



MARL



Fuljett maħruġ mill-MARL

Għad-Dilettanti tar-Radju

Maltin u Għawdxin

Numru 3

Awwissu 2005

Smoking is prohibited



at the Centre

From the Editor

Friends,

I hope that you have found the first two editions of our newsletter useful. The answers I had up to now were positive and encouraging.

Last time, I also asked for permission from members for the publication of their details in our newsletter. More feedback is required so that we can publish a directory or Maltese radio amateurs.

Please remember that this is a newsletter from radio amateurs to radio amateurs. As in radio communications, your contributions are necessary. Otherwise it would be just one-way communication.

How about sending information about how many countries you have worked on particular frequencies so that we can start a listing?

How about claiming first QSO's between Malta and other countries on your favourite frequencies?

Did you work some exotic dx while working mobile or portable?

Have you made some experiments with home made equipment or antennae? How did you find propagation on the different frequencies? Send us the details so that we can publish them.

It is necessary to put everything in writing so that future readers may know that 9H1XXX did something which was worth recording for historical purposes.

As we say in legal circles, *verba volant scripta manent*. Roughly translated, it means that if it is spoken it flies away (it is lost), if it is written it remains.

Get the keyboard and start writing. 73's and 88's until next time.

Lawrence
9H1AV / 9H9MHR

Congratulations

We congratulate the following persons who have passed the examination to obtain the amateur radio licence. These are,

Paul Bonello	9H5??
David Xuereb	9H5??
Stephen Cesare	9H1??
Raymond Abela	9H1RA
Stephen Fenech	9H5PH
Joseph Borg	9H5??

For 10Ghz History

For the history of 10 Ghz we wish to inform you that Fortunato Bonnici 9H1ES, and Joseph Falzon 9H1VW, had contact with Vicente EA5YB, on Sunday 17 July 2005. These contacts were on 10Ghz, 1296 Mhz and 144 Mhz, were on SSB are were made at 1755 Malta time.

The equipment used was as follows:
9H1ES 20 watts TWT 1-metre dish report received 59+
9H1VW 200mw dish 85cm report received 51
EA5YB 5 watts dish 85cm

Furtu and Joseph were near Nadur Tower while Vicente resides in Barcelona. Communications were originally on 1296 Mhz, but Vicente told them to give him 45 minutes to go on a mountain.

They also used 1296 Mhz with 6 watts as well as 144.390 Mhz with 5 watts for talkback. 9H1VW was using an FT817 and a 4-element yagi on 144.390 Mhz.

This means that there was not only good communications on 10 Ghz, but also good communications on 1296 Mhz and 144 Mhz.

We congratulate Furtu, Joseph and Vicente for their contacts and hope that other radio amateurs would follow their example and also try these frequencies.

MARL Centre

MARL Centre opens:

Tuesday	6.00 p.m. - 8.00 p.m
Thursday	6.00 p.m. - 8.00 p.m
Sunday	10.00 a.m. - 12.00 a.m

dB's

Last time we had an article by 9H1AQ on db's. I think that further explanations will help you to understand better.

First of all, you should know that the "bel" was named after Alexander Graham Bell at the beginning of the last century.

Therefore, the unit of measurement is the "bel" (B), but because it is more or less a large measure and also for another reason which we shall see, we divide it in tens so that we have **10** decibels (dB) in each bel. Accordingly, **3dB** means that we have **3 10ts** of a bel.

This is the same as when we divide a metre into smaller units so that we can measure better. In fact, we divide the metre into smaller parts than the bel, because we divide it into centimetres, which are one part in one hundred, and millimetres, which are one part in one thousand.

Why do we use logarithms to base 10? If we look at the logarithm book which we used to use at school before the arrival of electronic calculators, we can make a few observations.

There we find that the logarithm of **10** is **1**, of **100** is **2**, of **1000** is **3**, of **10,000** is **4**, etc. etc. If you observe correctly, you will find that the number of the logarithm is the number of zeros that there is in the number.

In other words, if we take **10** squared, that is, **10 x 10** which is written **10²**, the result will be **100**. The logarithm of **10** is 1, while the logarithm of **100** is **2**.

If we take **10** cubed, that is **10 x 10 x 10** which is written **10³**, the result will be **1000**, whose logarithm is **3**.

It is easy to observe that the number **2** or **3** which show that the number **10** is squared or cubed is the number of zeros as well as the logarithm of the number if we had to write the whole number.

If we know take **10³**, that is **1000**, we see that this becomes **3** bels, which as you can see is a very big number. To make calculations easy, we divide the bel into ten and use that which we know as decibel.

Now you can also understand why we divide the "bel" into tens, that is, decibel or **dB**.

As we have seen, the logarithm or **10** is **1**. If we look at it in another way, if we consider "bel" as **1**, it would be the logarithm of **10**. In other words, **1** is the logarithm of **10** decibels.

This does not mean that we are limited to the numbers **1, 10, 100** only, or similar numbers that end in zero or multiples of **10**, but every time we multiply any number by **10**, its logarithm **increases by 1**.

On the other hand, if we take any number whatever it may be, every time we divide it by **10** its logarithm **increases by 1**. Have a look at the log tables and try it, but let's work two examples.

Multiply **20 x 10**

The logarithm of **20** is **1.3**

The logarithm of **10** is **1**

20 x 10 = 200

The logarithm of **200** is **2.3(01029999..)**

Notice that if we add the logarithm of the two numbers we would have had the same result.

Logarithm of 20 = 1.3 +

Logarithm of 10 = 1

Total = 2.3

Lets take the same example the other way round,

Divide	200 by 10.
The logarithm of	200 is 2.3
The logarithm of	10 is 1
200 / 10 = 20	
The logarithm of	20 is 1.3

Notice that if we deduct the logarithms of the two numbers we will have the same result.-

The logarithm of	200 = 2.3 -
The logarithm of	10 = 1
Total	= 1.3

These are simple examples, but if we had more complicated numbers, it would be clearer how it is easier to add rather than multiplying or dividing.

Lawrence 9H1AV / 9H9MHR

136 khz

We have not forgotten this frequency, and we are again asking for it so that Maltese radio amateurs will have another frequency where they could communicate. More countries are giving this frequency to their radio amateurs.

We remind you that foreign radio amateurs were given permission to use from 135.7 khz to 137.8 khz.

You can add the following to the list that we gave you last time. Belarus EU, EV, EW, Australia VK, Bulgaria LZ, Cyprus 5B4, Hungary HA, Iceland TF, Latvia YL, Norway LA, LB, LC, LG, LI, LJ, LN.

500 khz

Today we have news that the USA FCC has issued the first callsign to a radio amateur to be able to work on 500 khz, that is between 495 khz to 510 khz.

Permission to be able to get on the air is expected to be granted by the end of the year, but the fact that a callsign has already been issued means that things have started moving.

Whoever wants further information may click on <http://500khz.org> where there are details of the licence as well as equipment.

From our end we will do our best so that we will also be granted this frequency, but as you know, things move at a snail's pace in Malta.

5 Mhz

Last time we told you how radio amateurs in other countries were granted permission to use frequencies on 5 Mhz to be able to experiment there, mostly on signals which are transmitted at a high angle.

While American, British, Norwegian radio amateurs and also from other countries were granted these frequencies, you should know that earlier this year, permits were also being issued in Africa. G8WVW who is also licensed as ZD8I on Ascension Island, had his first QSO with W1JR on 5 Mhz on 27th April.

As we have already told you, we are doing our best so that we will also be granted these frequencies, but as you know it will have to be an earthquake or a tsunami to move things in Malta.

We hope that we will not be the last people who will have to wait till the last judgment to be granted that which others were granted.

7 Mhz

As regards the extension of the 7 Mhz band to between 7 Mhz and 7.2 Mhz, we are continuing to do our best to be granted this extension.

Whoever thinks that there is nothing except commercial stations between 7.1 Mhz and 7.2 Mhz should listen at different times, because their programme schedule means that they will not be there all the time.

70 Mhz

As regards this frequency we had already asked for permission, but as usual it was rejected because the Armed Forces have nearby frequencies and it appears that they are not ready to move away.

We will continue to ask the authorities so that we may be granted permission to use this frequency.

50 Mhz

All persons interested in 50 Mhz will be interested to know that 65 Hungarian radio amateur stations are authorised to operate for the first time on 50 Mhz.

They will only operate during August on a trial basis to see if any QRM is caused to broadcast stations. Operation will be between 50.05 to 50.5 Mhz.

HA5AK is planning to operate a beacon on 50.050 Mhz.

Everyone hopes that the experiments will be successful and that the band will be issued to the Hungarian radio amateurs on a permanent basis.

The Uggerumph

What we have said about the Wouffhong and the rettysnitch generally applied to all operators.

However, as everyone knows, there are different modes by which radio amateurs communicate between themselves. Among the means used is CW, that is, communications by Morse code.

Whoever has worked with the Morse code knows that there are those who send morse like a machine, everything perfect, while there are those who seem to be sending with their left foot. With these there are those who fall at all levels in between.

Those who used to send bad Morse were called "LID". Where did this expression come from?

According to information found on www.qrz.com, this expression was derived from the system where people used to collect packet tops or can lids and exchange them for something.

The things that were exchanged with the lids were not something classy, but were simply something so that the lids collector would be given something back.

Therefore, whoever did not know how to send good Morse was called "LID", because he would be considered as if he had collected lids and exchanged them for his licence. As a result, he would not have been given his licence because he was good, but because he would have exchanged it for the boxex or cans lids.

It appeared that there was a good number of operators who could not send good Morse code, and this greatly troubled those for whom Morse code was like an art.

Therefore, as the Wouffhong and Rettysnitch were invented or found, it was necessary that something be found so that those who were called "lids" would get what they deserved. For this purpose, that which was called an "UGGERUMPH" was discovered, a photo of which is found hereunder.



Photo from the ARRL website

If the Wouffhong and the Rettysnitch were terrible instruments of torture, there is no doubt that the "Uggerumph" was no less an instrument of torture.

Those who use the Morse code should be careful to practice well so that they will not be granted such a gift.

Propagation

There are those who think that because we are presently at the low level of the solar cycle there will not be good propagation, especially on 28 Mhz. Whoever thinks so is not thinking correctly.

Apart from a great number of radio amateurs on this frequency, there were also a number of beacons that were heard several times a list of which may be found further down.

It is therefore good practice that when you are working on some other frequency listen also on 28 Mhz. Where no time or frequency is indicated it is because I forgot to write them down. F= +- 1 khz as I may have not calibrated the dial.

26.06.2005 1500 - 1600 UTC
 SV3AQR/P JN44VC 28.183 Amalias
 I1M JN33UT 28.180 QSL via
 IK1PCB

IY4M 28.195 (Robot)
 DL0IGI JN57MT 28.204
 IQ8CZ/B JM88HV 28.229 10w GP
 IQ1SP/B 28.218 3w GP
 F3TMJ/B JN03SM 28.243 5w
 DK0TEN JN47NT 28.257 QSL
 DL7KH
 DF4PV/P JV49AX 28.173 5w GP
 IT0DTU/B JM75SD 28.245 Messina
 10w GP

01.07.2005 0415 – 0430 UTC
 I1M JN33UT 28.180 (Marconi
 mem)
 DL0IGI JN57NT 28.204 0418
 DK0TEN JN47NT 28.256 20w GP
 F5KCK/Robot 28.110 0430

02.07.2005 1100 – 1115 UTC
 DF0AAB 28.227
 EA4DAT IN80VB 28.262 Cuenca
 5w GP

SV3AQR/B 28.183 Amalias

04.07.2005 1930 UTC
 OH5RAC KP30HV 28.231

05.07.2005 1920 – 2000 UTC
 OK0EG 28.281 10w 1920
 DF0AAB 28.277 1930
 IY4M 28.194 1930
 PA0RSR
 OM4OIJ 1w
 DF4PV/P JV49AX 28.173 5w GP
 DK0TEN JN47NT 28.256 20w GP
 QSL via DL7KH
 DL5KZ QRPP 28.320
 IS0GSR JM49ON 28.320
 F5TMJ/B JN03SM 28.243 5w

SV3AQR/B 28.183 Amalias
 5B4CY 28.220
 IQ1SP/B JN44VC 28.219 3w GP
 IK1PCB JN33UT 28.180

07.07.2005 1945 – 2010 UTC
 HA5BHA JN97PL 28.223 5w
 PY3PSI UU49KX 28.249 2w
 DK0TEN JN47NT 28.256 20w GP
 QSL via DL7KH
 OH9TEN KP36OI 28.266
 EA4DAT IN80VB 28.262 Cuenca
 5w GP
 OK0EG 28.281 10w
 F5TMJ/B JN03SM 28.243 5w

15.07.2005 1500 - 1600 UTC
 DF4PV/P JV49AX 28.173
 I1M JN33UT 28.180 QSL via
 IK1PCB
 IY4M 28.195 (Robot)
 DL0IGI JN75MT 28.204
 GB3RAL/B IO91IN 28.215
 IQ1SP/B IN44VC 28.219 3w omni
 DK0TEN JN47NT 28.257 20w GP
 QSL via DL7KH
 EA4DAT IN80VB 28.263 5w GP
 Cuenca
 DF0AAB 28.277
 OK0TEN 28.282 10w
 IS0ATZ JM49HV 28.001 5w vert

17.07.2005 0700 – 0800 UTC
 F5KCK/Robot 28.109
 SV3AQR/B 28.181
 DK0TEN 28.256 JN47NT
 OK0EG/Beacon 10w
 GB3RAL IO91IN 28.216 1640

These were only a few examples of what is being heard on 28 Mhz. Dx is also present.

Don't forget that although on one particular day there was not even one sunspot on the face of the sun facing earth, the following day that is on July 4, there were over 190 sunspots. This is in spite of being at the lowest levels of the 11-year sunspot cycle.

This situation repeated itself from 18 to 20 July, when there were no sunspots on the face of the sun facing earth.

These sunspots were again expected, because you should remember that these

reappear every 28 days. In the beginning of August therefore, probably between the 1st and 5th August, a large number of sunspots was again expected.

Instead of only listening it is therefore better that one would start calling, because it appears that more people are listening than calling. As a result no one hears anyone else because there is no one transmitting.

Calculators

A lot of people, especially those who are still young, today use electronic calculators. Probably they do not know that previously there were calculators to help people in their calculations, but these were not electronic. As a matter of fact, one of the earliest calculators was the abacus.



One calculator which those who are not so young remember is the slide rule which had a sliding or rotating part so that the necessary calculations could be made

These had different forms and made for different calculations according to requirements. To know how these appeared and how many different rulers there were, I suggest that you have a look at the internet pages whose links are found further down, one of which is about the abacus. They are very interesting pages.

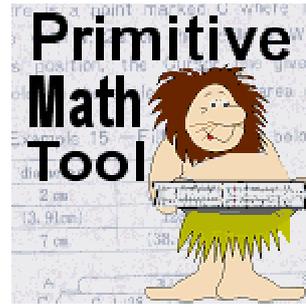
<http://www.ee.ryerson.ca:8080/~elf/abacus/index.html>

<http://www.sphere.bc.ca/test/sruniverse.html>

<http://www.stupid.com/stat/SLID.html>

<http://www.hpmuseum.org/srinst.htm>

The following picture is taken from one of these pages and shows one of these rulers. If you copy the picture and open it with the internet browser you will see it animated.



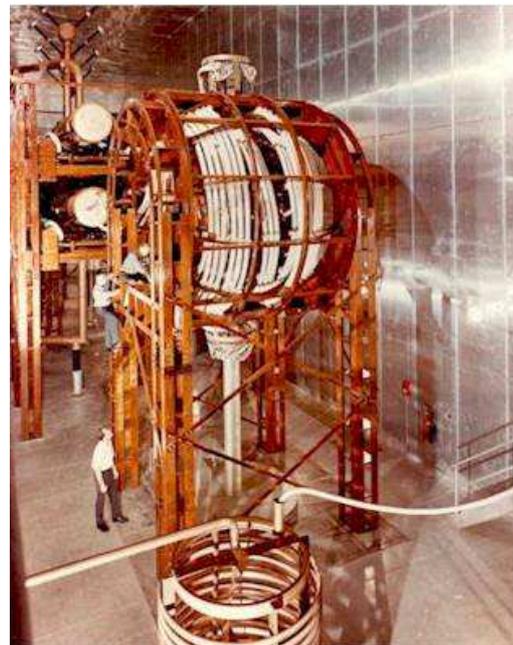
Bottled Wisdom¹

“Isn't it strange that the same people that laugh at gypsy fortune-tellers take economists seriously?”

Found somewhere.

QRP ATU

If someone requires a QRP ATU he/she can copy the one found hereunder. This is found on one of the links at <http://500kc.com>



9H – QSL Bureau

Introduction

QSL cards provide written confirmation of a QSO, with the details of the conditions of the specific communication. They have been used ever since amateur radio stations began communicating with each other.

¹ A Maltese expression

These cards often carry other information and images concerning the transmitting station, the operator, the location, and they may become collector's items. However their main use is to act as guaranteed proof of QSOs for the purpose of communication achievement awards.

At present there are probably more than 10 million cards sent by amateur radio operators each year. The cost of printing and distributing QSL cards for a ham can become a major expensive item. So, IARU recognized clubs have been encouraged to create a QSL bureau for their own country.

By grouping their members QSL cards, these bureaux can effectively offer a specialised postal service, which substantially lowers the cost of direct individual mailings.

The 9H QSL bureau, operated by MARL, aims to provide this as a non-profit making service to its members. It is auto-financing, without depending on support from the club's funds.

Outgoing Cards

MARL aims to ship 9H members' cards to any IARU approved bureau (there are approx. 160 world-wide) at least within the following 3 months.

The costs incurred are intended to be covered by the unique charge levied for each card; a special MARL 3c stamp is required to be stuck on every QSL card sent.

Recent analysis of card movements suggest that a more equitable charging system should be implemented. This will be based on charging being related to the destination of each card (as Maltapost does). Details of the actual mechanism and costs will be announced shortly.

Incoming Cards

MARL receives cards for 9H call-signs from other countries, either via their own QSL bureau or directly. These cards have to be sorted and distributed to our member's mailboxes in the clubhouse for collection.

This is a time consuming activity because many (>35%) cards we receive are apparently undeliverable. Undeliverable cards may have been incorrectly sent (not for Malta) or addressed to a non-member (or unknown / invalid 9H call-sign).

It does seem unfair that there are so many cases, when an overseas amateur sends a QSL card at his expense, we cannot deliver it. I would urge all 9H call-sign owners who are not members of MARL to make an arrangement with the club for handling any incoming cards for them.

Also, I am personally trying to identify the 9H3 call-signs and contacting the owners to clarify their particular situations. If anyone can help, please give me information about any specific cases they know.

Electronic QSL Cards

The computer has become an almost essential tool in the ham's shack today. Among other uses it can play an important role in maintaining the station's log.

Many different programmes are in use (see www.ac6v.com/logging), most of which provide QSL capabilities. Probably about half the cards we receive have the QSO details printed on them by such software (often as stick-on labels). From there it is just a small step to print the entire card.

However this is relatively expensive and is often criticized as opening the way to uncontrolled falsification of QSL cards.

Some amateurs with internet capability do send QSL cards as attachments, for printing by the recipient. This minimizes costs, but does not address the situation of fraudulent cards.

To eliminate such concerns, over the last few years a number of internet "electronic QSL bureaux" have been created, which check the authenticity of electronically reported QSOs by maintaining databases of the communicating partners.

This also allows QSO sorting, storage, verification, maintenance of award credentials as well as printing

authenticated hard copy QSL cards if required.

Now as the internet performance improves, especially those hams with permanent connections, can establish direct links between their QSO logs and these “electronic QSL bureaux”.

It is not unusual to have an authenticated QSL card delivered electronically within 10 minutes of finishing a QSO and to be able to print it out immediately if you wish.

My own experience, using eQSL (www.eqsl.cc) shows that over half my QSOs are confirmed using this route.

Robin, 9H1ZZ

CW

In many countries, CW qualification has been abolished from the requirements for radio amateurs to be able to transmit below 30 Mhz.

It has also been eliminated in Italy in July 2005, where Minister Landolfi issued a decree abolishing the requirement and allowing radio amateurs with a class B licence to apply to change their call-sign.

This decree has been published in GURI² as required by law and also published on the ARI website.

Canada has also abolished the CW qualification requirement while the USA FCC is also proposing to eliminate the requirement.

International Lighthouse Day

Last time we mentioned that a lighthouse day is held during the third weekend of August each year. This year, this is going to be between 0001 UTC on Saturday 20th August to 2359 UTC on Sunday 21st August.

² GURI = Gazzetta Ufficiale della Repubblica Italiana

This does not mean that you have to operate during the whole period, but only as much as you can or wish.

Some MARL members took our suggestion and would like to set up stations at the various lighthouses in Malta. Others interested in joining them are requested to get in touch with committee members to coordinate all operations.

Please remember that this is not a contest, although the more stations that are worked the better.

The main aim is to work the maximum number of lighthouses / lightships, make the public aware of the need of their preservation and restoration, to promote amateur radio and foster international goodwill.

Operating from a lighthouse means either in the lighthouse itself or immediately adjacent to the lighthouse, i.e., as close as possible in the field next door.

Operation regarding frequencies and power is according to your normal operating licence. To assist other stations, cw stations are requested to add /LT for lighthouse and /LS for lightship after their callsign.

For your information, we are republishing the frequencies where most activity is encouraged, although any frequency may be used, including 160 metres if you have space for the antennae.

CW

Frequencies Mhz	Centre	Frequency Mhz
3.510 – 3.540		3.521
7.005 – 7.035		7.021
14.010 – 14.040		14.021
21.010 – 21.040		21.021
28.010 – 28.040		28.021

Voice

Frequencies Mhz	Centre	Frequency Mhz
3.650 – 3.750		3.721
7.040 – 7.100		7.051
14.125 – 14.275		14.221
21.150 – 21.250		21.221
28.300 – 28.400		28.351

Malta	ARLHS No Lat/Long
Delimara	MLT001 36°50'N 14°33'E
St Elmo	MLT002 35°54'N 14°31'E
Ġordan	MLT003 36°04'N 14°13'E
Ricasoli B'water	MLT004 35°54'N 14°31'E
Fort Ricasoli	MLT005
Marsamxett	MLT006
Valletta	MLT007 35°54'N 14°31'E

Please note that Fort Ricasoli MLT005 and Marsamxett MLT006 lighthouses are in the historic class.

For further information and a list of participants in this years' event go to http://arlhs.com/awards/M_list.html

Space

Another satellite will become available to radio amateurs in the near future. This is a Portuguese commercial satellite which will be switched permanently to amateur frequencies.

Launched September 25, 1993, it had, in 1994, operated for a several weeks on amateur frequencies as a store and forward BBS at 9600 baud FM FSK.

When it is switched permanently to radio amateur use in a few weeks time, uplink frequencies will be 145.925 and 145.975 MHz, while downlink frequencies will be 435.075 and 435.275 MHz.

During the last shuttle mission to the International Space Station and one of the space walks, Soichi Noguchi, KD5TVP installed a new PCSat2 amateur radio package on the International Space Station structure.

The package will provide a 10-meter PSK31 multi-user transponder, an FM voice repeater for possible use with ISS crew members and an AX.25 packet system for use as a UI digipeater and for telemetry, command, control.

Bruninga, WB4APR says PCSat2 may be ready for use within a few days, but he asks that stations not attempt to use the system until it's been checked out and an announcement made. He has invited well-equipped ground stations to help capture early telemetry on the alternate downlink

of 437.975 MHz during PCSat2's first few days of activation. Telemetry will be at 1200 and 9600 baud and files may be e-mailed to pc2@grc.nasa.gov.

PCSat2's primary downlink frequency is 435.275 MHz; the packet digipeater up and downlink frequency is 145.825 MHz. UHF downlink is only 1 W and will require a beam to hear it.

Whoever wants more information on satellites may click on one of the following links.

<http://www.ew.usna.edu/~bruninga/pcsat.html>
<http://www.ew.usna.edu/~bruninga/pcsat2.html>
http://www.jsc.nasa.gov/ex/ert/materials_International_space_station.htm
<http://www.harp.alaska.edu/harp/Monitor.html>
<http://www.iaru.org/satellite/prospective.html>

UV Index

A lot of people listen to the weather report and hear about the UV index, but they may not know what it means or what they have to do not to get sunburned.

Apart from sunburn, there is the danger of sunstroke and a lasting damage that may lead to skin cancer that, when it is found out due to its effects it is usually too late.

I have therefore decided to collect some information from different sources on this index and what we should do to evade sunstroke and other bad effects, especially for those radio amateurs who like to operate outside.

First of all, UV means Ultra Violet rays, which are divided into UV-A, UV-B and UV-C. UVC rays are of little concern as they are absorbed by the upper atmosphere and do not reach the earth's surface.

UVB rays are the ones that burn the skin and can damage the eyes. Combined with cold wind and snow, UVB has the potential to cause snow blindness (photokeratitis), a temporary (lasting 12 to

48 hours) but painful problem in the cornea of the eye.

Although not all experts and scientists agree, there is some research that suggests that daily exposure to UVB in very bright sunlight over a period of many years may cause cataracts, a gradual clouding of the lens of the eye.

UVA rays are primarily absorbed within the lens of the human eye, though there are no documented disorders of the human eye from UVA. This, however, remains a much debated and researched topic, says the Sunglass Association of America (SAA).

UV Index

The UV index is a measure of the harmful Ultraviolet sunlight. It is not a measure of the visible sunlight or for the warmth of the Sun.

The index level is the highest level, that is, at around 1300.

The UV index values are valid for clear sky and broken cloud conditions.

UV levels are highest under cloudless skies, and cloud cover generally reduces a person's exposure. However, light or thin clouds have little effect and may even enhance UV levels because of scattering. Don't be fooled by an overcast day or a cool breeze! Even a long stay in open shade, for example between buildings, may give a sensitive person a sunburn on a day with high UV levels.

Be careful not to underestimate the amount of UV radiation passing through clouds

Although UV rays are necessary for the body to produce vitamin D, a lot of time exposed to these rays causes the aforementioned effects.

Simple precautions

The rise in the incidence of skin cancers over the past decades is strongly related to increasingly popular outdoor activities and recreational exposure. Overexposure to sunlight is widely accepted as the underlying cause for harmful effects on

the skin, eye and immune system. Experts believe that four out of five cases of skin cancer could be prevented, as UV damage is mostly avoidable.

Adopting the following simple precautions can make all the difference. Shade, clothing and hats provide the best protection. Applying sunscreen becomes necessary on those parts of the body that remain exposed like the face and hands. Sunscreen should never be used to prolong the duration of sun exposure

Limit time in the midday sun

The sun's UV rays are the strongest between 11 a.m. and 3 p.m. To the extent possible, limit exposure to the sun during these hours. **PROTECT BABIES AND YOUNG CHILDREN: THIS IS PARTICULARLY IMPORTANT**

Watch for the UV index

This important resource helps you plan your outdoor activities in ways that prevent overexposure to the sun's rays. While you should always take precautions against overexposure, take special care to adopt sun safety practices when the UV Index predicts exposure levels of 3 or above.

The UV Index can:

- Save your life
- Protect good health
- Help preserve youthful complexion

Use shade wisely

Seek shade when UV rays are the most intense, but keep in mind that shade structures such as trees, umbrellas or canopies do not offer complete sun protection.

Wear protective clothing

A hat with a wide brim offers good sun protection for your eyes, ears, face, and the back of your neck. Sunglasses that provide 99 to 100 percent UVA and UVB protection will greatly reduce eye damage from sun exposure. Tightly woven, loose fitting clothes will provide additional protection from the sun.

Use sunscreen

Apply a broad-spectrum sunscreen of SPF **20+** liberally and re-apply every two

hours, or after working, swimming, playing or exercising outdoors.

Small amounts of UV are beneficial for people and essential in the production of vitamin D.

UV radiation is also used to treat several diseases, including rickets, psoriasis, eczema and jaundice. This takes place under medical supervision and the benefits of treatment tend to outweigh the risks of UV radiation exposure.

Overexposure to solar radiation may result in acute and chronic health effects on the skin, eye and immune system.

Children are in a dynamic state of growth, and are therefore more susceptible to environmental threats than adults. Many vital functions such as the immune system are not fully developed at birth, and unsafe environments may interfere with their normal development.

Many believe that only fair-skinned people need to be concerned about overexposure to the sun.

Darker skin has more protective melanin pigment, and the incidence of skin cancer is lower in dark-skinned people. Nevertheless skin cancers do occur with this group and unfortunately they are often detected at a later, more dangerous stage.

The risk of UV-related health effects on the eye and immune system is independent of skin type.

UV Levels

When the UV index is from **0 to 2** it will be a minimum with little or no effect, and wearing a hat is enough to protect ourselves.

When the index is between **3 and 4** it will be low and the effects are small, but it is recommended to wear a hat and apply a cream with a sun protection factor of at least 20.

A UV index of between **5 and 6** is moderate and will have moderate effects. Together with the aforementioned

protection, everyone is advised to stay in the shade.

A UV index between **7 and 9** is high and will have strong effects. Together with the aforementioned protection, everyone is advised to stay indoors between 1100 and 1500.

A UV index between **10 and 11+** is very high and will have very strong effects. Together with the aforementioned protection, everyone is advised to remain indoors.

BPL

Although it appears that no ISP in Malta was interested in BPL, it is important to see what is being proposed and the reaction to the deployment of BPL overseas.

For this purpose, we are collecting all the available information on the subject and we are compiling a data file on MARL computer.

The latest additions are the proposed submissions in Australia and the response by radio amateurs, broadcasters, equipment manufacturers, defence and health departments, and other interested parties.

While on the subject, I think you will enjoy the answer by David Sumner K1ZZ to a frustrated "Professional" who was defending BPL and called radio amateurs "a misinformed set of armchair amateurs that still use vacuum tube transmitters."

"Amateurs built the Ark. Professionals built the *Titanic*."

BBQ

Saturday, 20.08.2005. Details on MARL website. Come and,



Picture from flying pigs club website.