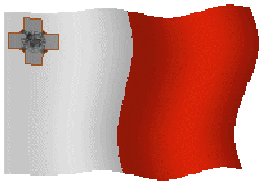
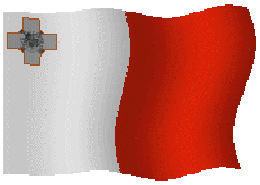


MARL



MALTA

Magazine by MARL

For Maltese and Gozitan Radio Amateurs

Number 56

November 2010

Smoking is prohibited at the Centre

From the Editor

Friends,
I welcome you to another issue of this magazine for November 2010, which is issue 56 of this series.

First of all I wish personally, on behalf of the committee as well as on behalf of the members to give condolences to **Billy**, **G0DEO, 9H1IA** for the death of is wife Matilda at the young age of 54 years, as well as to their son and families. May God give eternal rest to Matilda.

I remind you as the Secretary has told you on the yahoo group that the next course for those who want to get an amateur radio license is going to start on Thursday 28 October 2010 at the **MARL** centre.

As I wrote last time, the Netherlands Antilles no longer exist and now there are 4 new entities for **DXCC**. These are (1) **Curaçao** (**PJ2**); (2) **Sint Maarten** (**PJ7**); (3) **Saba** (**PJ6**) **and St Eustatius** (**PJ5**), and (4) **Bonaire** (**PJ4**).

The date and time when these changes are deemed to have happened are **0400 UTC, 10th October 2010**. However, confirmation of these entities for credit will be considered from **1st January 2011.**

As you know **MARL** also has a group of emergency volunteers where they provide help to the Civil Protection Department when required. As usual this Group also provided communications during the Notte Bianca in Valletta City and thanks goes to those who took part in this activity.

As you know this also happens in foreign countries where radio amateurs provide emergency communications. The last example about which everyone certainly knows is the case of the Chile mine where radio amateurs helped in the mine for communications to be possible with a number of emergency services.

Therefore as I have always told you it is good for one to practise and have the necessary equipment so that if God forbid an emergency happens in Malta we will be able to give our help and provide the required communications. And why not, even in other countries especially neighbouring ones if the need arises and our help is requested. But every help can only be given once we are fully prepared.

As always, 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 or you can send it to me on my e-mail **9h1av at searchmalta dot com**.

Lawrence
9H1AV/9H9MHR/9H79AV

JOTA

I remind you that **MARL** as in previous years took part in the Scouts Jamboree where scouts contacted a number of other stations. There were also a number of radio amateurs who went to operate together with the scouts from different places.

These are good means too increase our hobby's knowledge and attract more people to start on this hobby. Therefore it is also good that those who took part and took some photos to pass them on to me so that I can publish them on this magazine for everyone to remember.

Lawrence
9H1AV/9H9MHR/9H79AV

Help in Chile

As I said in the editorial, Chilean radio amateurs provided help in communications in the mine accident where 35 workers were buried. They were buried at a depth of 2,300 feet and 3 miles from the entrance of the mine and remained buried for 69 days.

According to **Radio Club de Chile http://www.ce3aa.cl/** which is the national **IARU** member, radio amateurs from the **Radio Club Copiapó, CE1CPI http://www.rccopiapo.blogspot.com/** provided help in communications between the authorities and emergency equipment operators in the mine as well as with the families of the buried workers and authorities in Copiapó.

The President of **Radio Club Copiapó Jose Maldonado Lazo**, **CE1RXY** said that there were no other means of communications on site. The group worked with three telephones in the mine area while radio amateurs in Copiapó took care of all the requirements of **SENCO** (construction company), **SAMU** (ambulances and emergency services) **http://www.samu-chile.cl/EXPLOTA_WEB_SAMU/samu_800/** , Internal Administration and police and fire fighting departments.

About 80 **Club Copiapó** members took part in the operation and installed equipment in the mine to be able to communicate, while they worked on shifts to work without any breaks.

Lately there were other examples where in Pakistan and also other countries that were hit with floods and earthquakes it was radio amateurs that provided all the necessary communications. From this you see how important it is for everyone to be fully prepared as I have always said, so that if God forbid an emergency happens we will be able to give out help.

Lawrence
9H1AV/9H9MHR/9H79AV

70 MHz

Today I am going to continue to give you the first contacts that were made on this frequency between different countries.

From England

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Algeria	7X	G5KW	FA3JR	1957-06-16	Bull Jul 57 –		
			FA3JR was on 72 MHz				
Andorra	C3	GNKL ?	PX1RI	1968-06-24	2137	Bull Aug 68	
Balearic Isl.	EA6	G0CHE	EA6SX	2008-12-09	0207	MS	
Belgium	ON	G4DEZ	ON4PS	2009-11-20	1220		
Crete	SV9	G3LQR	SV9GPV	2007-05-27	1715		
Croatia	9A	G4PBP	9A3AB	2004-05-15			
Cyprus	5B	G4BPY	5B4AZ	1981-06-07	1335 Rad Com Aug 81		
Czech Rep.	OK	G4DEZ	OK2POI	2008-02-28	0550	MS	Y
Denmark	OZ	G3UVR	OZ3ZW	2003-07-22	0956	Es	
Dodecanese	SV5	G3JHM	SV5BYR	2006-06-18	1321		
Eire	EI	G6NB	EI2W	1957-04-18	Bull May 57		
Estonia	ES	G4DEZ	ES3RF	2008-02-08	1232	MS	Y
Faeroe Isl.	OY	G3UVR	OY9JD	2003-08-18			
England	G	G5KW	G8KW	1956-11-02	Bull Nov 56		
Finland	OH	G4DEZ	OH3UW	2009-11-20	2205		
France	F	G5KW	F8GH	1957-06-20	Bull Jul 57 –		
			F8GH was on 72 MHz				
Germany	DL	G7CNF	DI2AL	2007-08-07	0917	MS	Y
Gibraltar	ZC2	G3RIK	ZB2VHF	1967-06-02	1708	Bull Mar 68	
Greece	SV	M0LRE	SV2DCD/P	2006-05-21	0739	Es	
Guernsey	GU	G5ZT	GC3OBN	1964-02-27		Bull Apr 64	
Hungary	HA	G4DEZ70	M1YA HA1YA	2007-06-30	2219	Y	
Iceland	TF	G3JVL	TF3EA	1969-06-27		Bull Aug 69	
Isle of Man	GD						
Italy	I	G7CNF	IW0FFK	2007-07-14	0604	MS	
Luxembourg	LX	M0RRC/P	LX1JX	2006-07-02	0807	Tr	
Monaco	3A	G3SHK	3A/OZ2M	2009-09-15	0146	MS	
Jersey	GJ	G3JEQ/P	GJ3RAX	1981-06-07	1244		
			email from GJ3RAX to G3UBX				
Madeira	CT3	G0CHE	CT3HF	2006-07-16	1527	Es	
Morocco	CN	G5MR	CN8MG	1960-05-25	1136	Bull	Jun 60
			CN8MG was on 72 MHz				
Netherlands	PA	G2HCG	PE1PL	1957-02-11			
N. Ireland	GI	G3OHH	GI3HXV	1961-10-28	Aur. Bull Dec 61 p300		
Norway	LA	G4DEZ	LC0VHF	2007-06-08	1834	MS	Y
Portugal	CT	G4IGO	CT1FFU	2006-01-03	1820	MS	
San Marino	T7	G0CHE	T70A	2010-06-19	0920	Es	
Sardinia	IS0	G7CNF	IS0/IK0BZY	2007-09-04	1627	MS	
Scotland	GM	G5CP/A	GM3EGW	1961-11-20	Bull Dec 61 p300		
Slovakia	OM	G8HVY	OM5KM	2009-06-12	1317	MS	
Slovenia	S5	G6WZA	S57A	1998-06-18	1329		
SMOM	1A	G3VYF	1A0KM	2007-07-18	1519		
Spain	EA	G8HVY	EA1YV	2008-11-08	1450	MS	
Switzerland	HB	G4LXH	B9QQ	1958-07-10	Bull Aug 58		
Wales	GW	G6NB	GW8UH	1957-02-	Bull Mar 57		

From Estonja

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Åland	OH0	ES3RF	OH5LID/0	2010-07-14	0711	MS/T	

Belgium	ON	ES3RF	ON4PS	2009-11-24	2110	MS	Y
Croatia	9A	ES3RF	9A1Z	2008-02-11	1640	MS	Y
Czech Rep	OK	ES3RF	OK1CO	2008-02-28	1453	MS	Y
Denmark	OZ	ES3RF	OZ3ZW	2008-02-08	1011	MS	Y
Eire	EI	ES1II/8	EI3IO	2008-05-25	1423	Es	
England	G	ES3RF	G4DEZ	2008-02-08	1232	MS	Y
Estonia	ES	ES5AM	ES5QA	2007-12-23	0701	Tr	Y
			First 70 MHz QSO ever				
Faeroe Isl.	OY	ES3RF	OY3JE	2008-03-02	1414	MS	
Finland	OH	ES1CW	OH3UW	2009-11-07	1554	T	
Germany	DL	ES3RF	DI2PM	2008-02-08	1132	MS	Y
Greece	SV	ES3BR	SV2DCD	2008-05-25	1130	Es	
Guernsey	GU	ES1CW	GU6EFB	2010-05-27	1931	Es	
Isle of Man	GD	ES3RF	GD0TEP	2008-02-14	2010	MS	Y
Italy	I	ES3RF	I3VWK	2008-05-11	0426	MS	
Jersey	GJ	ES3RF	GJ4ISM/P	2009-08-12	2055	MS	Y
Luxemburg	LX	ES3RF	LX1FX	2008-02-29	1635	MS	Y
N. Ireland	GI	ES1II/8	GI4KSO	2008-05-24	1509	Es	
Norway	LA	ES3RF	LA4LN	2009-11-14	2145	MS	Y
Portugal	CT	ES3RF	CT1HZE	2008-07-02	1034	Es	Y
San Marino	T7	ES2JL	T70A	2010-06-19	1634	Es	
Scotland	GM	ES3RF	GM4ISM	2008-02-14	0558	MS	Y
Slovakia	OM	ES3BR	OM5KM	2009-06-29	1636	Es	
Slovenia	S5	ES3RF	S51DI	2008-02-08	1503	MS	
Spain	EA	ES3RF	EA1YV	2010-05-27	2056	Es	
Svalbard & Bear Isl.	JW	ES3RF	JW7QIA	2010-07-02			
Wales	GW	ES3RF	GW8ASD	2008-02-11	1256	MS	Y

From Faeroe Islands

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Balearic Isl.	EA6	OY3JE	EA6SX	2010-05-26	1456	Es	
Belgium	ON	OY3JE	ON4PS	2009-11-21	1100	MS	
Crete	SV9	OY3JE	J49K	2008-05-28	0827	Es	
Croatia	9A	OY1CT	9A1Z	2007-07-15	1724		
Czech Rep.	OK	OY3JE	OK1KT	2008-03-05	0832	MS	
Denmark	OZ	OY9JD	OZ3ZW	2003-07-22	1010	Es	
Dodecanese	SV5	OY3JE	SV5BYR	2008-05-28	0837	Es	
Eire	EI	OY1CT	EI3IO	2007-06-22	1958		
England	G	OY9JD	G3UVR	2003-08-18			
Estonia	ES	OY3JE	ES3RF	2008-03-02	1414	MS	
Faeroe Isl.	OY	OY1CT	OY9JD	2007-07-13	2141		
Finland	OH	OY3JE	OH2BGN	2009-12-14	0418	MS	
Germany	DL	OY3JE	DI2AL	2007-08-10	0604	MS	
Greece	SV	OY3JE	SV2DCD	2008-05-27	1753	Es	
Guernsey	GU	OY3JE	GU8FBO	2007-12-11	2320	MS	
Isle of Man	GD	OY3JE	GD0TEP	2008-01-10	2300	MS	
Italy	I	OY3JE	IK1EGC	2008-05-24	1548	Es	
Jersey	GJ	OY3JE	GJ4ISM/P	2009-08-12	0737	MS	
Luxemburg	LX	OY3JE	LX1FX	2008-03-04	0900	MS	
N Ireland	GI	OY9JD	GI4KSO	2007-08-13	1047	MS	
Norway	LA	OY3JE	LA4ANA	2009-11-07	1412	MS	
Portugal	CT	OY3JE	CT1FFU	2008-06-16	1620		
Scotland	GM	OY9JD	GM4XRV/P	2003-06-03	1520		
Slovakia	OM	OY3JE	OM3CLS	2010-05-26	1649	Es	
Slovenia	S5	OY9JD	S53X	2003-07-19			
Spain	EA	OY3JE	EA1YV	2010-05-27	1913	Es	
Svalbard & Bear Isl.	JW	OY3JE	JW7QIA	2010-07-01	2114	Es	

Wales	GW	OY1CT	MW0HMV	2007-06-22	1945	Es	

From Finland

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Åland	OH0	OH1ND	OH5LID/0	2010-07-14	0650T		
Balearic Isl.	EA6	OH2BGN	EA6SX	2010-06-07	1603	Es	
Belgium	ON	OH5LID	ON4PS	2009-12-11	1525	MS	
Croatia	9A	OH5LID	9A1Z	2009-12-12	0814	MS	
Czech Rep.	OK	OH5LID	OK1KT	2009-11-25	1939	MS	
Denmark	OZ	OH2AUE	OZ1HTB	2009-11-07	0618	MS	
Eire	EI	OH2AXH	EI2GLB	2010-05-27	1842		
England	G	OH3UW	G4DEZ	2009-11-20	2205		
Estonia	ES	OH3UW	ES1CW	2009-11-07	1554	T	
Faeroe Isl.	OY	OH2BGN	OY3JE	2009-12-14	0418	MS	
Finland	OH	OH3UW	OH3CT	2009-11-04	1745		
Germany	DL	OH2AUE	DL3YEE	2009-11-08	1901	MS	
Greece	SV	OH3UW	SV1DH	2010-05-27	1850	Es	
Guernsey	GU	OH1ND	GU6EFB	2010-05-27	1906	Es	
Isle of Man	GD	OH5LID	GD0TEP	2010-06-15	1028	Es	
Luxembourg	LX	OH5LID	LX1FX	2009-11-26	1120	MS	
N. Ireland	GI	OH2BGN	GI4KSO	2009-12-14	1015	MS	
Norway	LA	OH3UW	LA9DFA	2009-11-17	1755	MS	
Portugal	CT	OH2MFE	CT1HZE	2010-06-01	1751	Es	
San Marino	T7	OH1ND	T70A	2010-06-20	1043	Es	
Scotland	GM	OH2BGN	GM4ISM	2009-12-15	1040	MS	
Slovakia	OM	OM3PV	OH2MFE	2010-06-01	1836	Es	
Slovenia	OH	OH5LID	S51DI	2009-12-02	2031	MS	
Svalbard & Bear Isl.	JW	OH5LID	JW7QIA	2010-07-01			
Wales	GW	OH5LID	GW8ASD	2009-12-11	1627	MS	

From France

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Netherlands	PA	F9BG	PA0WO	1957-08-09			

From Germany

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Åland	OH0	DL3YEE	OH5LID/0	2010-07-14	1459	MS	
Azores	CU	DL3YEE	CU4/DL3GCS	2010-07-05	1635		
Crete	SV9	DI2AL	SV9GDP	2007-08-08	1915	Es	
Croatia	9A	DI2AL	9A6R	2007-08-08	1900	Es	
Czech Rep.	OK	DI2PM	OK2POI	2008-02-27	1615	MS	
Denmark	OZ	DI2PM	OZ1DJJ	2007-08-06	2050	T	
Dodecanese	SV5	DL3YEE	SV5BYR	2010-05-26	1650	Es	
Eire	EI	DI2AL	EI7IX	2007-09-08	0702	MS	
England	G	DI2AL	G7CNF	2007-08-07	0917	MS	Y
Estonia	ES	DI2PM	ES3RF	2008-02-08	1210	MS	
Faeroe Isl.	OY	DI2AL	OY3JE	2007-08-10	0604	MS	
Finland	OH	DL3YEE	OH2AUE	2009-11-08	1901	MS	
France	F	DL6TU	F8ZW/P	1958-05-03	T On DL page only		
Germany	DL	DL3YEE	DI2AL	2007-09-06	1805	T	
Greece	SV	DI2AL	SV1DH	2007-08-08	1842	Es	
Guernsey	GU	DI2AL	GU8FBO	2007-08-08	0410	MS	
Isle of Man	GD	DI2AL	GD0TEP	2007-08-12		MS	
Italy	I	DI2AL	I0WTD	2007-08-08	1734		
Jersey	GJ	DI2AL	GJ3YHU	2007-08-13	1030	MS	
Luxembourg	LX	DI2AL	LX1JX	2007-08-13	0530	MS	

Madeira	CT2	DL3YEE	CT3HF	2009-06-02	1848	Es
Netherlands	PA	DJ2LF	PA0WO	1958-05-03 T On DL page only		
N. Ireland	GI	DI2AL	GI4KSO	2007-08-08	2051	MS
Norway	LA	DI2PM	LA4ANA	2009-11-07	1340	MS
Portugal	CT	DL3YEE	CT1HZ	E2008-06-01	0937	Es
San Marino	T7	DL3YEE	T70A	2010-06-19	1409	MS/Es
Sardinia	IS0	DI2AL	IS0/IK0BZY	2007-09-08	1252	MS
Scotland	GM	DI2AL	GM4ISM	2007-08-07	1018	MS
Slovakia	OM	DI2PM	OM5KM	2009-06-12	1229	MS
Slovenia	S5	DI2AL	S51DI	2007-08-09	0501	MS
Spain	EA	DI2PM	EA1YV	2008-10-31	1051	MS
Switzerland	HB9	DL3YF	HB9RG	1957-02-11 T On DL page only		
Wales	GW	DI2AL	MW0HMV	2007-08-07	0957	MS

From Gibraltar

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Croatia	9A	ZB2/G0JJL	9A6R	2005-06-09	1918		
England	G	ZB2VHF	G3RIK	1967-06-02	1708	Bull Mar 68	
Jersey	GJ	ZB2BL	GJ3RAX	1981-08-16	1050		
			email from GJ3RAX to G3UBX				
N. Ireland	GI	ZB2VHF	GI3PDD	1967-06-11		Bull Jul 67	
Scotland	GM	ZB2VHF	GM3EGW	1967-06-11	1920	Bull Jul 67	
Slovenia	S5	ZB2/G0JJL	S51DI	2005-06-09	1831		
Wales	GW	ZB2VHF	GW4CG	1967-06-11	1102	Bull Jul 67	

From Greece (SV)

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Azores	CU	SV2DCD	CU8AO	2006-07-12	1248	Es	YMP3
Balearic Isl.	EA6	SV2DC	DEA6SX	2008-12-10	2051M	S	Y
Belgium	ON	SV2DCD	ON4PS	2010-05-17	1655		Y
Crete	SV	9SV1DH	SV9GPV	2007-08-12	1108	T	Y
Croatia	9A	SV1OE	9A6R	2006-05-23	1603	Es	Y
Czech Rep.	OK	SV2DCD	OK1DO	2008-03-01	0610M	SY	
Denmark	OZ	SV2DCD	OZ2M	2006-05-30	1342	Es	Y
Eire	EI	SV1DH	EI3IO	2006-06-07	1656Es		Y
England	G	SV2DCD/P	M0LRE	2006-05-21	0739	Es	
Estonia	ES	SV2DCD	ES3BR	2008-05-25	1130Es		Y
Faeroe Isl.	OY	SV2DCD	OY3JE	2008-05-27	1753	EsYMP3a	MP3b
Finland	OH	SV1DH	OH3UW	2010-05-27	1850	Es	
Germany	DL	SV1DH	DI2AL	2007-08-08	1842	Es	Y
Greece	SV	SV1DH	SV1OE	2006-05-15	1605T		Y
Guernsey	GU	SV2DCD	GU6EFB	2008-05-23	1300		
Hungary	HA	SV1DH70M1FV	HA1FV	2007-07-01	1351	Es	Y
Isle of Man	GD	SV2DCD	GD0TEP	2006-06-12	1747	Es	Y
Italy	I	SV1DH	IZ5EME	2007-07-24	1613	Es	Y
Luxembourg	LX	SV1OE	LX1JX	2006-07-06	1812	Es	Y
Madeira	CT3	SV1DH	CT3HF	2007-07-04	1740	Es	Y
Monaco	3A	SV1OH	3A2MG	2010-07-07	1505	Es	
N. Ireland	GI	SV1OE	GI0GDP	2006-06-04	1309	Es	Y
Norway	LA	SV1DH	LA4LN	2010-05-25	1654	Es	
Portugal	CT	SV2DCD	CT1HZE	2006-06-06	1625	Es	Y
San Marino	T7	SV1OH	T70A	2010-06-19	0948	Es	
Sardinia	IS0	SV1DH	IS0AWZ	2008-06-04	1804	Es	Y
Scotland	GM	SV1OE	GM4ISM	2006-06-04	1212	Es	Y
Slovakia	OM	SV1DH	OM3RM	2009-06-14	1146		Y
Slovenia	S5	SV1OE	S54M	2006-05-21	0700	MS	Y

Spain	EA	SV2DCD	EA1DDU	2009-06-30	1806		
Wales	GW	SV1OE	GW8IZR	2006-06-04	1331	Es	Y

From Dodecanese (SV5)

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Crete	SV9	SV5BYR	SV9GPV	2009-06-24	1356		
Croatia	9A	SV5BYR	9A1HCD	2007-05-27	1710	Es	
England	G	SV5BYR	G3JHM	2006-06-18	1321		
Faeroe Isl.	OY	SV5BYR	OY3JE	2008-05-28	0837	Es	
Germany	DL	SV5BYR	DL3YEE	2010-05-26	1650	Es	
Luxembourg	LX	SV5BYR	LX1FX	2009-05-19	1536	Es	
Portugal	CT	SV5BYR	CT1HZE	2006-07-12	0947	Es	
Sardinia	IS0	SV5BYR	IS0AWZ	2008-06-09	1231	Es	
Slovakia	OM	SV5BYR	OM3PV	2010-05-26	1629	Es	
Slovenia	S5	SV5BYR	S54M	2006-06-16	1227	Es	
Spain	ES	SV5BYR	EA1YV	2010-05-26	1932	Es	
Wales	GW	SV5BYR	2W0CDJ	2006-06-18	1328		

From Crete (SV9)

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Balearic Isl.	EA6	SV9PGV	EA6SX	2009-06-30	1426		
Belgium	ON	SP9GPV	ON5VW	2010-05-26	1617		
Crete	SV9	SV9GPV	SV9CJO	2008-06-01	1400		
Croatia	9A	SV9GPV	9A1HCD	2007-05-27	1725	Es	
Czech Rep.	OK	J49K	OK1KT	2008-05-26	0955	Es	
Denmark	OZ	SV9GPV	OZ2LD	2007-07-14	1445	Es	
Dodecanese	SV5	SV9GPV	SV5BYR	2009-06-24	1356		
Eire	EI	SV9GPV	EI3IO	2007-05-27	1633		
England	G	SV9GPV	G3LQR	2007-05-27	1715		
Faeroe Isl.	OY	J49K	OY3JE	2008-05-28	0827	Es	
Germany	DL	SV9GPV	DI2AL	2007-08-08	1915	Es	
Greece	SV	SV9GPV	SV1DH	2007-08-12	1108	T	
Isle of Man	GD	SV9GPV	GD0TEP	2009-06-24	1427		
Italy	I	SV9GPV	IZ8DWF	2007-10-06	1733	T	
Luxembourg	LX	J49K	LX1FX	2008-05-23	1230	Es	
N. Ireland	GI	SV9GPV	GI4KSO	2007-06-06	1639	Es	
Portugal	CT	J49K	CT1HZE	2008-05-28	0928	Es	
Sardinia	IS0	J49K	IS0AWZ	2008-05-29	1100	Es	
Scotland	GM	SV9GPV	GM3NKG	2009-06-24	1424		
Slovakia	OM	SV9GPV	OM5KM	2009-06-14	1153	Es	
Slovenia	S5	SV9/G4XUM	S51DI	2006-08-11	0858	Es	
Spain	EA	SV9GPV	EA1YV	2009-06-30	1647	Es	
Wales	GW	SV9GPV	MW0HMV	2007-05-27	1645	Es	

From Greenland

Country	DXCC	Callsign	Nom DX call	Date	UTC	Prop	QSL
Greenland	OX	OX3LX	OX3RA	2004-03-30	1515T FM 70,45 MHz		

These were a few contacts that were made for the first time between the mentioned countries which are found on the internet webpage http://www.70mhz.org/index.php?categoryid=1 Next time I will give you more. And Malta as always we are still waiting. Ironically the Knights of Malta work on this frequency but we don't.

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Materials dielectric constants

Whoever has studied a little physics or electronics know that materials have what is known as a dielectric constant with which is affected the capacity of a capacitor when used as insulation among other things. It affects the voltage between the two capacitor conductors or two or more conductors that have isolation between them before this fails and/or sparks or shorts out.

As one knows, different materials have different constants and different voltages, while they cause a loss when compared to air and more so when compared to vacuum. They are compared with air because we have air on earth while vacuum is a perfect isolator which we find in vacuum valves and some other things such as variable capacitors used in powerful transmitters and vacuum flasks (practically known as Thermos).

For today I am going to give you a table and next time some explanation about them. Only remember that the figures mentioned in the table varies from one manufacturer to the other and probably from one production to another and tests are always made on products and production from different manufacturers.

Substance	Dielectric Constant (relative to air)	Dielectric Strength (V/mil)	Loss Tangent	Max Temp (°F)
ABS (plastic), Molded	2.0 - 3.5	400 - 1350	0.00500 - 0.0190	171 – 228
Air	1.00054	30 - 70		
Alumina - 96%	10.0		0.0002 @ 1 GHz	
- 99.5%	9.6		0.0002 @ 100 MHz 0.0003 @ 10 GHz	
Aluminum Silicate	5.3 - 5.5			
Bakelite	3.7			
Bakelite (mica filled)	4.7	325 - 375		
Balsa Wood	1.37 @ 1 MHz 1.22 @ 3 GHz		0.012 @ 1 MHz 0.100 @ 3 GHz	
Beeswax (yellow)	2.53 @ 1 MHz 2.39 @ 3 GHz		0.009 @ 1 MHz 0.0075 @ 3 GHz	
Beryllium oxide	6.7		0.006 @ 10 GHz	
Butyl Rubber	2.35 @ 1 MHz 2.35 @ 3 GHz		0.001 @ 1 MHz 0.0009 @ 3 GHz	
Carbon Tetrachloride	2.17 @ 1 MHz 2.17 @ 3 GHz		<0.0004 @ 1 MHz 0.0004 @ 3 GHz	
Diamond	5.5 - 10			
Delrin (acetyl resin)	3.7	500		180
Douglas Fir	1.9 @ 1 MHz		0.023 @ 1 MHz	
Douglas Fir Plywood	1.93 @ 1 MHz 1.82 @ 3 GHz		0.026 @ 1 MHz 0.027 @ 3 GHz	
Enamel	5.1	450		
Epoxy glass PCB	5.2	700		
Ethyl Alcohol (absolute)	24.5 @ 1 MHz 6.5 @ 3 GHz		0.09 @ 1 MHz 0.25 @ 3 GHz	
Ethylene Glycol	41 @ 1 MHz 12 @ 3 GHz		-0.03 @ 1 MHz 1 @ 3 GHz	
Formica XX	4.00			
FR-4 (G-10) - low resin	4.9		0.008 @ 100 MHz	
- high resin	4.2		0.008 @ 3 GHz	
Fused quartz	3.8		0.0002 @ 100 MHz 0.00006 @ 3 GHz	
Fused silica (glass)	3.8			
Gallium Arsenide (GaAs)	13.1		0.0016 @ 10 GHz	
Germanium	16			

Glass	4 - 10			
Glass (Corning 7059)	5.75		0.0036 @ 10 Gz	
Gutta-percha	2.6			
Halowax oil	4.8			
High Density Polyethylene (HDPE), Molded	1.0 - 5.0	475 - 3810	0.0000400 - 0.00100	158 – 248
Ice (pure distilled water)	4.15 @ 1 MHz		0.12 @ 1 MHz	
	3.2 @ 3 GHz		0.0009 @ 3 GHz	
Kapton® Type 100	3.9	7400		500
Type 150	2.9	4400		500
Kel-F	2.6			
Lexan®	2.96	400		275
Lucite	2.8			
Mahogany	2.25 @ 1 MHz		0.025 @ 1 MHz	
	1.88 @ 3 GHz	3800 -5600	0.025 @ 3 GHz	
Mica	4.5 - 8.0	3800 -5600		
Mica, Ruby	5.4			
Micarta 254	3.4 - 5.4			
Mylar®	3.2	7000		250
Neoprene	6 – 9	600		
Neoprene rubber	6.26 @ 1 MHz		0.038 @ 1 MHz	
	4 @ 3 GHz		0.034 @ 3 GHz	
Nomex®		800		450
Nylon	3.2 – 5	400		280
Oil (mineral, squibb)	2.7	200		
Paper (bond)	3.0	200		
Paraffin	2-3			
Phenolica (glass-filled)	5 - 7			
Phenolics (cellulose-filled)	4 - 15		0.03 @ 100 MHz	
Phenolics (mica-filled)	4.7 - 7.5			
Plexiglass®	2.2 - 3.4	450 - 990		
Polyethylene (LDPE/HDPE)	2.26 @ 1 MHz	450 – 1200	0.0002 @ 100 MHz	170
	2.26 @ 3 GHz	450 – 1200	0.00031 @ 3 GHz	170
Polyamide	2.5 - 2.6			
Polycarbonate, Molded	2.8 - 3.4	380 – 965	0.000660 - 0.0100	239-275
Polypropylene	2.2	500		250
Polystyrene	2.5 - 2.6	500	0.0001 @ 100 MHz	
			0.00033 @ 3 GHz	
Polyvinylchloride (PVC)	3	725		140
Porcelain	5.1 - 5.9	40 -280		
Pyrex glass (Corning 7740)	5.1	335		
Quartz (fused)	4.2	150 - 200		
RT/Duroid (go to Rogers)	2.20	http://www.rogers-corp.com/mwu/pdf/prodsel.pdf		
Rubber	3.0 - 4.0	150 - 500		170
Ruby	11.3			
Silicon	11.7 - 12.9	100 – 70	00.005 @ 1 GHz	300
			0.015 @ 10 GHz	300
Silicone oil	2.5			
Silicone RTV	3.6	550		
Soil (dry sandy)	2.59 @ 1 MHz		0.017 @ 1 MHz	
	2.55 @ 3 GHz		0.0062 @ 3 GHz	
Soil (dry loamy)	2.53 @ 1 MHz		0.018 @ 1 MHz	
	2.44 @ 3 GHz		0.0011 @ 3 GHz	
Steatite	5.3-6.5			
Strontium titanate	233			

Teflon® (PTFE)	2.0 - 2.1	1000	0.00028 @ 3 GHz	480
Tenite	2.9 - 4.5			
Transformer oil	4.5			
Vacuum (free space)	1.00000			
Valox®		1560		400
Vaseline	2.16		0.00004 @ 0.1 GHz 0.00066 @ 3 GHz	
Vinyl	2.8 - 4.5			
Water (32°F)	88.0	80	0.04 @ 1 MHz, 0.157 @ 3 GHz	
(68°F)	80.4	80	0.04 @ 1 MHz, 0.157 @ 3 GHz	
(212°F)	55.3	80	0.04 @ 1 MHz, 0.157 @ 3 GHz	
Water (distilled)	76.7 - 78.2		0.005 @ 100 MHz 0.157 @ 3 GHz	
Wood	1.2 - 2.1		0.04 @ 0.1 GHz 0.03 @ 3 GHz	

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Internet Webpages

Here you have a few interesting webpages.

New SDR Program (Windows 7/64, Windows 7/32, XP. Later on Linux u MAC)
Rich N1DDY "ralandsman" **rlandsman at acm.org**
http://sites.google.com/site/pebblesdr/

Full Electronic books Free to download
http://www.tech-systems-labs.com/books.htm

Data Books Page
http://www.tech-systems-labs.com/data_books.htm

CQHAM.RU Lots of equipment manuals.
http://www.cqham.ru/sch_eng.html

ICOM Manuals
http://www.marcucci.it/e_download_s.htm

A lot of manuals from different manufacturers, programmes and mods.
http://kb2ljj.serveftp.com/

SDR Radio
http://www.funcubedongle.com/

G3VFP homebrew pages
http://www.g3vfp.org/circuits.html
http://www.g3vfp.org/index.html
http://www.g3vfp.org/download.html

Eddystone users group
http://eddystoneusergroup.org.uk/

Loops Links

http://www.oe1ira.at/sl/loop.html
http://www.qsl.net/mnqrp/Loop/Mag_Loops.htm
http://sivantoledotech.wordpress.com/
http://www.techlib.com/electronics/antennas.html
http://home.earthlink.net/~christrask/Indoor%20Loop%20Antenna.pdf
http://www.oe1ira.at/sl/loop.html
http://www.qsl.net/mnqrp/Loop/Mag_Loops.htm

The Crystal Set Society (Lots of useful information)
http://www.midnightscience.com/

Australian Amateur Radio
http://www.vkham.com/

Everyday Practical Electronics Free Project Archive
http://www.epemag3.com/index.php?option=com_docman&task=cat_view&gid=55&Itemid=38

BITX
http://www.phonestack.com/farhan/bitx.html
http://cqbitx.blogspot.com/

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MARL Activities

New Course

I remind you that the new course for those who want to get an amateur radio license is going to start on Thursday 28 October at the MARL Centre in H'Attard. I encourage all those who know of someone who wants to learn to inform them.

Yahoo Group

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

Do not forget that we may have activities which may not be able to appear on this magazine because it may have already been issued and therefore the notice will be sent on the yahoo group.

Send an e-mail to Ivan, 9H1PI ivan.privitera at gmail.com to become members in the group.

We remind you that whoever wants to can download the Magazine from www.9h1mrl.org/newsletter.htm

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