

MR JOHN DOWLING,
BALLTIGLEA,
BORRIS,
CO CARLOW,
IRELAND.

BIG M RADIO, ✓
C/O TOP RANK RECORDING
STUDIOS.
BREE,
CASTLEBLAYNEY,
CO MONAGHAN.

DEAR JOHN,

THANK YOU VERY MUCH FOR YOUR VERY INTERESTING
REPORT ON "BIG M" RADIO FROM CO CARLOW, WE WERE
VERY PLEASED TO RECEIVE IT. I AM SORRY MY REPLY TO
IT IS NOT AS NEAT & TIDY!

BEFORE GOING FURTHER, I WILL ANSWER YOUR QUESTIONS
CONCERNING "BIG M" (RADIO MONAGHAN).

1/ WE HAVE NO CONNECTIONS WHAT SO EVER WITH 'BIG M'
FROM MULLINGAR. AS YOU CAN SEE FROM THE PHOTOGRAPH THE
TRANSMITTER IS NOT THE USUAL "PIRATE" RADIO STATION AFFAIR.
(MORE INFORMATION ON THE TRANSMITTER & AERIAL FOLLOWS LATER)
2/ THE STATION HAS BEEN ON THE AIR FOR ABOUT $3\frac{1}{4}$
MONTHS, UNTIL A FEW WEEKS AGO WE WERE CLAIMING TO BE ON
218 METRES ALTHOUGH WE WERE ON 234M APPROX! MY FAULT!
CONVERTING THE FREQUENCY TO WAVELENGTH ON MY CALCULATOR
I MADE A MISTAKE AND HENCE THE WRONG WAVE LENGTH CAME
OUT. AS YOU CAN IMAGINE EXPLAINING TO THE LISTENERS
THE CHANGE IN WAVELENGTH FROM 218 M TO 234 M WITH
OUT ACTUALLY MOVING ANY WHERE ON THEIR TUNING SCALES
WAS A LITTLE EMBARRASSING! BEFORE "OFFICAL" BROADCASTING
STARTED THE STATION WAS ON THE AIR INTERMITTENTLY
DURING THE WEEKS FROM MARCH 1979^{ONWARDS}, ON VARIOUS FREQUENCIES
AROUND 220 TO 234 METRES.

3/ DAILY TIMES OF BROADCASTING

FROM 9AM TO 9PM CONTINUOUS DAILY, SIX DAYS PER
WEEK. I.E MONDAY TO SATURDAY INCLUSIVE.

THE STATION DOES NOT BROADCAST ON A SUNDAY.

PTO →

4 TYPES OF PROGRAMMES:-

THE PROGRAMMES ARE TWO HOURS IN DURATION FOR MOST DJ'S, ALTHOUGH THERE ARE SOME 3 HOUR SHOWS DURING THE WEEK. EACH PROGRAMME IS PRODUCED BY A DIFFERENT DJ AND MOST TYPES OF MUSIC TASTES IN OUR SERVICE AREA ARE CATERED FOR. MOST OF THE MUSIC IS COUNTRY & WESTERN & "LIGHT" POP. A LIST OF DJ'S AND PROGRAMMES IS ENCLOSED (I HOPE!) SPONSORED PROGRAMMES ARE SOMETIMES BROADCAST BUT MOST ADVERTISING IS OF THE TRADITIONAL "IBA" TYPE.

5 TECHNICAL INFORMATION:- (AT LAST MY BIT!)

THE TRANSMITTER IS NOT XTAL CONTROLLED.

AS YOU CAN SEE FROM THE PHOTOGRAPH THE TRANSMITTER IS A PROFESSIONAL MF & HF UNIT. (THAT'S ME INFRONT OF IT)

OUR FREQUENCY IS 1,283.4 KHZ, ALTHOUGH WE MAY BE MOVING SLIGHTLY LOWER IN FREQUENCY BY A FEW HUNDRED HERTZ TO PREVENT HETERODYNING WITH A EUROPEAN STATION AT NIGHT ABOUT 7.30 PM ONWARDS.

(INCIDENTLY THE LIGHT FOR THE PHOTOGRAPH WAS PROVIDED BY A $\frac{1}{2}$ KW FLOOD LAMP ATTACHED TO THE AERIAL SOCKET)

THE TRANSMITTER IS COMPOSED OF THE FOLLOWING PARTS (SEE PHOTOGRAPH)

AT THE TOP POWER AMPLIFIER SECTION (LINED WITH ASBESTOS), AND AERIAL TUNING UNIT.

TOP RIGHT UNIT (THE ONE I AM TUNING) MASTER OSCILLATOR AND DRIVER UNIT.

IN THE MIDDLE:- AUDIO PRE AMP & MODULATOR.

BOTTOM UNIT:- POWER SUPPLY

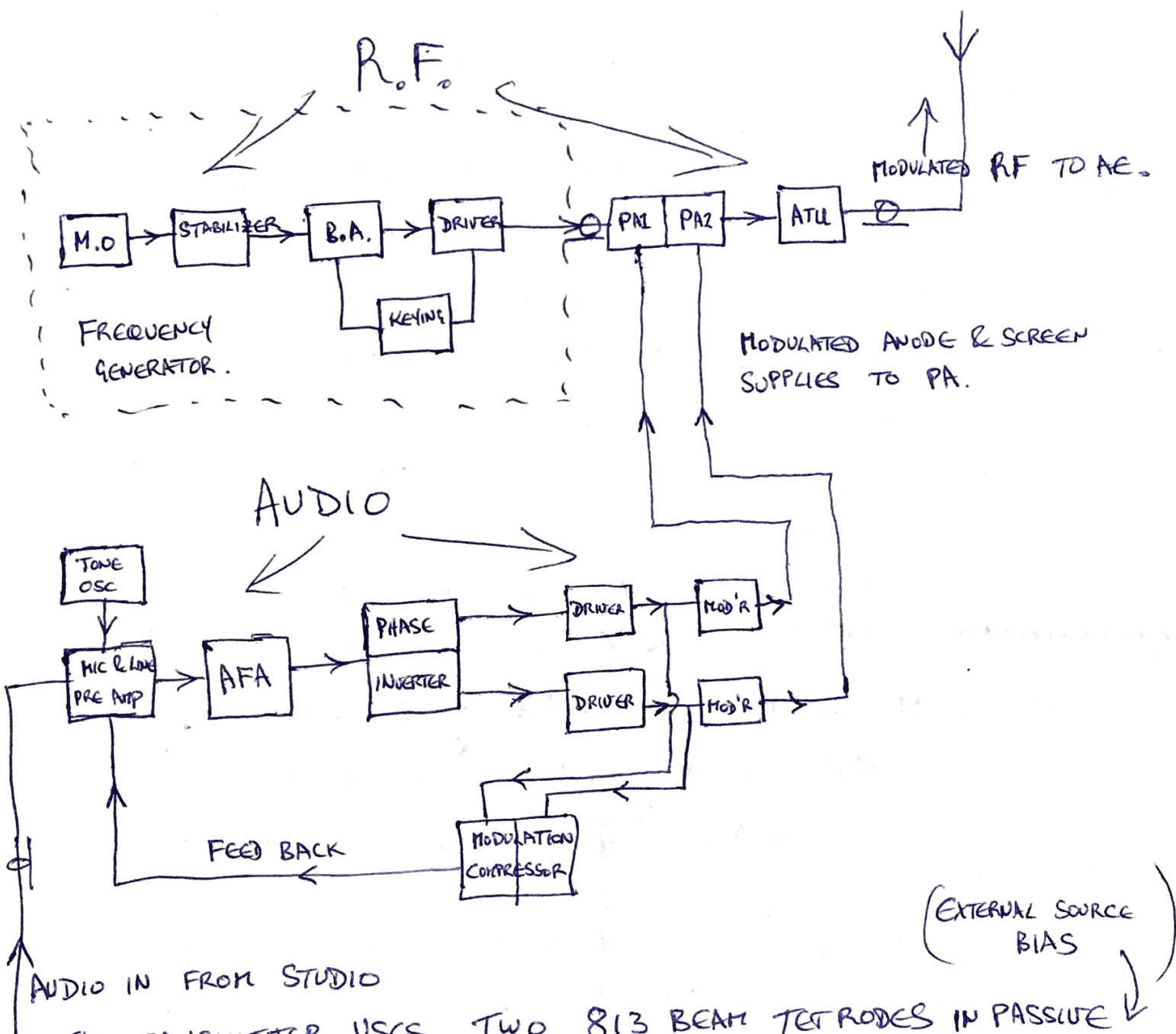
AT THE VERY TOP (NOT VISIBLE IN PHOTOGRAPH) EXTERNAL POWER SUPPLY TO POWER RELAYS.

THE TRANSMITTER WEIGHS ABOUT SIX CWT, AND IS PROTECTED AGAINST FAULTS IN ALL SECTIONS BY FUSES, RELAYS AND SAFETY SWITCHES.

THE TRANSMITTER WILL NOT OPERATE UNTIL ALL GATE SWITCHES, 2 SAFETY SWITCHES AND RELAYS ARE CLOSED. (AND THERE'S A LOT OF THEM!)

THE TRANSMITTER IS OPERATED BY REMOTE CONTROL AND IS LOCATED 100 YARDS FROM THE STUDIO.

A BLOCK DIAGRAM OF THE TRANSMITTER IS SHOWN BELOW



THE TRANSMITTER USES TWO 813 BEAM TETRODES IN PASSIVE GRID AS THE P.A. DRIVEN BY 25W DRIVE FROM THE DRIVER, AN 807 BEAM TETRODE.

THE TRANSMITTER IS ANODE AND SCREEN MODULATED BY TWO 813'S CONNECTED AS ^(HIGH GAIN) TRIODES, DRIVEN BY TWO 807'S.

THE TONE OSCILLATOR IS USED IN CONJUNCTION WITH THE MUSIC FROM THE STUDIO (AND AN OSCILLOSCOPE) TO SET THE AUDIO COMPRESSION IN THE TRANSMITTER TO OBTAIN 100% MODULATION ON ALL INPUTS I.E. MUSIC OR SPEECH.

TRANSMITTER ^{AUDIO} PRE-EMPHASIS IS DETERMINED FROM THE STUDIO MIXERS.

THE TRANSMITTER POWER IS 450 WATTS DC INPUT & 765 WATTS PEAK WITH 100% MODULATION.

IN THE PHOTOGRAPH THE BLACK SINGLE LEAD TO MODULATOR FROM THE POWER SUPPLY UNIT (PSU) CARRIES +1,600 VOLTS DC AT $\frac{1}{2}$ AMP. THE MULTIWAY LEAD (4 WIRES) CARRIES MAINS 230VAC TO MODULATOR AND RF UNIT POWER SUPPLIES, +400VDC AT $\frac{1}{4}$ AMP AND +12VDC FROM MODULATOR TO POWER SUPPLY VIA GATE SWITCHES ETC, TO PSU RELAYS.

THE WIRE (WHITE) TO THE MODULATOR UNIT CARRIES AUDIO INTO TRANSMITTER FROM STUDIO. THE YELLOW EHT WIRE CARRIES MODULATED +1,600 VOLTS TO P.A. ANODES & THE BLUE EHT WIRE CARRIES MODULATED +400 VOLTS TO THE SCREENS OF THE P.A. THE THICK BLACK WIRE TO THE RF UNIT FROM THE MODULATOR IS MULTIWAY & CARRIES HT & RELAY SUPPLIES TO AND FROM THE MODULATOR & RF UNIT.

THE TOP METER ON THE RF UNIT MEASURES AERIAL CURRENT ("BIG M" IS PUTTING 6 AMPS INTO THE AERIAL)

THE MIDDLE METER MEASURES P.A. ANODE CURRENT, "BIG M" IS 300 mA (MAX DIP AT RESONANCE) ANODE CURRENT

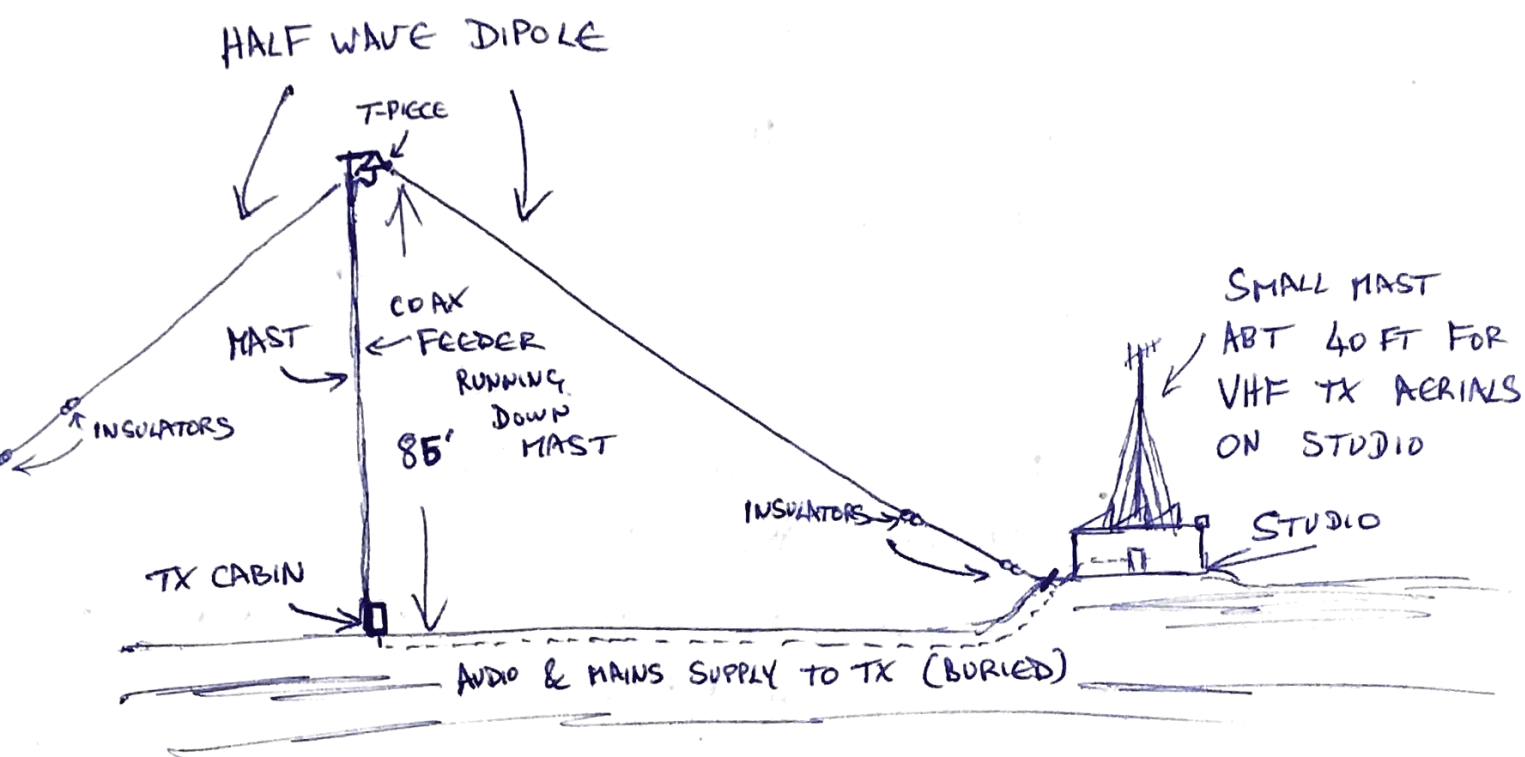
THE LOWER METER MEASURES GRID DRIVE. "BIG M" IS ≥ 15 mA GRID DRIVE.

THE LOWEST METER (ON THE POWER SUPPLY) MEASURES MAINS VOLTAGE TO THE TRANSMITTER. "BIG M" RUNS ON SINGLE PHASE 230VAC SUPPLY. (THE TRANSMITTER USED TO "TRIP," IE CLOSE ITS SELF DOWN, ~~JUST~~ JUST AFTER TEA TIME ON OCCASIONS SINCE THE MAINS VOLTAGE WOULD RISE OFF LOAD!)

"BIG M" CONSUMES 1.4 KW FROM THE MAINS (GLAD I DON'T PAY THE ELECTRICITY BILL!)

AERIAL:-

THE AERIAL IS A HALF WAVE DIPOLE (ABOUT 340 FEET) IN A SLOPPING CONFIGURATION SUSPENDED IN FREE SPACE FROM AN 85 FOOT MAST. THE DIPOLE IS CENTRE FED FROM 90 FEET OF UR67/RG8U COAXIAL CABLE.



AT THE MOMENT THE AERIAL IS RADIATING MOSTLY TOWARDS MONAGHAN AND DUNDALK. IE SW AND NE IN THE DIRECTION OF THE SLOPES. THEREFORE NOT TOO MUCH POWER GOING TOWARDS CO LOUTH. THE AERIAL ON THE MAST OF THE STUDIO CARRIES A FOUR ELEMENT ANTENNA FOR BROADCASTING ON 100 MHz VHF FM.

OUR SERVICE AREA WOULD BE AT LEAST 15 MILES IN ALL DIRECTIONS, IE CASTLEBLANEY, KEADY, MONAGHAN, DUNDALK, CARRICKMACROSS, BALLYBAY, CROSS MAGLEN, COOTEHILL ARMAGH ETC (I HEAR IT VERY WELL IN ARMAGH) AND WHEN MOBILE I CAN HEAR IT UPTO GARVAGH IN CO DERRY, LISBURN CO ANTRIM SLANE CO MEATH, BALLYSHANNON & DONEGAL. THE RANGE OF 15 MILES QUOTED IS FOR A RELIABLE SERVICE AREA TAKING INTO ACCOUNT PEOPLE USING RECEIVERS WHICH ARE NOT TOO GOOD (HONG-KONG SPECIALS). WE PLAN TO ERECT A QUARTER WAVE VERTICAL ANTENNA IN AN L CONFIGURATION (POSSIBLY AT A NEW SITE & USE THE VHF TX TO RELAY THE AUDIO FROM THE STUDIO TO THE MF TX) WHICH SHOULD IMPROVE OUR SIGNAL CONSIDERABLY. (EVERY OTHER STATION WE KNOW THAT USED A DIPOLE TOLD US IT WAS A DEAD LOSS! WE DON'T SEEM TO BE DOING TOO BAD WITH IT BUT A VERTICAL ANTENNA IS OF COURSE WHAT IS REQUIRED ON MEDIUM WAVE.)

PTO →

So JOHN, I THINK I HAVE COME TO THE END OF THE INFORMATION REQUIRED. WE WILL BE SENDING YOU DOWN THE LATEST PROGRAMME INFORMATION AND STICKERS ETC, IN THE NEAR FUTURE. SO IN THE MEAN TIME IF YOU WANT MORE INFORMATION JUST RING DUNDALK 31822 WHICH WILL PUT YOU THROUGH TO US AT "TOP RANK" ENTERTAINMENTS (HOME OF COUNTRY & WESTERN) "TOP SPIN" RECORDS, "ENTERTAINMENT NEWS" ETC, AND WE WILL PLAY YOU A REQUEST. SO LOOK FORWARD TO HEARING FROM YOU. WHEN YOU DO GET THROUGH ASK FOR TONY, THE STUDIO ENGINEER AND HE WILL GIVE YOU OTHER TELEPHONE NUMBERS YOU CAN USE TO CONTACT "BIG M".

SO MANY THANKS AGAIN JOHN FOR THE REPORT AND HOPE YOU TUNE INTO US REGULARLY. PLEASE RING US AND LET US KNOW IF YOU RECEIVE THIS LETTER OK?

ALL THE BEST FROM "BIG M"

JAMES FINNEGAN
(TRANSMITTER ENGINEER)

P.S. TONY, THE STUDIO ENGINEER, HAS A TRIO 9R59DS AS WELL (I SOLD IT TO HIM).

P.P.S. PLEASE PARDON THE POOR SPELLING, I'M ONLY THE ENGINEER.

P.P.P.S (!) WE WERE OFF THE AIR FOR A WEEK A FEW WEEKS AGO WHEN THE STATION WAS RAIDED BY THE POSTS AND TELEGRAPHS. THEY TOOK THE TOP SECTION OF THE TRANSMITTER BUT WE WERE ABLE TO GET A REPLACEMENT. THE ORIGINAL ONE IS NOW IN DUBLIN CASTLE!

P.P.P.P.S IF ANY OF YOUR FRIENDS IN ENGLAND CAN HEAR US WE WILL BE ONLY TOO PLEASED TO QSL THEIR REPORTS. WE ALSO LOOK FORWARD TO SEEING YOUR ARTICLE IN THE HOBBY RADIO MAGAZINES AND WOULD APPRECIATE INFORMATION CONCERNING DATE OF PUBLICATION ETC.