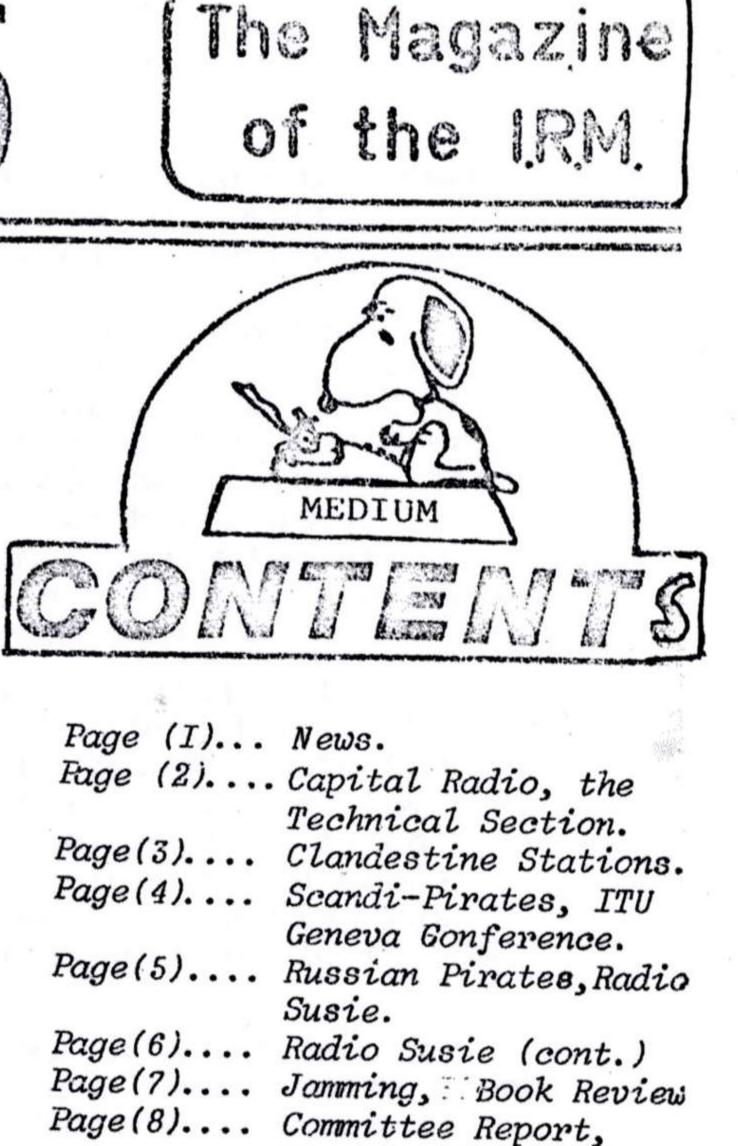
Licence Following the I.R.M.'s application for a licence to operate a local radio station in the Dublin area a reply was received from the Department of Posts and Tele graphs on the I2th February. In the communication it was clearly pointed out that R.T.E. is the only organization in Ireland which is authorised to carry out such broadcasts and no change was contemplated in the situation, "Under existing legislation R.T.E. is the only organization which may be licenced to operate a broadcasting station here and no change in this position is contemplated at present." It was "regretted " that it was not practicable to issue a licence. The service envisaged by the . I.R.M. is a community based subscription sponsored service. Despite the Departments attitude we

13221

Minister refuses

still firmly believe that such a service is not only viable but necessary.Recently Ald. Kevin Byrne called for such a service to be set up in Dublin. The I.R.M. feels that such a service would be equally useful and welcome in other parts of Ireland as well.

manx radio:



The Isle of Man government are once again trying to persuade the Fritish Government to sanction high transmitting power for Manx Radio, the UK's first commercial radio station. Mr. Percy Redcliffe, the chairman of the Manx cabinet, announced this in Tynwald on the 21st of January. Negotiations opened in London on February 4th. The Manx government is concerned at the increasing financial loss which the island's radio station suffers every year.

		 	-
RADI	O REG	ING	

	TT I AL
-	Verification Section.
Page(9)	Letters. *
Page(I0)	Radio Forth. Espionage
	Free Radio League.
Page(II)	Developments of Broadcasting.
•	Broadcasting.
Page(12)	President's Page,
	Belfast Radio.
Page(13)	R adio City, Echo Char
N	-lie Club.
Page(14)	Odds and Sods.
Page(15)	Legal Aspects of
	Radio Caroline,
	Medium Wave DX ing.
1	in the start ong.

### IBA

## sialions

It's all change for Capital Radio, which has moved to 194 metres from its old 539 wavelength. This follows the construction of the station' new transmitting mast and the phasing out of their aerial at Lotts Rd. Power station. Capital is now heard with good strength after eleven p.m. in Dublin on its new wavelength despite interference from Radio City, which operates on the same wavelength. Radio Piccadilly's DJ Roger Day, the veteran ' "thinner record spinner" may well have lost a few more pounds recently when he broke the continuous DJing record with nearly three days of programming. The contract for commercial radio in Belfast has been awarded to "Community Radio Services" (see pageI2)



CAPITAL RADIO - IN TUNE WITH WHAT PEOPLE WANT ....

In a report recently issued by the Radio Industry's Research Committee, Capital Radio has finally had its claim of one million listeners per day substantiated by an independent research organisation. In particular this is a triumph for Capital disc jockey Kenny Everett whose early morning weekday programme was found to draw half a million people alone. Only last October Capital's listeners numbered a mere 365,000 and as the influential British record trade magazine "Music Week" states "this can be viewed as acutely embarrassing for the BBC who evaluated the Capital listenership at a mere quarter of a million only weeks beforehand." After this research poll comes another from Marplan which gives Capital nearly half a million teenagers in its marketing area which stretches from Maidenhead to Southend and from Luton to Crawley.

But life has not been all champaign and caviar for Capital. Just before Christmas the station newsroom had to be shut down. Chairman Richard Attenborough admitted that without this measure the station could not have remained viable. He disclosed that the station will need a quarter of a million pounds to place it on a firm financial footing, although at a press conference in early January Managing Director John Whitney claimed this backing was now certain. So Capital's future looks fairly good while the BBC cuts back on radio and television.

Recently Capital moved to 194 metres from 539, and this has in-

volved a costly publicity campaign. During the move transmissions are going out on both wavelengths to ensure Capital does not lose any of its listeners on the way. The new frequency will also make Capital easier to hear in Ireland and other parts of the British Isles ensuring that even more people remain "in tune with London"!

### TECHNICALITIES ... MEDIUM'S TECHNICAL SECTION

Without delving too deeply into the complexities of radio frequencies, I will try and describe in these articles the make up of the R.F. (radio frequency) Spectrum and how radio travels and is made use of. Also contained in this page in future will be the technical section of our Advisory Service. I hope to draw upon the knowledge of other members of the movement for operating this section.

To start:- Radio waves are generated by the movement of electric current in a wire. The speed at which the current changes direction gives the frequency at which radiation will occur. The length of the wire determines the effectiveness of radiation. A short wire will be a very poor radiator but this is not the only criterion, frequency is also tied in. The higher the frequency the more efficient the radiation. So for a given length of wire as we increase the frequency the amount of radiation increases. This explains why long waves (low frequencies) need long aerials and television sets need short aerials for high frequencies.

Wavelength and frequency are interchangable - i.e. 300 metres is equivalent to I,000 kHz. R.F. energy travels through space at 300 x 106 metres/second. If a radio wave is generated by a frequency of I,000 kHz then every 300 metres the wave repeats itself: Frequency (Hz) x Wavelength (metres) = 300 x 10<sup>6</sup> metres/Second which is the speed of travel of R.F. Energy.

To get back to the length of wire necessary to radiate a signal... Radiation does not take place to much extent until the length of the radiator is of the order of half a wavelength. For example, IOO MHz on the VHF radio band is a wavelength, by formula above, of 3 metres so that the aerial must be about I.5 metres long. This is called a half wave dipole. Usually an aerial for VHF needs special properties and a number of dipoles are used so that the aerial receives signals from one direction only. This can be seen by looking at any outside VHF or TV aerial.

D.C. (direct current) will not radiate when flowing in a wire but A.C. (alternating current) will. The A.C. mains has a frequency of 50 Hz, but to radiate efficiently it would need an aerial of approximately 3,000 kilometres in length. Ireland is about 450 km long, so that a power cable that length would not be very effective

5

5 P

at radiating; however, some power is radiated and if you had a receiver which tuned down to 50 Hz you would receive a signal. I have heard of someone who claimed to have picked up a signal on 60 Hz in this country from the American power system.

Audio frequencies could be transmitted directly, but very inefficiently. The audio band is usually defined as 20 Hz to 20,000 Hz. To transmit the 20 Hz signal would need a very long aerial approximately I5,000 kilometres, which is completely improxicable. It is more efficient to use a higher frequency to "car.y" the audio range from transmitter to receiver.

Low frequencies from 16,000 Hz are used for communication to submarines because these very long waves have the extraordinary property of bending around the horizon and stable communication can be achieved worldwide. Very high TX (transmitter) powers are needed to radiate from the necessarily short aerials. Satelites will make this type of communication unnecessary.

Moving up the frequency scale 40 kHz is a frequency likely to be come across since it is used in tape recorders as a bias oscillator and harmonics of it can be very annoying when trying to record programmes from the radio. (Harmonics will possibly be discussed in future.) 40 kHz is also used for ultrasonics but this is basicly an audio phenomenon but outside the range of human hearing.

Next time we will move in frequency from IOO kHz to I,000 MHz and discuss the different uses to which the different bands are put.

We will also include some problems that have come into our Advisory Service. Normally a private reply will be sent unless certain topics keep recurring....

Please write in with technical or other queries and we will endeavour to reply through these pages or privately to all queries. If a private reply is required please include return postage.

POLITICAL CLANDESTINE RADIO STATIONS - PART II by Jari R. Peltoniemi

OUR RADIO ("BIZIM RADYO"): This station broadcasts from Bulgaria in Turkish. It is operated by the Turkish communisty party. The best time to hear Bizim Radyo is between 2005-2020 hours GMT on 6200 kHz and 5915 kHz. (Editor's Note: I have heard this station on Sunday mornings at 0810-C840 on 6200 kHz with an excellent signal). Station identification in Turkish is "Burasi Bizim Radyo" ("Here is Our Radio"). The address for Bizim Radio is the Turkish Communist Party, Budapest, Fungary. (Editor's Note: Dr. Campbell has suggested that another possible address is the Turkish Communist Party, Berlin, German Democratic Republic.) By the way, there is no information which indicates that this station will, in fact, verify reports, but why not give it a try anyway!!

COURIER OF IRAN ("PEYK-E-IRAN): This station also broadcasts from Bulgaria via the Radio Sofia short wave transmitters. Transmissions are on 9560 and 11415 kHz (with 50 kW transmitters) and on 11695 kHz (with a transmitter of 100 kW). The station is very easily heard on the latter frequency throughout the afternoon. Peyk-E-Iran is operated by the Iranian Pro-Moscow Communist Party. Languages used by this station are Azerbaijani, Kurdish and Farsi, and the best time is between 1500-1530 hours GMT on 11695, 11415 and 9560 kHz and the language is Azerbaijani. Identification in Azerbaijani is "Danishir Peyk-E-Iran Radyosu"; in Kurdish, "Peky-E-Iran Fo Eanglia", and in Farsi, "Inja Radyo-ye Peky-E-Iran" (This is Courier of Iran). The address of this station is P.O. Box 4176, Stockholm 4, Sweden, from where verifications occasionally come. Reports may be in English.

THE VOICE OF KURDISTAN: This station is a relatively new clandestine from Eastern Europe. VOK broadcasts two daily programmes in English - at 1900 and 2000 hours GMT. The programmes have a duration of 20 minutes. The station announces the following metre bands: 252, 283 and 200 metres MW and 49, 41 and 31 metres SW. The station has been heard in West Germany on 5868 and 10050 kHz. Broadcasts are also in Arabic. The address is unknown.

VOICE OF CYPRUS ("KIBRISIN SESI"): VOC broadcasis sometimes on 674

kHz medium wave. The transmitter is located in Anamur, Turkey, and has a power of only 5 kW. The station is operated by the Turkish government. There is an English language broadcast at 1200-1300 hours GMT with a news bulletin at 1230. A possible address is Ataturk Square, Nicosia, Cyprus.

(U)

The best frequency list of all clandestine and revolutionary broadcasting stations of the world have been compiled by Larry Magne, Philadelphia. It contains a total of 13 pages, and the price outside the USA and Canada is 4 international reply coupons which covers airmail postage. The list has been published by Dan Ferguson, North American Short Wave Association, Box 8452, South Charleston, WV, 25303, U.S.A. (The list may, in fact, be sold out by now, so it might be best to check with Mr. Ferguson before actually parting with your money.)

SCANDINAVIAN FREE RADIO STATIONS ... by Jari R. Peltoniemi

basel orecolistor and that lofte of hands. - but

Radio Scandinavia broadcasts irregularly on 6249.5 kHz in Finnish, Swedish and English at 1000 hours GMT on Sundays. The address is c/o the Free Radio League, P.O. Box 46, N-6650, Surnadal, Norway. I have received a QSL card and sticker from the station in 4 weeks. The power of this free radio station is reported to be 60 watts.

Radio Gambina broadcasts in Finnish on 6230 kHz and the power is The address is also c/o the Free Radio League. Reports 30 watts. are verified in about one month.

East Coast Radio is a Swedish station which has a power output of 40 watts. The frequency is 6227 kHz and they have a very beautiful QSL card. The address is the same as for the two stations mentioned previously. Broadcasts are in Finnish and Swedish.

West Coast Radio broadcasts in Swedish on 6225 kHz and, once again, the address is at the FRL.

Radio Poseid International broadcasts in several European languages on 6275 and 6210 kHz with a power output of 60 watts. The QSL is a small photography card and the address is at the FRL.

Radio Tiffany International which is perhaps the best known of the Scandinavian stations is unfortunately now off the air.

### REPORT ON I.T.U. GENEVA CONFERENCE ON FREQUENCY ALLOCATIONS

Under the auspices of the International Telecommunications Union (I.T.U.) the first session of a two part conference on the medium frequency (medium wave) band was held in Geneva from the 7th to the 25th October, 1974. More than 70 I.T.U. member countries and international organisations were represented at the conference, the purpose of which was to prepare the technical standards and frequency planning methods on which the second conference should base its work. The second session is scheduled to convene in Geneva in October, 1975 for a period of seven weeks. Broadcast ing in Europe and Africa (I.T.U. Region I) is regulated by the 1948 Copenhagen Plan.

The Copenhapen Plan uses a basic channel spacing of 9 kHz. The main problem which faces the I.T.U. conference is a steady increase in broadcasting stations in Europe since this plan was formulated. There are now about four times as many transmitters in operation as were provided for in the original plan and this has led to most countries contravening the plan to a greater or lesser extent. Consequently on most frequencies reception after dark is seriously affected by sky wave interference from transmitters operating on the same or adjacent channels.

Many European countries are now restricting the audio frequency band width to between 4.5 and 5.0 kHz. With the present 9 kHz channel spacing and the present day small transistorised receivers this leads to a small but useful reduction in adjacent channel interference. It is clear that countries outside Europe wish for European stations to reduce frequency requirements rather than channel spacing and we must look to the October conference with interest to see what is achieved.

#### RUSSIAN PIRATES RULE THE WAVES!!

The pilot of a fogbound jet circling over Moscow's Vnukovo Airport for an instrument landing was startled recently when he began receiving radio signals from "Prince" and "Angle". Clearly these communications did not come from the Control Tower. Equally bemused were listeners to an official radio broadcast on Ukrainian industrial production which was interrupted by this message: "Danube Calling! anube Calling! Listen all you cats and chicks out there! This is a programme for young people in the Marinka District..."

Illegal broadcasting by home-made transmitters has become a persistant and growing youth cult in the Soviet Union. There are air-ityourself programmes of pop music, teenage talk, messages to girlfriends and even dirty jokes. All of which represents a somewhat refreshing contrast to official State controlled broadcasting, which is apt to be long on lectures about beet growing and the life of Lenin, but short on entertainment.

In the Ukrainian city of Donetsk youthful would-be deejays adopted such sprightly call-signs as "Buzz Saw", "Green Ghost", "Graveyard Goon", "Bullet Hole", "Spark of Love" and "The Invisible Man". The police were not amused. In an effort to make a clean sweep of the cluttered airwaves, I,000 amateur Donetsk broadcasters called "Organ Grinders" by the police were arrested and fined 50 ruples (f28.00) for "violating rules governing the use of radio frequencies". There have been similar efforts to clamp down on underground broadcasts in other major cities.

The Soviet officials claim that their displeasure with the "radio hooligans" who usually steal hard-to-get parts for their transmitters from State factories, is more practical than ideological. The music and chatter of the pirate stations are sprayed so widely across the medium range radio frequencies that they have become a communications hazard. In Donetsk many of the illegal transmitters were on the frequency of the Railway Switching Centre of this important industrial centre. On the inland Sea of Azev, river boat skippers complain that they cannot hear routing orders because of interference by Elvis Presley tapes. Judged even more hazardous, however, were the broadcasts of an operator in Vilna, Lithuania, who has been sentenced to three years in prison for anti-Soviet agitation. His crime: re-transmitting Western news-casts taped from a short wave receiver.

We received the following article from "Radio Susie" - a student radio station broadcasting from Norway:

Radio Susie is a result of a co-operation between "Det Norske Studentersamfund" ((DNS) which means something like "The Norwegian Student Community" and "The Oslo Student Radio Club" (OSRC).

DNS has about 6,000 members, mostly students. They are arranging regular meetings in their own house, "Chateau Neuf". These meetings are concerned mostly with political subjects. Twice a year the members of DNS elect a board, and this board is responsible for detcimining what subjects are to be dealt with at the meetings. This term there has been a board from a group called "Rød Front" which is a leftist group of students. Recently there was an election for the spring term of 1975, and the "Rød Front" group won an overwhelming victory. The opponents this time were the Conservatives and a group called "Grønt Gras" ("Green Grass").

The Oslo Student Radio Club is a non-political organisation, and our main task during the transmissions of Radio Susie is to take care of the technical part of it. But we also take part in the making of the programmes. This year DNS and OSRC have split the broadcasting time between themselves leaving each one hour every night. In their hour DNS has taken up political matters and has treated them from their political point of view. The part of the programme made by the OSRC has not contained political material.

Because of the political contents of the programmes some Norwegian newspapers and even the Norwegian TV started a fuss. They said things like: "Now the authorities permit anything to be broadcast on the air. Fow can they permit this to go on?" All this made the Minister for Education, Mr. Bjartmar Gjerde, say that he would not permit such transmissions in the future. He said this even without hearing the programmes himself. Because of this statement the board of the OSRC decided to stop the transmissions to try and save the possibility of transmissions in the future. This happened on November 20th and on the night of the 21st we announced that it was the last transmission this year.

Now you can ask why the OSRC had to co-operate with the DNS. To this we say that this co-operation has been the base for our permit to have our own radio station since the start in 1950. Without this co-operation we would probably not have been permitted to transmit at all. It must also be said that this would probably be the last year we would be allowed to transmit. The reason for that, they said, was that lots of other organisations had been asking to have transmissions of their own. As the authorities did not want to differ between the different organisations, they would say no to everybody. We in OSRC think that the three student radio stations that have been on the air regularly since 1950 (there have been student stations in Bergen and Trondheim also) should have been treated as a special case since we have nearly 25 years of experience on the air.

Radio Susie, as you will have gathered, is the Oslo students radio station. This year we have been on the air with regular transmissions from November 3rd (1974). The transmissions commence after the closedown of the Norwegian Broadcasting Corporation (NRK) and last for about two hours. NRK's closedown is usually at about 2310 hours GMT, but on Fridays and Saturdays the closedown is usually at 2400 hours. This has confused some listeners, and they believe that they have heard Radio Susie when they have actually heard NRK. Some of these listeners have even been sending reports to us stating programme details from NRK's programmes! This should not occur without having 100% identification one should not send a report.

We have been transmitting on medium wave 1313 kHz with a power of 1 kW and on FM 97.3 MEz with a power of 40 watts. The transmitters are situated at the student city of Kringsja in the hills The MW antenna is stretched between two of the buildabove Oslo. ings in the student city and is hanging about 30 metres above the ground - its direction is East-West. The FM antenna is situated on top of one of the buildings. The FM transmissions reach only a small area of course. It covers most of the Oslo area and has been heard up to 100 km away. The MW transmissions have been heard from Milan in Northern Italy to Laksolv in Finnmark in the north of Norway. We have also been told that we have been heard on board a ship in the Atlantic half way between Europe and North America. Besides these, we have had lots of reports from Sweden and Finland, some from East Germany, quite a few from West Germany, one from Switzerland, a couple from Holland and Denmark and even some from England and Ireland. (Editor's Note: I heard this station on several successive nights and received a QSL card in

verification of my report.) Of course, we have also got some from Norway, but not nearly as many as from Sweden and Finland.

Here are the answers to some questions that we have received: As stated before we have got transmitters of our own and we do not use the transmitters of NRK. The transmitters have been built by students at the University of Oslo, and they have been made better every year. This year our technical manager has made a new transformer for the MW transmitter. This has permitted us to increase the power from 700 watts to 1000 watts.

If you want to get in touch with us please write to the following address, and if you want a reply please enclose two IRC's: The Oslo Student Radio Club, P.O. Box 7, Kringsja, Oslo 8.

RADIO NORD SOUVENIR B & W MINI POSTER ... a poster of the Radio Nord ship m/s "Bon Jour" (now Radio Caroline) is available from Jari R. Peltoniemi, Urheilukatu 9, SF-94100, KEMI 10, Finland. Price 2 IRC's or 15p.

JAMPAING ...



On the 29th March, 1940, in the midst of the Second World War, the BBC issued a statement on jamming and its policies towards it... The corporation was trying to quell the ever-present lobby in Great Britain to jam broadcasts coming from Nazi Germany - with such favourites as the misguided William Joyce, alias "Lord Haw Haw".

The statement included the following observations:

"Jamming is really an admission of a bad cause... The jammer has a bad conscience... He is afraid of the influence of the truth..."

The BBC went on to say that, in Britain, even at that time, no fears existed as to what people should or should not hear.

Indeed, throughout the war years, the BBC seldom resorted to the use of jamming, while the German Minister for Information insisted on this action and legislated to make listening a criminal offence.

Unfortunately, the British policy towards jamming has not been as noble as that of the Second World War... As late as 1970, the government commenced jamming of Radio Northsea, the offshore station which was anchored off the Essex coast. In his book, "To be a Pirate King", Paul Harris tells how this had to have the permission of the Prime Minister himself - Mr. Harold Wilson.

In 1956, the British Government jammed broadcasts from Athens to Cyprus on the grounds that the programmes spread anti-British propaganda and spread riots.

In 1966, Rhodesia commenced jamming of a station in Bechuanaland relaying BBC programmes about Rhodesia.

Jamming is universally condemned in that it is a basic denial of the right of free speech. In fact, jamming is illegal under international law. On the 10th December, 1948, Article 19 of the Universal Declaration of Human Rights came into effect. It states that, "Everyone has the right to seek, receive and import information through any media regardless of frontiers."

In recent years, most jamming has been done by East European states. The USSR and its satellites have jammed, and are continuing to jam, the Voice of America, the BBC, Radio Liberty, Radio Free Europe and even the Vatican Radio, concentrating mainly on programmes in East European languages.

Jamming is confined mainly to the international short wave broadcast bands, and even a brief listening session to any of these bands will confirm that, even in these days of East-West detante, the jammer is still used ruthlessly.

A few medium wave channels are also subjected to jamming - Radio Free Europe on 719 kHz, RIAS, Berlin on 854 and 989 kHz, Radio Peking's Russian Service on 1535 kHz, and so on

Even in this area, it is realised that jamming is ineffective, both technically and psychologically in that people are still able to obtain the information which governments feel they should not have... To repeat the BFC's words.

"The jammer is afraid of the influence of the truth." GURLD RADIO TV HANDBOOK 1975: Containing 440 pages, this is a "must" for all serious DX-ers. This new edition was printed and bound in the U.S. and my copy arrived in Borris last January via the WWDXC of Germany of which I am a member... Cost was 27 IRCs.... A big improvement is noted in the quality of the printing and binding - over the past few years the Handbook did not stand up very well to constant use ... Approximately 240 pages give comprehensive information about practically all known legal broadcasting stations in the world. There is also a section dealing with television around the world... Pages 334 to 416 contain listings in frequency order of all Long, Medium and Short Wave stations... Articles include "How will Short Wave Reception be Today", "New Plan for MW/LW Broadcasting", "Most Suitable Broadcasting Bands 1975", "Standard Frequency and Time Signal Stations", "DX Programmes", "New Plan for MW/LW Broadcasting". There are also maps and charts.... Your Library should have a copy in its Reference Section. If you want to purchase your own copy you should contact Easons of O'Connell St. or Greene & Co. of 16 Clare St. - both in Dublin ... HIGHLY RECOMMENDED.

JOHN DOWLING

HE IRM EXECUTIVE COMMITTEE

.. by MARK STORY (SECRETARY)

At the last A.G.M. of the Irish Radio Movement, a committee of seven was elected to help in the day-to-day running of the organisation. Those elected were Ken Sheehan (President), Mark Story (Secretsry), Roger Lloyd, Steven Iland, Eamonn O'Connor, Paddy Brennan and Billy Ebrill. The committee has now had nine official meetings. To be considered official, a meeting must have a quorum of four members - while matters of a contentious nature are held over until the following meeting. The meetings, which have been held on a weekly basis, have been mainly concerned with the application for a local broadcasting licence, the approaches to the Irish International DY Club in Cork regarding co-operation, the setting up of a technical section by Billy Ebrill, Paddy Brennan and David Ryan, approaches to local members of Dail Eireann, etc.

Two items have been most prominent - namely, the IRM policy document drawn up by the secretary and passed unanimously at two committee meetings following some emendments. (Don't forget, this policy document is available from the secretary for 10p.) Second has been the IRM local radio survey for the Dublin area which, by the time you read this, will hopefully be underway.

The committee, having lost the valuable services of Paddy Brennan, who has gone to Cork for about six weeks, has agreed on, and has asked, Declan Meehan to represent the seventh member, and, in doing so, has found his services most constructive and helpful.

Observers are welcome at these meetings, so if any member of the IRM is interested in attending as an observer he should write, in the first instance, to our President c/o the Mourne Road address to arrange a date.

An important point is the fact that the policies formulated and decisions taken depend on suggestions submitted, so we encourage any member who has suggestions to submit them and attend the meeting as an observer, or set out his point of view on a paper to be read at a meeting.

VERIFICATION SECTION ... with KEVIN RYAN and JOHN DOWLING

Now we have some details of verifications received by Kevin:

Sud Radio, Andorra, verified by QSL card in 25 days. This station operates in French from 0500-2400 hours GMT on 818 kHz. IRC must be enclosed with report.

RAE, Sarmiento 151, Buenos Aires, Argentina, verified by QSL card in 36 days. The station may be heard in English from 2300 to 2350 on 11710 kHz.

ORF, Austria, verified by QSL card in 40 days. Address is Technical Department, F.Q. Box 200, A-1043, Vienna. The station may be heard in English at 1230 GMT on 9770 kHz. Ask for list of Broadcasts to Europe by International Short Wave Stations when writing to the Technical Department.

Radio Station "Peace and Progress", Moscow, USSR, verified by card in 43 days. The report was on an English language transmission to Latin America which is aired on Wednesdays and Saturdays at 0000 in the 31 and 41 metre bands (Note: when reporting to this station, it is sufficient to state the metre band in which the broadcast was heard as neither the station itself or their programme schedule lists any of their frequencies.)

BBC Radio Blackburn on 854 kHz verified by card in 5 days... Radio Clyde verified by card in 9 days.

Radio Cairo, which broadcasts in English from 2145 to 2300 on 9805 kHz verified in 35 days. Address for reports is: F.O. Box 1186, Cairo, Egypt. Radio Nacional de Espana verified by QSL card in 26 days for a report on their English language transmission at 0100 hours (directed to North America). WYFR, Family Radio, 290 Hegenberger Road, Oakland, California, 94621, verified by QSL card in 15 days. Transmitter is located at Scituate, Massachusetts. Veice of America on 15205 kHz verified a report in 65 days... WINB, P.O.B. 88, Red Lion, Pennsylvania, 17356, which may be heard at 2200 hours on 15185 kHz, verified by QSL card in 15 days.

The Voice of Vietnam, 58 Quan Su Street, Hanoi, verified by <u>card</u> in 70 days. Broadcasts in English are on 15012 and 10040 kHz at 1800 hours.

Kevin has received numerous other GSLs recently - including Radio Nederland, Bonaire (16 days); HCJB, Quit, Equidor (24 days); Radio Baghdad (17 days); The Voice of Iran (38 days); Israel (50 days); All India Radio (120 days); Radio RSA, South Africa (15 days); Radio Pakistan (55 days).

## VERIFICATION SECTION -- cont'd ....

Now details of some verifications received by our editor, John Dowling:

Cable and Wireless, Ascension Island, which was heard on 14760 kHz with voice mirror identification: Verification was by folder QSL which was received in about 16 days.

Sud Radio, Andorra, verified my report by QSL card and booklet in 22 days.

CKEC, New Glasgow, Nova Scotia, Canada, verified by QSL card in 12 days. Frequency of this station is 1320 kHz. A second QSL for the same report arrived here about six weeks after the first one!

Verification letters received from the IBA confirming reports on their Liverpool and Sheffield transmitters. Both letters received in 8 days.

Radio Pyongyang, North Korea, verified by card in 86 days. Frequency was 6576 kHz. A large quantity of propaganda literature was also received...

Radio Susie, the students' station in Norway, which operated on 1313 kHz, verified my report by card in 41 days. (See article on this station elsewhere' in MEDIUM.)

WTOC, Savannah, which I heard on 1290 kHz verified by letter in 14 days. Mine was one of the very few reports they have received from Europe.

I participated in the BBC World Radio Club's DX Contest and was awarded their special Certificate which fully verified reports on four different transmitter sites - Ascension Island, Malaysia, Cyprus and Britain.

Radio ZDK in Antigua, which may be heard on 1100 kHz medium wave, verified by

card in 22 days. Report was actually a follow-up to one sent to the station about a year previously.

CKVO, Clarenville, Newfoundland, which is audible on 710 kHz, verified by letter and stated that my report was the first from Ireland. The station has been on the air since October 26th, 1974, at first with test transmissions.

Radio Caribbean International, St. Lucia, which may sometimes be heard on 840 kHz verified by letter in 23 days.

ORTF, Saint-Pierre et Miquelon, (off the coast of Canada), verified by letter in three months. This station is often heard on 1375 kHz. The power output is only 4 kW.

Radio Gnome, Manchester, verified by prepared post card and letter in 53 days.

#### LETTERS FROM IRM MEMBERS

(JOHN DOWLING)

Not many letters received from, members since the last edition was published, so let's have some more for our next "outing"!

From Fintan Conway, 22 Henley Villas, Churchtown, Dublin, 14, we received a long and interesting letter. He was quite pleased with the last edition of the magazine (Edition 4) --- "It appealed to me as a DX-er, an off-shore radio supporter, and as a short and medium wave listener", Fintan stated in his letter.. After reading the articles in MEDIUM about medium wave DX-ing, Fintan decided to have a go at it for himself, and on his first listening session (which went on till 0300 GMT) he logged several stations, including CJON in St. John's, and several other unidentified North Americans.... I hope you have done some more MW DX-ing, though it has to be admitted that conditions this season were anything but good. Just now, conditions are very good as we approach the vernal equinox.

Gerry Delaney, Bushfield House, Hollymount F.O., Co. Mayo, also wrote in praise of MEDIUM 4, and he stated that he logged Radio Europe International and Radio Venus North. No, is the answer to your question, Gerry, the two stations use their own separate transmitters. Gerry has been chasing after the QSLs, too, and has received some from Radio Kiev (40 days), Radio Nederland (special Braille card), Polish Radio (card plus lots of information), Vatican Radio (card after 22 days), Radio Peking (card plus plenty of colour magazines --- I know what you mean, 1've had that experience, too!).

Thanks also to Brian Kavanagh, Eamonn O'Connor, Patrick Callaghan and Kenneth Macinnes for their welcome letters and words of encouragement...

Our thanks, too, to John Campbell and Lucy Mitchell from whom we had the pleasure of receiving a visit on November 9th last.

#### RADIO FORTH (EDINBURGH) ... BY MARK STORY

At 6 a.m. on January 22nd, the first Radio Forth programme went out over the airwaves. Steve Hamilton introduced the new station to Edinburgh's early risers and went into his daily breakfast show, "Daybreak". The Radio Forth switchboard was quickly jammed with calls from people wishing to congratulate the station, and point out how good reception was - even on the very outskirts of Glasgow so there must be a sizable overlap with Radio Clyde.

The new station is broadcasting on 194 metres medium wave and 96.8 MHz VHF and offers a mixture of morning and afternoon M.O.R./pop music format for housewives and others at home, with very specialist music shows, etc.

Examples of these are programme for, and about, the Edinburgh University campus and two drama serials, one about a local historical rogue, the other a nightly adaptation of Dracula. In fact, according to "The Scotsman" dated 16th January, Radio Forth is the only independent local station outside London broadcasting drama, while the station also boasts their own "Poet Laureate" - a former writer in residence at Edinburgh University who writes a weekly poem for broadcasting.

In the age of phone-in broadwasting, a medium which is perhaps overused by the English commercial stations, Radio Forth has a phone-out to obtain the audience reaction to news programmes. There is little doubt that Radio Forth has a vitality which would teach the BBC a lesson or two.

It is interesting, too, to see that Ian Anderson ex Radio Caroline and Northsea has obtained a big job with the station.

This Scottish precedent should provide a useful example for Ireland if local commercial radio is contemplated here. The station is certainly not a pop pulp service but seems to reflect a distinct Scottish sound which is a relief Like its fellow Scottish station, Radio Clyde, the future of Radio Forth looks fairly good, indeed.

Our special thanks to the Irish Radio Movement's Scottish representative, Kenneth Macinnes, who supplied us with dozens of newspaper cuttings which have proved invaluable in the compilation of several articles in this magazine...JD

EXTRACT FROM "READER'S DIGEST - JANUARY, 1975 ... via KEN SHEEHAN

East German agents in the West usually receive ciphered instructions over short wave radio at predetermined broadcast times. The spies are equipped with cellulose cipher scrolls for decoding the five-digit numbers that a metallic-voiced woman reads out at intervals over the 49 metre wavelength at varying times of day or night.

These transmissions have been going on for some 20 years, and even West German security have, in breaking the code, found it to be of no use. Ciphers change very frequently and each agent has his own.

The transmissions mentioned above are very familiar to DX-ers and they may be heard not just near the 49 metre band but also on several other frequencies in the 60 and 90 metre bands, for instance. The numbers are called out in German, but English language transmissions have been heard several times around the 8 MHz band. Transmissions are preceded by what might be described as an intermission signal (tuning signal) .... JD

The FREE RADIO LEAGUE, P.O. Box 46, N-6650 SURNADAL, NORWAY, is an organisation of non-commercial radio stations which was founded on the 8th January, 1974. One of its main purposes is to spread more information on these stations.

Therefore, the FRL publish a bulletin specially for people interested in listening to free radio stations. This magazine, called FRLE RADIO SUPPORTER, includes all kinds of information, articles, tips and the latest news on the pirate radio scene.

The magazine is published irregularly 7 or 8 times a year and the subscription fee is 8 IRCs. Sample copy against 2 IRCs.

If you want to learn more about the pirate stations, to read the latest news, to co-operate with the stations and to support free radio, then why not subscribe to FREE RADIO SUPPORTER?? (JOHN DOWLING)

#### FURURE DEVELOPMENT OF BROADCASTING

The Carlow "Nationalist" recently published an editorial on the new Broadcasting Authority (Amendment) Bill, and we think the following extracts are worthy of inclusion in this magazine:

The Oireachtas and, through it, the country are now being asked to determine the future of broadcasting in Ireland. Dr. Conör Cruise O'Brien, Minister for Posts and Telegraphs, has published his new Broadcasting Authority (Amendment) Bill and its fate will, in considerable measure, decide the way in which broadcasting in this country will develop in the years ahead.

It has been said, especially by politicians, that broadcasting is too important to be left to the broadcasters. There is a degree of truth in this statement. Certainly no democratic State can tolerate a broadcasting service which sets itself up against the State or allows its staff to abuse the airwaves which belong to the public.

But if broadcasting is too important to be left to the broadcasters, there is a sense in which it is too important to be left entirely to the politicians. Often enough, the narrower interests of the politician do not coincide with the broader interests of the people. Politicians, especially when they are in office, do not take kindly to the searching eye which the mass media, in the public interest, can turn on their activities. The truth can sometimes be hurtful, even dangerous. But there are very few instances where suppressing it serves the public interest better than revealing it.

Between the broadcaster dedicated to the highest ideals of his craft and

the politician who has to be a pragmatist, there is - or should be - a creative tension. Broadcasting legislation should be directed towards preserving and strengthing that tension in a fair and balanced way. Judged on this criterion, Dr. O'Brien's new Bill falls well short of the ideal.

To be fair to it, it has some good points. It affords members of the RTE Authority some protection against the arbitrary whim of a Minister who, like Mr. Gerry Collins, could simply remove an Authority at the stroke of his pen. Now a member can be removed from office only by resolution of the Dail and Seanad. The Bill gives statutory force to a Commission which will deal with public complaints against RTE in some important areas. Advisory committees can be appointed by the Authority to help with its work.

But in the critical areas of broadcasting freedoms, the Bill is unsatisfactory. The famous - or infamous - Section 31 of the old Act is replaced by a section which, in effect, adds more restrictions. The new Section 16 empowers the Minister to order RTE to refrain from broadcasting matters which in his opinion "would be likely to promote, or incite to, crime or lead to disorder".

Dr. O'Brien himself rightly criticised the vagueness of the direction issued by his predecessor in 1971. The phrasing of this new Section is hardly any better, its interpretation depending or what is the Minister's "opinion" and to the definition of words like "likely to", "promote or incite to", "crime" and "disorder". A whole Pandora's box of trouble may be lurking here.

Section 13 of the Bill is full of cliches and meaningless exhortations. RTE has to "be responsive to the interests and concerns of the whole community". What interests? What concerns? How is it expected to respond? It has to "be mindful of the need for understanding and peace within the whole island of Ireland". Does it then, refrain from reporting on or discussing another outbreak of sectarian murders in the rorth? It has to "uphold the democratic values enshrined in the Constitution". How?

Section 6 of the Bill empowers the Minister to direct the Authority "to rebroadcast programmes broadcast from any source other than the Authority". This is the clause which will enable Dr. O'Brien to introduce his plan for the rebroadcasting of BBC 1 Northern Ireland throughout the Republic rather than give the second channel to RTE.

All in all, Dr. O'Brien's Bill is a potentially dangerous weapon in the hands of any Government. In a country where, for all its failures and weaknesses, RTE has helped us to understand ourselves and our problems, it could be a disaster....

We trust you will agree that the above article includes some interesting comments on "The Doctor's" new Bill.....JD

### THE PRESIDENT'S PAGE

As a result of a constructive suggestion put forward recently by our Secretary, Mark Story, at the second Annual General Meeting of the Movement, an executive committee was established to look after the day-to-day running of the I.R.M.

This has helped to consolidate the decision-making process, which no longer appears to rest on the basis of consensus, but on votes taken at these meetings in a democratic and frank atmosphere.

Since January this system has been in operation and committee meetings have been held on a regular basis.

A number of other initiatives have also been taken. Our President Ken Sheehan wrote to the Minister for Posts and Telegraphs seeking clarification of the position regarding the possibility of a licence being granted for a local radio station.

The reply came back from the Department of Posts and Telegraphs and it couldn't have been clearer ... "Under existing legislation RTE is the only organisation which may be permitted to broadcast here ... " Well, that's that...! It was added that, "No change in this position is contemplated at present." We should like to make the point that if any member wishes to meet officers of the Movement, this can be arranged by writing, in the first instance, to the I.R.M.'s official address - c/o 406, Mourne Road, Dublin, 12. Informal meetings are held from time to time for this purpose. Some months ago, the editor of MEDIUM, John Dowling, asked the President, "In what direction is the I.R.M. moving?" The reply was like something out of Kung Fu, "The Movement is moving in all directions at the one time." The statement was none-the-less true for all that ... The position of President remains undefined in so far as junction is concerned, but it is not envisaged phasing it out in the immediate future. Our thanks are due to the sterling work carried out on our behalf by Mark Story, Stevie Iland and John Dowling, and also to a rising star in the Movement, Billy the Engineer. They have played a major role in the evolution of the Irish Radio Movement.

A consortium of Northern businessmen and the Belfast Telegraph have been awarded the contract for a new Northern Ireland commercial radio station which should be on the air by the end of this year.... The company, called Community Radio Services, was in competition with Avoniel Broadcasting Services, which involved UTV. The new station will be based at a shopping complex being built at Newtownards. Chairman is Mr. Osborne King. Northern newspapers will be offered percentage shareholdings in the new company - the intended capital is £400,000. The Managing Director of the Belfast Telegraph, who is on the Board of the new station, states that they are looking forward to providing an alternative service to the BBC. He also hopes to introduce programmes which will involve the active participation of the listening public to a great extent...

# RADIO CIPY (LIVENIDOL) ... LYTEACT THAN "THE COMPTENT VIA KENDETE MACINA

DATELINE: 22/1/1975: Radio City has been on the air for less than three months, and only on medium wave (Editor's note - station now also on VHF). The Radio City Programme Controller, Gillian Reynolds, tells us that they have the highest proportion of "produced material" (i.e. other than self-op studio record shows) of any commercial radio station. "Radio at its best," in her definition, "is the informed friend at the listener's ear."

City's claim to be an information station is borne out by its scheduling of news bulletins every hour on the hour, 24 hours a day. Half of the staff of 60 work on programming, and 16 of them are news staff. News editor, David Maker, has speeded up the process of getting the news on the air by introducing a system of recording every item directly on to cartridges. But they haven't yet kept their promise in the franchise application to retain a Merseyside lobby correspondent at Westminster.

Perhaps some of City's newsiness and its more than token interest in the arts is explained by the composition of its holding company. Managing Director and founder of the consortium is Terry Smith, who used to run a local freelance news agency. Directors and shareholders include, as well as the usual local newspaper interests and co-operative societies, Ken Dodd ("the squire of Knotty Ash"); Brenda Blanche, the wife of the Bishop of Liverpool; Carla Lane, writer of the Liver Birds television series; and Sir Harry Livermore, a local solicitor, councillor, and chairman of artistic good causes. Three theatres - the Liverpool Royal Court, Playhouse and Everyman - and the Merseyside Arts Association are represented among the small shareholders.

In City's case, it is perhaps too soon to speculate about what these worthies are likely to get out of their slice of commercial radio. But when most other stations are expecting advertising to show a seasonal slump in the next quarter which can only be **examperated** by a trade recession. City's sales manager, James Dandy, is optimistically pushing package deals in recruitment ads, holiday and travel promotions, and even a "night owl" scheme for reaching Merseyside's 12 per cent of shift workers between 2 & 6 p.m.

Broadcasting hours daily: 24. IBA rental (first year, index-linked):  $\pounds 98,330$ . Subscription capital  $\pounds 300,000$ . Staff 60. Frogramming 30. Cost of 30 seconds prime time spot  $\pounds 27$ . Local/national ratio 60 : 40.

Radio City may be heard very clearly throughout the daytime in Dublin on 194 metres. Down here in Carlow, the signal is mixed with that of BBC Radio Bristol which also broadcasts on 194 metres. Former RTE broadcaster, Arthur Murphy, may be heard on Radio City, so why not listen out for him!

Did you ever hear of the Echo Charlie Club?? Well, believe it or not, there is such a Club in existance in Britain...

The EC Club publish a bulletin irregularly which contains quite a lot of interesting information on the Echo Charlie chaps...

For about 10p you can receive your copy of the magazine, which is called ECHO CHARLIE NEWS, from Box 560, 22 Coldershaw Road, West Ealing, London, W13 9DX, England.

Still don't know what this is all about !?? Then have a listen on Sunday

afternoons around 6600 kHz short wave, and "Echo Charlie" will soon turn you on....or off....but we hope not!

So, if you want to support the pirate QSO (chat) stations, get your copy of ECHO CHARLIE MEWS.....

BBC Radio Four Northern Ireland now has two low power transmitters on 719 kHz - from Belfast and Derry. The Belfast transmitter was formerly used to relay BBC Radio Three to the Belfast area.

The Derry transmitter is ex 1340 kHz which, since January 1st last, carries the programmes of Radio Ulster.

Support the IRISH RADIO MOVEMENT by telling a friend about it - and getting him or her to join. The sub. is still only 50p per annum....

### ODDS AND SODS ... WITH MARK TEE AND JOHN DEE

Don Allen, recently in Dublin at the Revolution Club, revealed that, a few years back when living in the Isle of Man, he was an ardent listener to Radio Caroline International (Dublin) \*\*\* Interesting twist in the Radio Nova legal battle when it became apparent that the accusation was based on laws eliminated in April, 1974. The battle goes on, however, with the RNI lawyer claiming 15,000 guilders for every day the MEBO is detained Hilversum \*\*\* 111 on 1007 kHz (297.9 metres) now off the air at 2300 hours GNT - affording DX-ers the opportunity of hearing WINS in New York on 1010 kHz (297.02 metres) Dave Rogers (Ex RNI and Atlantis) heard on Radio City (Liverpool) re-\*\*\* cently under assumed name, but after a few weeks disappeared again \*\*\* Volunteers required in Dublin to help with IRM questionnaire \*\*\* ABC Europe heard consistantly on Sunday mornings and early afternoon on 6250 kHz with good signal \*\*\* IRM members' interview with Caroline deejay appeared in Dublin University's "Trinity News" recently \*\*\* Help the IRM to increase its membership by asking your friends who are interested in radio to join if they are not interested in radio, get them interested, and then get them \*\*\* We note the name of IRM member, Dr. John Campbell, among the to join! list of co-operators and monitors who help with the preparation of the DX-ers Bible - the World Radio TV Handbook \*\*\* Radio Copernicus and Radio Europe International both raided on the same day by the British authorities \*\*\* Recently two members of Radio Jackie were prosecuted and fined £400 on their . \*\*\* IRM policy document available now on request for 10p first offence to cover cost and postage \*\*\* BBC Radio Carlisle manager, Mr. Tim Pit, would like to open several substations ("local radio within local radio") which would transmit their own local programmes \*\*\* Broadcasting Authority (Amendment) Bill available from the Government Publications Sale Office, G.P.O. Arcade, Dublin, 1, for 72p ... makes interesting reading \*\*\* BBC Radio Three, according to an item in the Guardian (7/1/1975), is due for a massive cut-back in the second wave of the BBC's economic measures \*\*\* Watch out for the return of Radio Valleri on 6260 kHz short wave - they will be back on the air shortly \*\*\* North American medium wave DX very disappointing this winter, but some of the "big ones", such as CJON and WABC, are often heard from before midnight \*\*\* See article elsewhere in this magazine about the medium wave DX-ing season \*\*\* Disc and Music Echo has now dropped its "Free Radio" column, possibly following approaches from the British Home Office \*\*\* Recent ad. for Radio Caroline in "Old Style Free Radio News Sheet" runs "Switched on Girl, caters for all tastes...Willing... Music-Lover...Nautical Inclinations...Anything legal outside 3-mile limit... Dial 259." \*\*\* "Old Style" available from 52 Oakfield Road, Hornsey Vale, London, N4 4LB \*\*\*. Sri Lanka Broadcasting Service now broadcasting to Europe from 1900 to 2000 on 9720, 11725 and 11800 kHz....latter frequency is heard best \*\*\* IRM member, Patrick Callaghan, and editor of MEDIUM, John Dowling, have been members of the World DX Club (Britain) since May, 1966 \*\*\* Membership of the Daffy Don Allen Fan Club only £1.00 a year ... Address is 29 Wybourn Drive, Onchan, Isle of Man.... Remember British or Irish stamps not acceptable in Isle of Man - the island is a separate postal country A special mention now for our Scottish representative, Kenneth Macinnes, \*\*\* and a sincere word of thanks for all the newspaper cuttings he has sent to our editor - keep up the good work, OM! \*\*\* WRTVH 1975 this time has its first entry under ANTARCTIA....station is McMurdo Sound on 6012 kHz - operated by the American Forces Antarctic Network \*\*\* Radio Caroline International (Ex Radio Belinda International) heard on 1320 kHz approximately with pop and Irish country and western music at 0115 hours GMT early on Sunday morning (9/3/1975) - modulation not very good \*\*\* Now is the time to start work on your contributions for the next edition of MEDIUM which will be coming your way shortly in order to make up for the unavoidably long delay between editions 4 and 5 - all contributions welcome .... Please send them to the Editor, John Dowling, Ballytiglea, Borris, Co. Carlow, Ireland \*\*\* Details of MONITOR magazine available from 31 Avondale Road, Benfleet, Essex, England... Don't forget return postage when enquiring \*\*\* Sierra Leone Broadcasting Service may now be heard at night (to closedown at 2330 hours GMT) with quite a good signal - the station operates on 3316 kHz and must be using a new 250 kW transmitter...broadcasts are in English \*\*\* "Oldtimer" Charley One heard calling in the EC band on Sunday (9/3/1975) \*\*\* Radio Caroline North still heard on Sunday afternoons on 1148 kHz (261.32 metres) on Sunday afternoons ... there is a heterodyne with the IBA stations on 1151 kHz (260.643 metres). Cable and Wireless utility stations are now verifying reports with a \*\*\* folder QSL giving full verie data - up till recently C & W stations were impossible to verify --- of course, you are not really supposed to listen to them...! That's about the lot from this section for this time .... MT & JD

MEDIUM is the quarterly publication of THE IRISH RADIO MOVEMENT, the official address of which is:

C/O 406 Mourne Road, Dublin, 12 President is KEN SHEEHAN; Secretary is MARK STORY; Editor is JOHN DOWLING On behalf of all the members of the IRM, I wish to place on record our thanks to the editor of "Trinity News" for allowing us to use the IBM "golfball" typewriter in the preparation of five pages of this magazine - JD

RADIO CAROLINE ... LEGAL ASPECTS ... by MARK STORY

The recent appearance of Radio Caroline off the English coast once again brings up the legal position of offshore radio. It is interesting to note the continued existance of Caroline in spite of the ratification of the 1965 Strasbourg Agreement- and the obvious difficulties which the station must face.

One of the chief legal questions asked about Caroline is why can't the ship be boarded and silenced by the British or some other government. The answer to this is fairly straight forward... Radio Caroline broadcasts from a ship anchored in international waters on the high seas, and no state has jurisdiction over this area, nor can any state legislate with regard to it. What states can do and have done is make it illegal for citizens to tender, work on or advertise on the broadcasting ships.

Jurisdiction over ships on the high seas is placed in the state where the ship is registered. The present state of registration of Radio Caroline is unknown - in fact, it may well be that the ship is unregistered; if this is so, the British or another government might be able to board and silence the station although the legal aspects of unregistered ships are unclear. Fortunately for Caroline, if government agents did board the ship and if it was, in fact, registered in some country other than the country whose agents were boarding this would be a very serious breach of international law in which a state challenged the sovereignty of another. As one writer said, "War has been declared for less!!" While Caroline's place of registration or indeed existance of registration is unclear Britain or any other government could never board the ship. Even when the ship was boarded, only nationals of the country concerned would be affected unless a serious crime had been committed. Broadcasting is not in that catagory!

Is Caroline an "illegal" station? - the short answer is NO. Caroline is unlicensed, it is true, but because it broadcasts from the High Seas a "res communis" no licence is necessary. Radio Caroline does not possess an ITU authorised frequency, but then a host of other countries are in the same position. If this position makes Caroline illegal (which it does not) they are in good company with countries such as the Vatican State and the United States of America...

How can Caroline survive? - the answer to this lies in Radio Caroline's Dutchspeaking daytime sister-station, Radio Mi Amigo, which has a vast amount of paid advertising. It is illegal to advertise directly on a "pirate" station but it is not illegal to place an advertisement in a magazine, paying a very high price and then having the advertisement read out over the air as "information". There lies the answer.

Finally, it is worthwhile to quote Professer JES Fawcett from his book "The Law of Nations": "Broadcasting from ships on the High Seas - the so-called radio pirates are not, of course, pirates under the Convention (on the High Seas) or in the traditional sense...so long as they remain outside the territorial

jurisdiction of a coastal state it cannot board or arrest the ship ... "

MEDIUM WAVE DX-ING with JOHN DOWLING: Unfortunately, due to lack of space this. section is being cut back, but we shall endeavour to get across a few points ... Firstly, the MW DX season which commenced last September has been very poor with just some very short exceptional periods. Regular stations such as CKVO (710 kHz), WINS (1010 kHz), WNEW (1130 kHz) and CKEC (1320 kHz) are heard without difficulty on the majority of nights - and, of course, CJON in St. John's on 930. kHz comes in like a "local" cuite often. A second point is the fact that conditions just now (9/3/1975) seem to be improving and it might be worthwhile to burn the midnight oil in search of trans-Atlantic DX. A third point is the fact that conditions over the path from Latin America have been much more favourable than over the North Atlantic path ... Several Brazilian stations have been logged and also stations such as Action Radio in Surinam on 560 kHz, R. Capital in Caracas on 710 kHz, Radio Paramaraibo on 725 kHz, Radio Demerera in Guyana on 760 kHz, Radio Caribbean in St. Lucia on 840 kHz, Radio Jornal in Brazil on 940 kHz, Radio Paradise in St. Kitts on 1265 kHz, Radio Globo in Brazil on 1180 kHz. VOCM relay noted on 1240 kHz at 0050 on 8/3/75 - power? 250 watts! .....JD