

# Using TETRA

Sep 2017

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## Background:

The National Digital Radio Service (NDRS) or TETRA is a secure communications platform for emergency state assets in Ireland. Uniquely it provides Air-Ground-Air coverage giving fixed and rotary wing aircraft excellent communications which includes Ireland's islands & up to 20kms off-shore.

All ambulance and Garda personnel are issued with their own handsets and there is a TETRA system in all the rescue and military helicopters. All Naval ships are equipped as well, but their range is limited to a few miles off the coast. Most voluntary services are changing over to TETRA. To date the fire services have not moved over to TETRA.

TETRA is similar to the old radio system, in that if you simply Press the Talk (PTT) button situated on the side of the telephone like handset, you will broadcast on the Talk Group (channel) that the radio is set to. As this is a National system, every single user on that Talk Group would hear your broadcast. To mitigate against this, all TETRA sets can secure call each other.

Individual Short Subscriber Identity (ISSI) is the TETRA sets unique "telephone" number. You can call any TETRA set in the country, provided you know the callers ISSI number. This call is entirely secure and nobody but the 2 sets calling each other can hear the conversation.

## CUH Nursing Station:

There are 2 TETRA base stations labelled "AMBULANCE" and "MEDICO CORK." These are 2 completely separately radios.

The National Emergency Operations Centre (NEOC) in Tallaght uses the "AMBULANCE" base-set as a secure communications platform with every hospital in Ireland. This is how CUH Emergency Department gets Resus standby requests. It is permanently set to the Talk-Group "4 EMER 5".

The "MEDICO Cork" base-set is managed by CUH. Its sole purpose is receiving of telemedical calls from the services various users. All speech on this base-set is securely recorded and stored in CUH. It should be permanently set to the Telemedicine Talk Group "NF-UTILITY."

## NF-UTILITY

This talk group is assigned to MEDICO Cork. Its only purpose is Telemedicine in the state. Only the Coast Guard Rescue Coordination Centres, the NEOC, Helicopters, and Naval vessels can listen to or broadcast on this Talk Group. Individual personnel can only access the base-set by ISSI to ISSI calling.



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## When you hear a Base-Set Ringing


1. **Look at both screens to work out which radio is ringing, as indicated by a flashing RED light !!**
2. Put the handset to your ear and hold down the PTT switch on the side of the handset – this opens the channel
3. Whilst holding down the PTT switch state “[your call-sign]” followed by “Send your message, OVER” and then release the PTT switch and listen.
  - a. If answering the AMBULANCE set, your designated call-sign is “CUH EMERGENCY”
  - b. If answering the MEDICO Cork set, your designated call-sign is “MEDICO CORK”
4. You must wait for the person on the other set to finish their sentence, which should be followed by the words “OVER” before you speak. To Speak, simply hold down the PTT switch, speak your reply and state “OVER” when you finish. You must then release the PTT switch and listen to the reply.
5. When the conversation has concluded, the person finishing the conversation should state their call sign, followed by the word “OUT”

## If the Coast Guard or Helicopter ask to speak on NF-Utility Talk Group.

1. You will receive the request either by telephone (usually) or via an ISSI-to-ISSI call to provide support on the open Talk Group NF-Utility
2. After acknowledging the request, make a note of the Callsign e.g “Rescue 115” wanting to talk to MEDICO Cork. Importantly you must then CLEAR the ISSI CALL, by pressing the RED button on the Base Set. 
3. Now Simply use the PTT button as before, to call the person back on the now open channel. Remember that a control room is listening in to your conversation.

## If the ISSI-ISSI call cuts out

This can occur if one party drops their signal (very unlikely), but usually happens automatically after 30 seconds of no transmission over the ISSI-ISSI connection. Ie. If you go to find a registrar to take the call!

1. Press the GREEN telephone button. 
2. Now Press PTT and immediately release it. The last callers set will ring.
3. When they answer (ringing stops), start your conversation.

