you say if you found a programme that downloads them all by itself?

For this purpose there is a programme that does this work. One can download it and install it on the computer and download all the messages of the group at great speed. This programme is called PGOOffline and the main page on the internet from where you will find a link to it is <http://www.personalgroupware.com/>

When you click on the link you are taken to another page where one can download the programme. This is <http://www.personalgroupware.com/downloads.htm> where there is the proper link that is found further down which also has a number of other interesting things that you can download.

The programme can be downloaded directly from this internet link <http://www.personalgroupware.com/groupmanager/PGOffline-2-5-063.exe> It has a number of features, and as an example, you can programme it to download a number of e-mails at certain times and after the programmed time passes it will start downloading automatically.

You can choose to see the e-mails according to a particular subject or see them one after the other. Afterwards you can update the e-mails that were sent because it automatically starts from the last e-mail that it had downloaded.

Here I suggest that if there are many e-mails on the group you download them all at once, because if you set it to download a number every certain time, yahoo will stop you because it will consider it as an attack on the system due to the number of times that it had downloaded e-mails.

In fact, when this happens, although it appears to download e-mails, it will not be downloading anything and tells you that they are blank. If you download them all at once this does not happen, even if there are thousands of e-mails to download from the group.

The same happens if there are many thousands of e-mails on the group. If you exceed around 15,000 e-mails Yahoo cuts you off for a number of hours because it considers it as an attack. What you can do when there are many thousands of e-mails is to download a few hundreds every hour or whenever you go on the internet.

This programme is not free, but it is only 20 US\$. You have a 30-day trial period before you decide whether to buy it or not, but for the prices asked it can be said that it is free for the work it does.

As an example of its speed, I have downloaded the 1,005 e-mails (now 1,009) that there are on the MARL group in less than 3 minutes. You can also have a number of different

groups if you are a member in different groups and the e-mails will be sorted according to the group.

Even if you are in more than one group, the programme updates them one after the other every time it updates them.

I hope that you try it and find it useful.

**Lawrence**

**9H1AV / 9H9MHR**

### Some internet links

Stanford VLF group, research group on very low frequencies on magnetosphere and ionosphere

<http://www-star.stanford.edu/~vlf/>

Useful information page on very low frequencies and project that you can make

<http://www.vlf.it/>

Natural noises recorded on very low frequencies that you can download and listen to

<http://abelian.org:8040/vlf/>

Another useful link on space weather and other information

<http://search.live.com/results.aspx?FORM=DNSAS&q=www.spacxeweather.com%2fglossary%2finspire.html>

For certificate collectors and who have worked a number of stations related to the UEFA Euro 2008 football championships, **USKA (Switzerland)** and **OEVSV (Austria)** are issuing a number of certificates together. You may find details on

<http://eurodiplom2008.oevsv.at>

Another certificate is being given by the Hungarian radio amateurs organization **MRASZ** in commemoration of its 80<sup>th</sup> anniversary of being established. Further details from

<http://www.mrasz.hu/english/diplomak/mrasz80.htm>

I hope that you find these links interesting.

**Lawrence**

**9H1AV / 9H9MHR**

### **Invitation by SSA**

SSA, which is the national organization of Swedish radio amateurs, is inviting radio amateurs to take part in a contest as a commemoration of the 50 year anniversary of the Scandinavian Activity Contest.

This contest is going to be held at the weekend on 20-21 September for **CW** and on the weekend on 27-28 September for **SSB**. The times are between 12.00 and 12.00. That is between midday Saturday to midday Sunday all times being UTC.

Three special certificates are going to be given for this commemoration contest apart from the usual ones. There are going to be Gold, Silver and Bronze.

For a Gold diploma, one has to work 50 Scandinavian stations on 5 frequencies, that is, a total of 250 contacts.

For a Silver diploma, one has to work a total of 250 Scandinavian stations on any frequency.

For a Bronze diploma, one has to work a total of 50 Scandinavian stations on any frequency.

The diplomas will be issued for both **CW** as well as for **SSB**. It therefore appears that you cannot have mixed contacts, but either on **CW** or **SSB**, although one can apply for both if he has the required contacts.

One can get further information from <http://www.sk3bg.se/contest/sacnsc.htm>

A special internet webpage as a commemoration of this anniversary and other details may be found at <http://www.qrq.se/sac/> while everyone is encouraged to write down his participation, or rather his intention to participate on this webpage.

Thanks to **Ivan, 9H1PI** for this information.

**Lawrence**  
**9H1AV / 9H9MHR**

### **A week of Morse Code**

The International Morse Preservation Society is going to hold a straight key week activity between 7 September 00.01 UTC to 13 September 23.59 UTC. These activities are for those who want to use a straight key, not automatic keys for this activity.

Therefore, all those who have a Morse key and wants to participate is welcome for this activity which is not a contest. Take care to take that key out to participate.

There is no need for speed and you can use the speed that you feel comfortable with. Newcomers are welcome to this activity.

Further information can be obtained from the internet webpage of the Society at <http://www.fists.co.uk/>

**Lawrence**  
**9H1AV / 9H9MHR**

### **Interstiing Photograph**

Today we are bringing you an interesting photograph that one can say is in some way related to our hobby.

This is a reproduction of a vintage photograph depicting a messenger boy working for Mackay Telegraph Company, Waco, Texas, leaning on bicycle, pipe in his mouth; taken in

September, 1913, by Lewis Hine who worked as an investigative photographer for the National Child Labor Committee (NCLC), documenting working and living conditions of children in the United States between 1908 and 1921

If one closely examines the photograph he can see that the bicycle has no pump, no brakes and mudguards and probably only one pedal. This is apart from the boy smoking a pipe.

Thanks to **Ivan, 9H1PI.**



## **Activities**

### **Activity for radio amateurs**

**Be attentive and become members in the yahoo group to be fully informed with the latest activities that we intend to hold.**

**We are doing all we can to bring you useful information for you in this magazine. Therefore you should also take part and send some information or leave it in my QSWL box.**

**We wish to inform you that every alternate Thursday an eating activity is held at the Club where whoever is present and is not on diet may eat against a nominal payment. Next one is Thursday 31 July and every fifteen days, that is Thursday yes, Thursday no. For more details speak to Joe, 9H1AJ.**

**Lawrence  
9H1AV/9H9MHR**

# End of Summer Bar-B-Q

Date Saturday 20 September

Time 19.30

Price : Adults: €10

Children under: 12 Free

Serving: Chicken, Steak, Pork Chops

Selection of 7 salads

Free glass of wine

Dessert: Fruit Salad

Those on a special diet contact 9H1AJ

Booking Deadline Thursday 18 September

Name & Callsign .....

Number of People .....

Number of children under 12 .....

Please find payment of ..... enclosed

Please make cheques payable to Malta Amateur Radio League