

NEX AID RADIO COMMUNICATIONS PLAN

Cross border Protocol - Agreement

**between Izola General Hospital and Azienda Sanitaria
Universitaria Giuliano Isontina in the event of a mass-casualty
incident**

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Introduction

The cross-border radio communications protocol and data transmission in the event of a large-scale exceptional occurrence require the earliest stages of preparedness and an emergency response system as well as a joint radio communications protocol in the cross-border program area. Each participant in the emergency services network must make difficult and important decisions in situations that completely differ from everyday ones. Changes in the organization of work, reallocation of staff and equipment as well as effective communication become as important elements of work as taking emergency action steps. The right decisions of everyone involved - from the location of a mass-casualty incident to the final care in hospitals - determine the number of survivors and reduce morbidity, mortality and disability in a mass-casualty incident.

The purpose of the Communications Protocol between the *Izola General Hospital* () and partner institution *Azienda sanitaria universitaria Giuliano Isontina* (hereinafter referred to as *ASUGI*) is to ensure an adequate response of the institution on each side of the state border in the event of a mass-casualty incident in the cross-border area of Slovenia and Italy. Appropriate communication, a change in the organization of work and anticipation of measures alleviate the effects of such incidents. The key measures to alleviate in the effect of such incident are the following:

- the establishment of an effective system of radio communication between institutions on both sides of the state border between Slovenia and Italy,
- management/coordination, announcement of an alarm,
- preparation of hospital premises for casualties or the injured,
- staff allocation and equipment distribution,
- a change in operating procedures,
- formation of sectors and hospital incident command team (HICT) and adaptation of the triage system.

CHAPTER 1

INTEGRATED RADIO SYSTEM

Integrated radio system is currently among the most innovative in the radio telecommunications area. Besides the usual radio network, it has a digital communication system with Digital Mobile Radio (hereinafter referred to as DMR) standard, which provides private, group and general calls. Among its numerous functions, the GPS position of teams in the field allows monitoring the operational situation. Thanks to the two-way system, communication is enabled with the Slovenian partner in case of a mass-casualty incident without interfering with the usual activity of the other services.

All activity is managed and monitored by the Operations centre. It uses TRBOnet IP Dispatch Solution which allows geolocation, radio and data traffic, as well as the ability to connect various groups with each other.

There are two radio operator stations set up at the Operative Centre (Centrale Operativa Farneto) in Italy.

The antenna installed at the Operative Centre (Centrale Operativa Farneto) allows communication strictly in the urban area in the absence of the repeater bridge.

1.1 Radio frequency and modality

For the radio communication a very high frequency (abbrev. VHF) band is used, the assigned radio frequency is 163.575 MHz authorized by the Italian *"Ministero delle comunicazioni"* and Communications Networks and Services Agency of the Republic of Slovenia. DMR digital radio standard is used. On the radio devices, the "NEX AID Area" is preset with 3 channels (hereinafter referred to as CH). CH 01 is available for communication using digital radio repeater, while CH 02 and CH 03 are available for direct digital communication.

Radio Frequency	NEX AID AREA	
163.575 MHz	CH 01	Digital radio repeater
	CH 02	Direct digital communication 1
	CH 03	Direct digital communication 2

Table 1: NEX AID radio frequency and areas

1.2 Radio Repeater

The radio repeater is located on Mount Belvedere (460m above sea level) with a double YAGI 3 directional antenna (see Image 1) pointed on Izola General Hospital at a straight-line distance of 18 km (see Image 2).

The radio repeater also supports the Wawe systems that can connect to the repeater by The Global System for Mobile Communications (GSM) and Internet Protocol (IP) connection permitting communication with NEX AID channels from all over Europe.

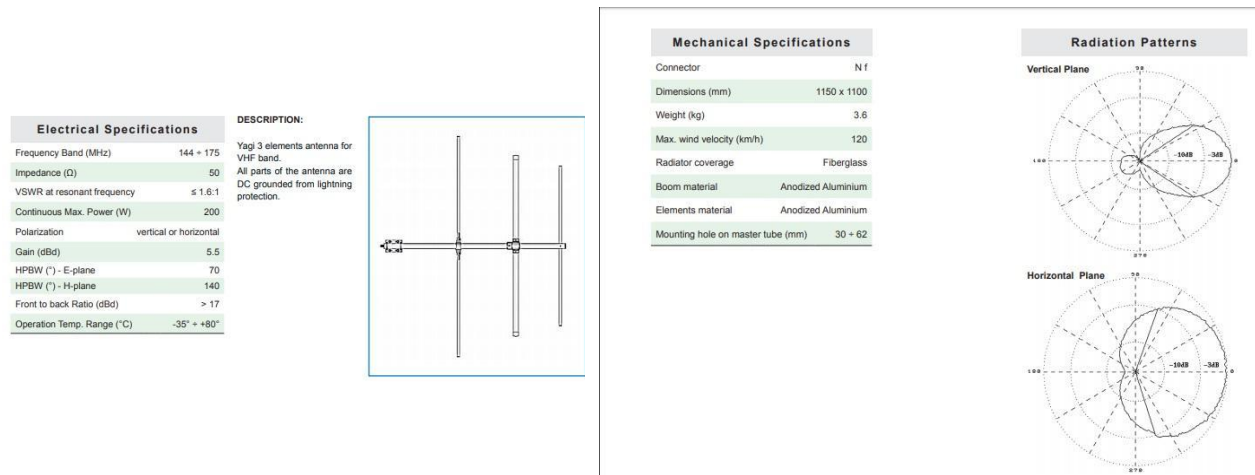


Image 1: YAGI 3 directional antenna specifications



Image 2: Distance between radio repeater and Izola General Hospital

The radio repeater has backup systems that allow its functioning even when electrical power supply is off; this allows also the functionality of the PC allowing the communication with TLK 100 radio (Wawe radio system).

1.3 Portable radio Motorola DP 4801



Selector

- **Selector A - power ON/OFF and volume adjustment**
- **Selector B – channel change:** the selected channel is shown on display

Keys:

- **Key 1 – telephony modality (ON/OFF):** When the radio is turned on, is set in telephony modality ON. By clicking key 1 and selecting telephony OFF only selective calls are allowed
- **Key 2 - PTT (“push to talk”)**
- **Key 3 – selective call to Farneto Dispatch Center**
- **Key 4 – key lock**
- **Key P1 – zone change ASUGI/NEX AID**
- **Key P2 – radio info:** to see the principal information of the radio (Image 3)

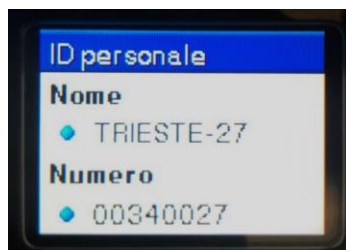


Image 3: portable radio info on display

- **Key 6 – emergency call:** for activation press the key and hold it for 3 seconds. An emergency signal will be activated at dispatch center with an acoustic alarm and a display notification (Image 4). To stop the emergency modality press and hold the key for 1 second.

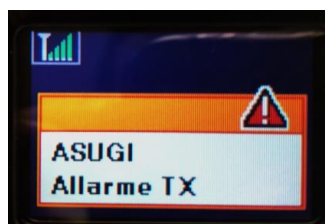


Image 4: emergency mode on portable radio display

1.3.1 Display icons

	Priorità 1 Indica il talkgroup con priorità 1.		Wi-Fi eccellente³ Il segnale Wi-Fi è eccellente.
	Priorità 2 Indica il talkgroup con priorità 2.		Wi-Fi buono³ Il segnale Wi-Fi è buono.
	RSSI (Received Signal Strength Indicator) Il numero di barre visualizzato rappresenta la potenza del segnale radio. Quattro barre indicano il segnale più potente. L'icona viene visualizzata solo durante la ricezione.		Wi-Fi medio³ Il segnale Wi-Fi è nella media
	Inibizione risp. L'inibizione risposta è attivata.		Wi-Fi scarso³ Il segnale Wi-Fi è scarso.
	Solo suoneria È attivata la modalità della suoneria.		Wi-Fi non disponibile³ Il segnale Wi-Fi è disponibile.
	Frequenza condivisa Indica che la radio si blocca al canale di controllo condiviso.		
	Sicuro La funzione Privacy è attiva.		
	Modalità audio disattivato La Modalità audio disattivato è attivata e l'altoparlante è disattivato.		Suoneria silenziosa È attivata la modalità della suoneria silenziosa.
	Notifica Nella lista delle notifiche sono inclusi gli eventi senza risposta.		Roaming tra i siti La funzione Roaming è abilitata.
	Scheda opzioni La scheda opzioni è abilitata (solo modelli con scheda opzioni).		Stato Indica un nuovo messaggio di stato.
	Scheda opzioni non funzionante La scheda opzioni è disabilitata.		Toni disattivati I toni sono disabilitati.
	Timer ritardo programmazione Over-the-Air Indica il tempo restante prima del riavvio automatico della radio.		Protezione disabilitata La funzione Privacy non è attiva.
	Livello di potenza La radio è attualmente impostata su un livello di potenza basso o alto.		Vibrazione È attivata la modalità Vibrazione.
			Vibrazione e suoneria Sono attivate la modalità Vibrazione e Suoneria.
			Emergenza La radio è in modalità di emergenza.
	Batteria Il numero di barre (0 - 4) visualizzato indica la carica residua della batteria. L'icona lampeggia quando il livello di carica della batteria è basso.		GNSS disponibile La funzione GNSS è attivata. L'icona rimane accesa quando è possibile effettuare il fix della posizione.
			GNSS non disponibile La funzione GNSS è attivata, ma la radio non riceve dati dal satellite.
			Volume di dati elevato La radio riceve un volume elevato di dati e il canale risulta occupato.

1.4 Vehicular radio Motorola DM 4601

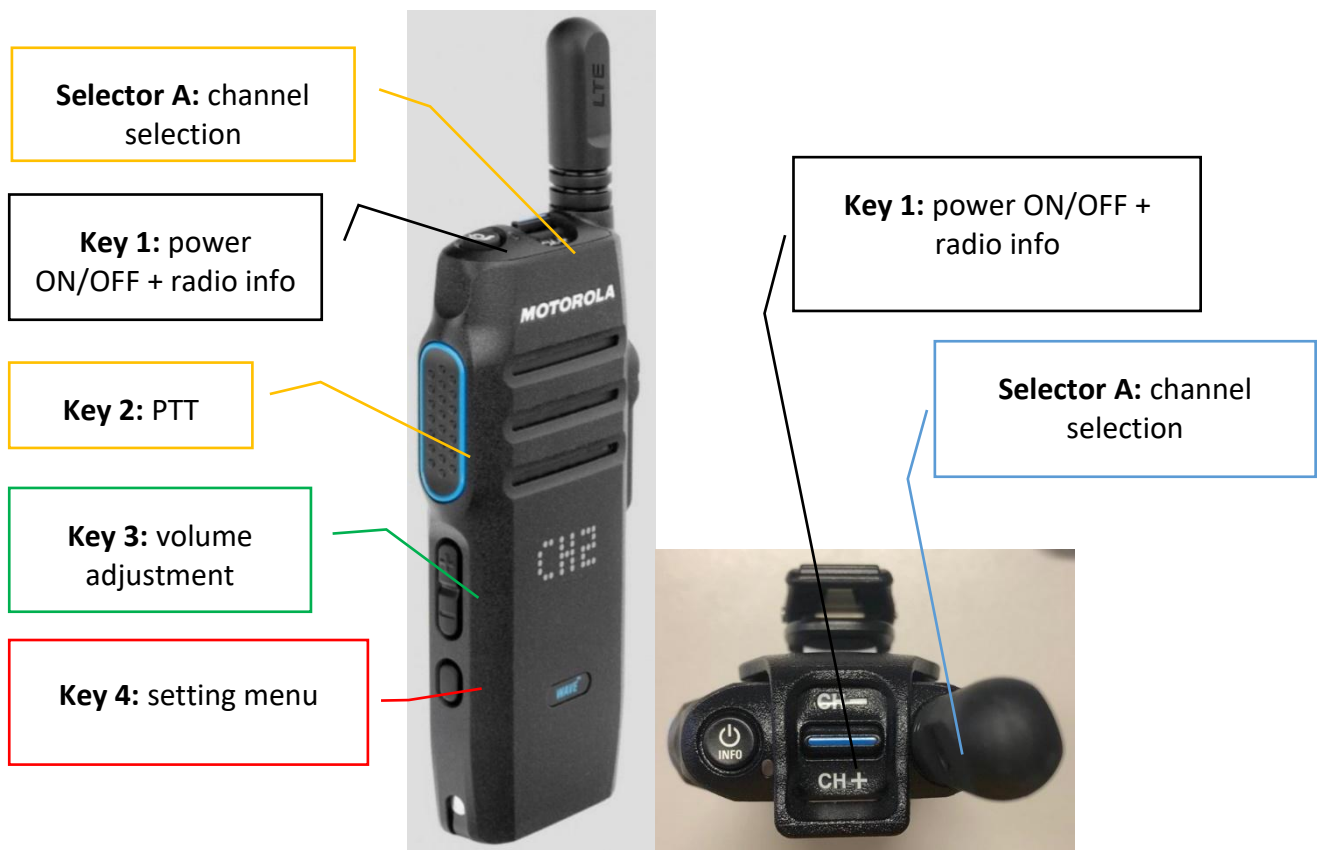


➤ **Selector A – volume adjustment**

Tasti:

- **Key 1 – power ON/OFF**
- **Key P1 – selective call to Dispatch center**
- **Key P2 - telephony ON/OFF** When turned on, the radio is set in telephony ON modality. By clicking key 1 and selecting telephony OFF only selective calls are allowed
- **Key P3 – night mode** hold key for 3 seconds)
- **Key P4 – radio info** hold key for 3 seconds)

1.5 LTE portable radio Motorola TLK 100



Selectors

- **Selector A - channel selection**

Keys

- **Key 1: power ON/OFF + radio info**
- 1° click □ battery status
- 2° click □ signal status
- 3° click □ radio info
- **Key 2 - PTT**
- **Key 3 - volume adjustment**
- **Key 4 - setting menu (do not use)**

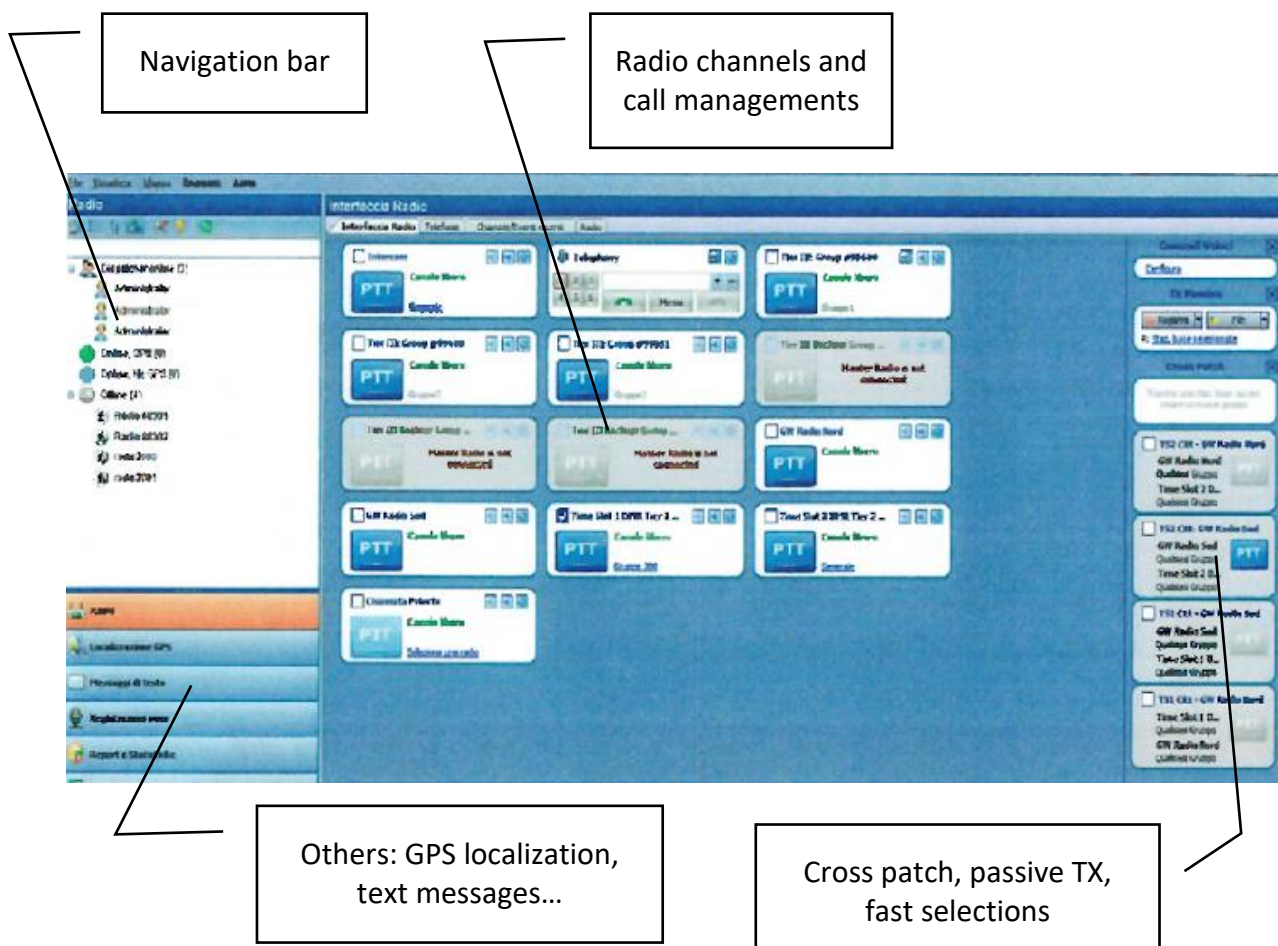
1.6 TRBOnet Radio Dispatcher

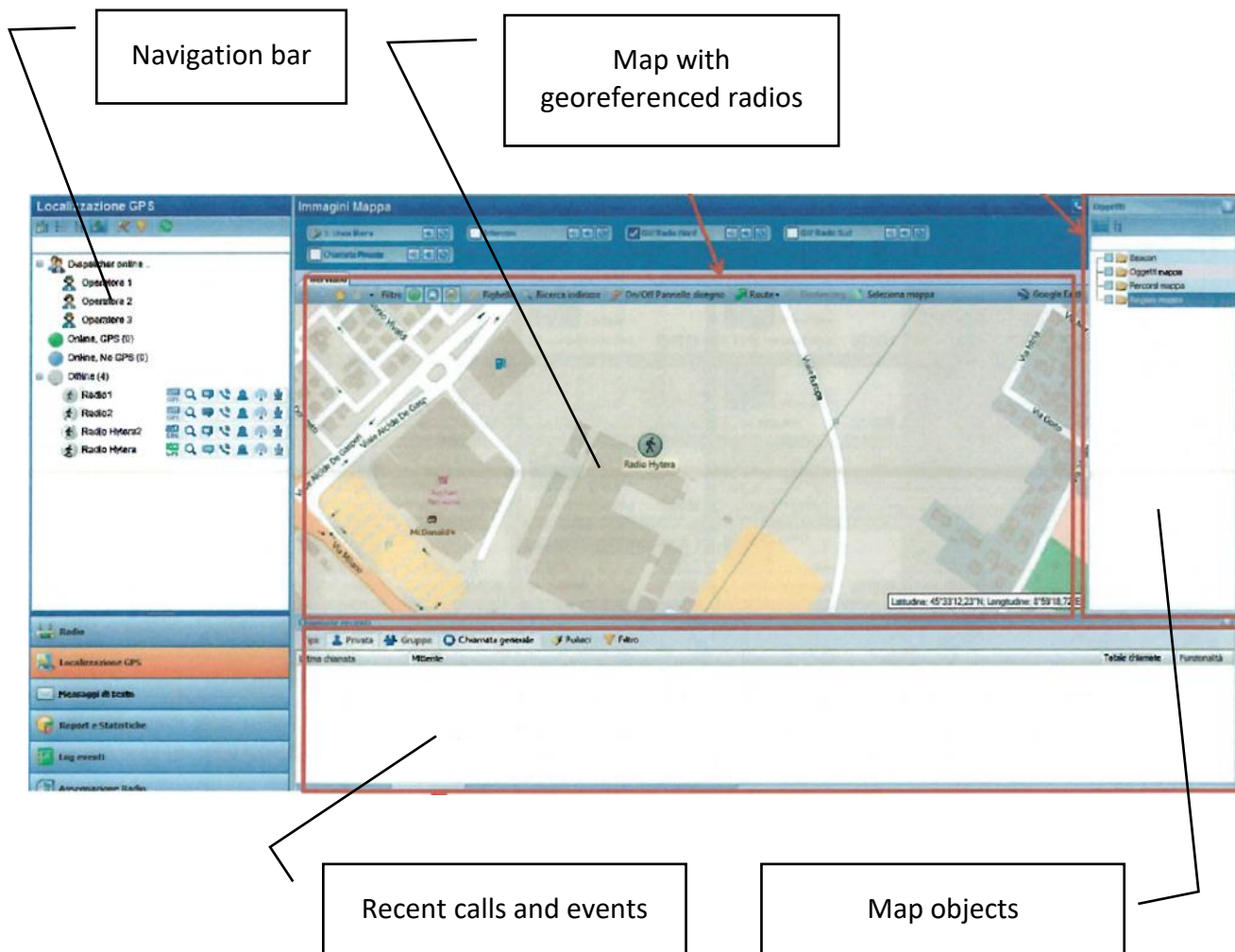
The Radio Dispatcher ("TRBOnet" Dispatch Console) is a software for the management of radio channels that allows coordinating vehicles and operational teams on the ground.

Main functions:

- In telephony communications from and to the dispatch center,
- Sending/ receiving text messages
- Geolocalization of radios on map,
- alert receiving when emergency mode is activated,
- cross-patch between different radio channels.

1.6.1 User interface:

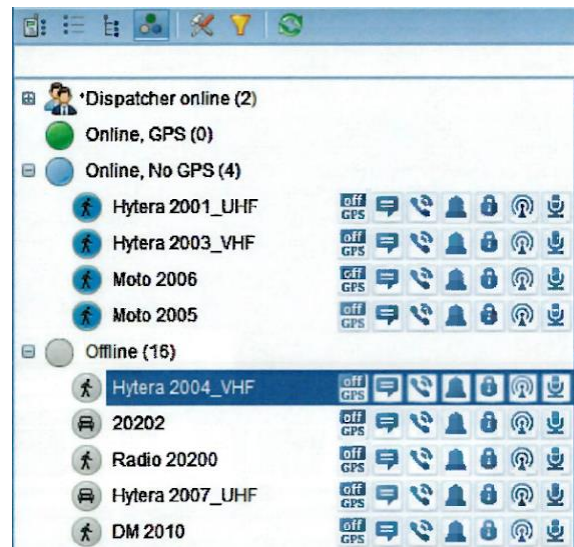




1.6.2 Navigational bar

In the navigational bar the radios are subdivided in three groups:

- **Radio Online, GPS:** radio turned on that has recently sent the GPS signal
- **Radio Online, NO GPS:** radio turned on that hasn't sent the GPS signal
- **Radio Offline:** radio configured in the system, but actually turned off



For every radio in the system, a group of keys is assigned:

- 1 Activation of automatic GPS localization
- 2 Send a text message
- 3 Private call
- 4 Selective call
- 5 Enabled/disabled radio
- 6 Network functioning
- 7 Ambiental listening



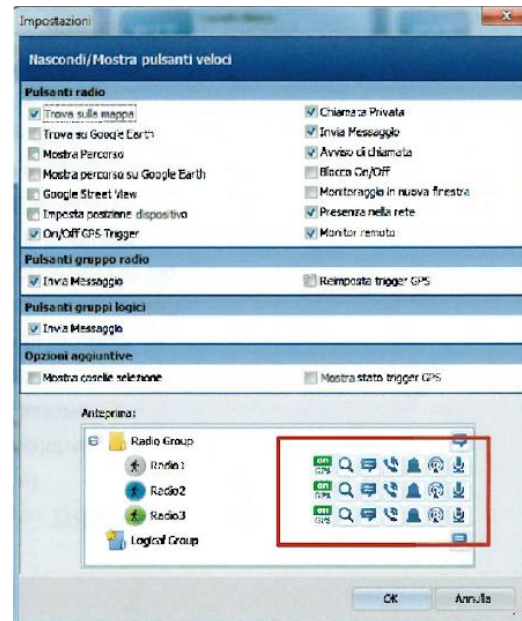
Click here to add or remove fast operational keys

The screenshot shows the 'Radio' software interface. On the left, a sidebar lists 'Dispatcher online...', 'Operatore 1', 'Operatore 2', 'Operatore 3', 'Online, GPS (0)', 'Online, No GPS (0)', and 'Offline (4)'. Under 'Offline (4)', there is a sub-menu with icons for 'Radio1', 'Radio2', 'Radio Hytera2', and 'Radio Hytera'. A red box highlights these icons. Two arrows originate from the text 'Click here to add or remove fast operational keys': one points to the red box, and the other points to a toolbar icon in the top-left corner of the main window.

The main window is titled 'Interfaccia Radio' and contains several control panels: 'Intercomunicazione SIP', 'Intercom', 'GW Radio Nord', 'GW Radio Sud', 'Chiamata Privata', and 'Chiamata Pubblica'. Each panel has a 'PTT' button and a 'Canale libero' indicator. At the bottom, there is a 'Chiamate/Eventi recenti' table.

Date	Stazione base	Mittente	Destinatario	Messaggio	Details
11/07/2015 09:39:48		Operatore 3	Radio Hytera	Dispatcher 'Operatore 3' ha richiesto la presenza...	
11/07/2015 09:15:00		Operatore 3	Radio Hytera	Dispatcher 'Operatore 3' ha richiesto la presenza...	
08/07/2015 15:36:35		Amministratore	Radio Hytera	Dispatcher 'Amministratore' ha richiesto la prese...	
08/07/2015 14:59:18		Amministratore	Radio Hytera	Annulla Chiamata di Emergenza	
08/07/2015 14:53:58		Amministratore	Radio Hytera	Dispatcher 'Amministratore' ha richiesto la prese...	
08/07/2015 14:53:09		Amministratore	Radio Hytera	Dispatcher 'Amministratore' ha richiesto la prese...	
08/07/2015 14:53:06		Amministratore	Radio Hytera	Dispatcher 'Amministratore' ha richiesto la prese...	
08/07/2015 14:51:44		Amministratore	Radio Hytera	Dispatcher 'Amministratore' ha richiesto la prese...	
08/07/2015 14:33:06		Amministratore	Radio Hytera	Dispatcher 'Amministratore' ha richiesto la prese...	
08/07/2015 14:28:13		Operatore 3	Radio Hytera	Annulla Chiamata di Emergenza	
08/07/2015 14:28:13		Operatore 3	Radio Hytera	Annulla Chiamata di Emergenza	
08/07/2015 14:15:45		Operatore 3	Radio Hytera	Annulla Chiamata di Emergenza	

Choose the options to be shown in the toolbar, In the preview, the new icons will be shown. Press OK.



1.6.3 Radio interface

It contains the list of radio/telephone channels that can be used for voice calls.

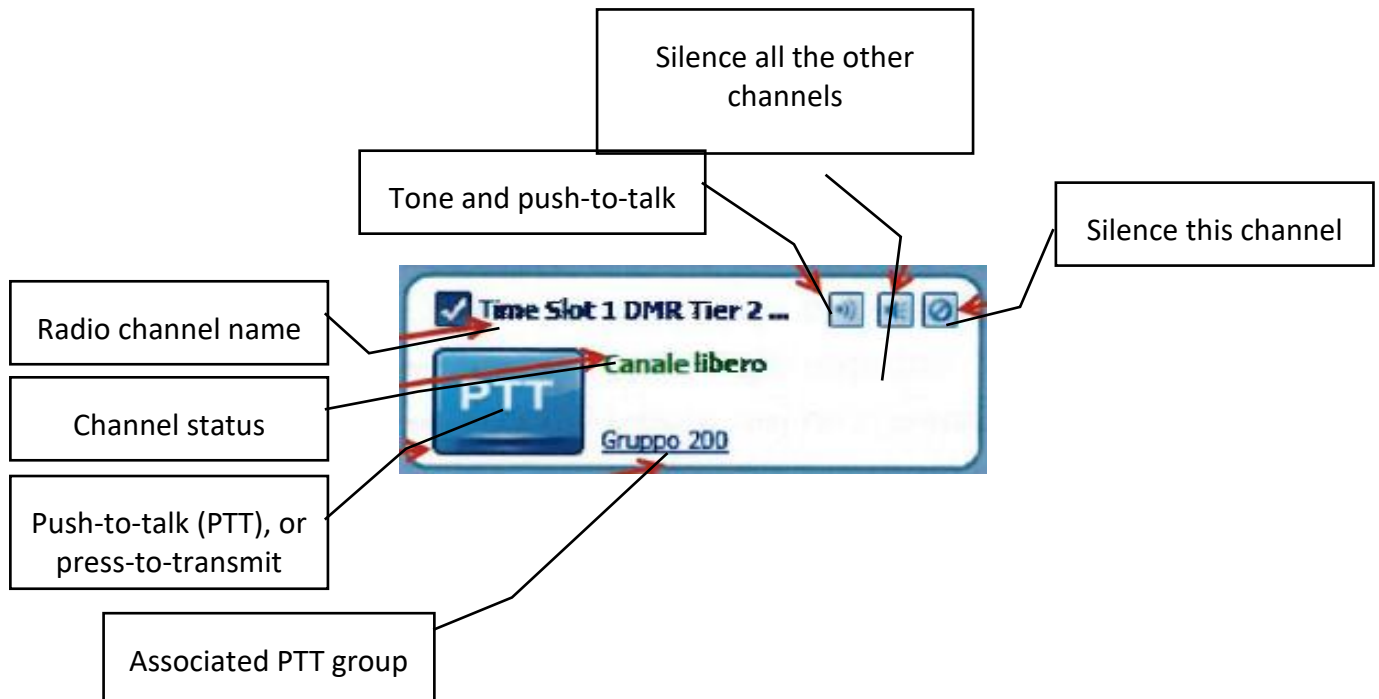
Channels can be organized in TAB for a logical organization on a geographical or operational basis.

For every channel it is possible to see its status (free/occupied). If occupied, it is possible to see data about the active call.



In case of few active radio channels, an extensive graphical representation is shown.





If a radio channel is not available (i.e. maintenance) the button turns grey and the following text message is shown:

Master Radio is not connected



1.6.3.1 Recent event/calls

In the section at the bottom of the screen of the radio interface the historical events are shown (calls, text messages etc.)

- Date/time of the event
- Radio channel of the event
- Sender and receiver

It is possible to filter the visualization of the events (using the automatic filter key) to select only event of interest.

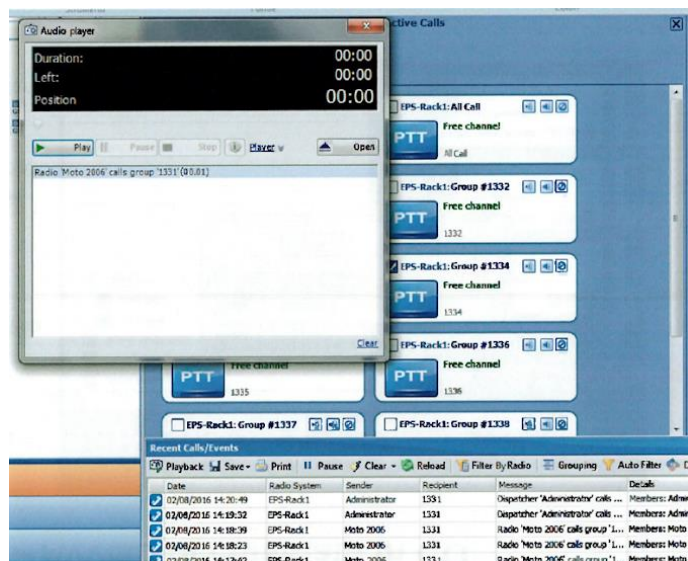
Chiamate/Eventi recenti

Riproduzione Salva Print Pausa Cancella Aggiorna Filtra per radio Raggruppa **Filtro automatico** Impostazioni di default Dettagli

Data	Stazione base	Mittente	Destinatario	Messaggio
03/08/2016 12:47:12	EPS-Rack1	Hytera 2002_UHF	All	ARRIVO OSPEDALE
03/08/2016 12:45:35	EPS-Rack1	Hytera 2003_VHF	Hytera 2001_UHF	Private Call: Subscriber 'Hytera 2003_VHF' calls the radio 'Hytera 2001_UHF' (01.32)
03/08/2016 12:45:32	EPS-Rack1	Hytera 2001_UHF	Hytera 2003_VHF	Subscriber 'Hytera 2001_UHF' has sent call alert to 'Hytera 2003_VHF'
03/08/2016 12:45:18	EPS-Rack1	Administrator	1333	Dispatcher 'Administrator' calls group '1333' (00.07)
03/08/2016 12:44:54	EPS-Rack1	Hytera 2003_VHF	Hytera 2001_UHF	Private Call: Subscriber 'Hytera 2003_VHF' calls the radio 'Hytera 2001_UHF' (00.26)
03/08/2016 12:44:53	EPS-Rack1	Hytera 2001_UHF	Hytera 2003_VHF	Subscriber 'Hytera 2001_UHF' has sent call alert to 'Hytera 2003_VHF'
03/08/2016 12:44:07	EPS-Rack1	Hytera 2003_VHF	Hytera 2001_UHF	Private Call: Subscriber 'Hytera 2003_VHF' calls the radio 'Hytera 2001_UHF' (00.06)
03/08/2016 12:44:06	EPS-Rack1	Hytera 2001_UHF	Hytera 2003_VHF	Subscriber 'Hytera 2001_UHF' has sent call alert to 'Hytera 2003_VHF'

Record 1 of 101

In case that the recent event is a voice call, double click on the event line and the voice communication will be reproduced from the server

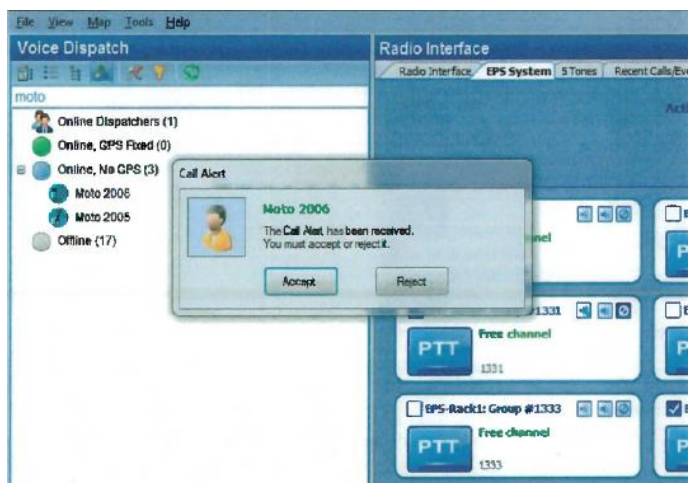


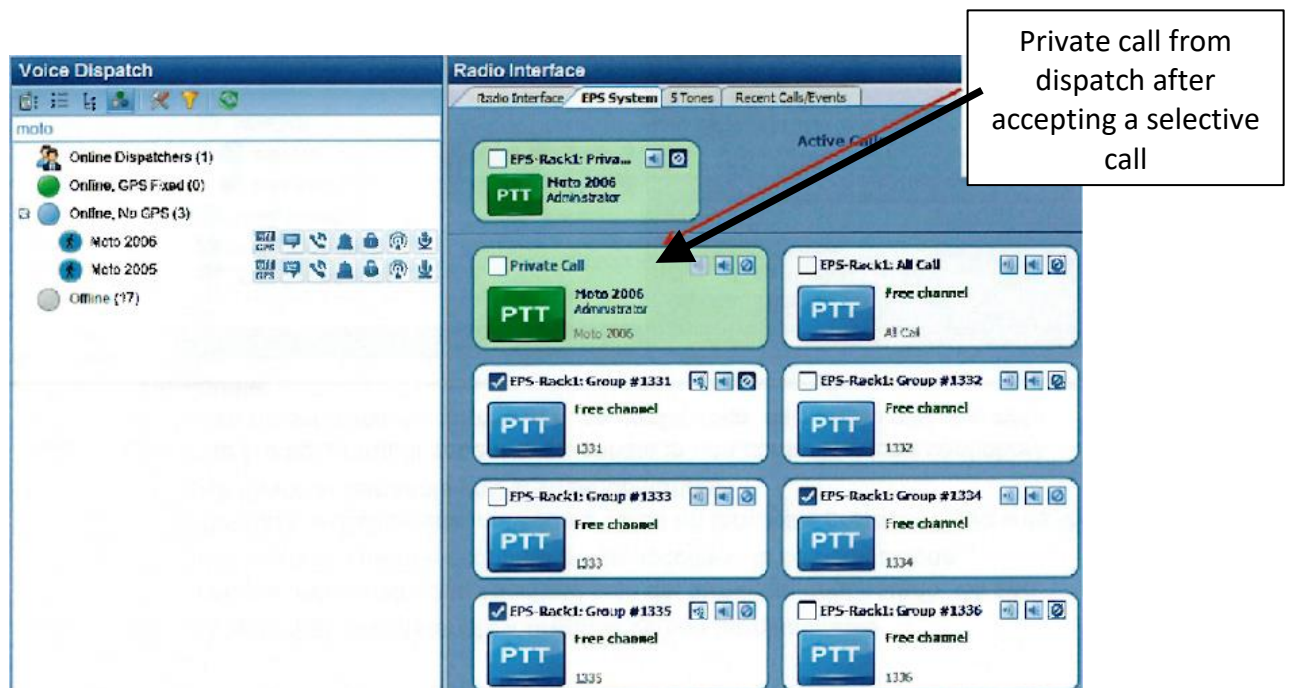
1.6.3.2 Incoming call notice to dispatch

Radio on the field can send a selective call to dispatch. When selective call is received, the dispatch software will emit an acoustic notification opening a window. The operator must chose to accept or reject the call.


If accepted, the dispatch software will perform a private call

If rejected, the operator must specify the reason and the radio calling will be notified by a message.



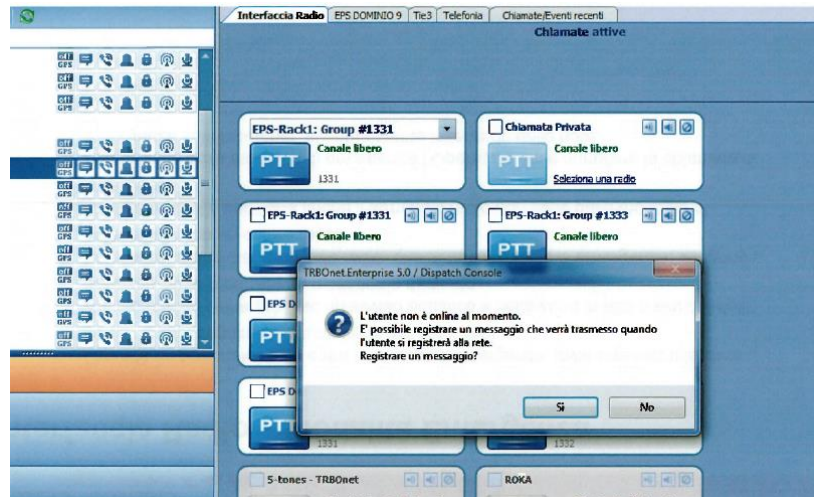


1.6.3.3 Individual call

Dispatch center can do individual call to radios. Individual calls are received only by the selected receiving radio. The other radios see the busy channel, but cannot hear the communication. To do a private call to a radio, push the key  on the side of the intended radio. The server will verify the availability of the radio intended to call, and if confirmed, it will start an individual call.



If the radio is not reachable, the dispatch software will ask if it is desired to register an audio that will be sent when the radio will be online.



1.6.3.4 Emergency mode

In case of an emergency, the radio operator can activate the emergency mode by pressing the intended button.

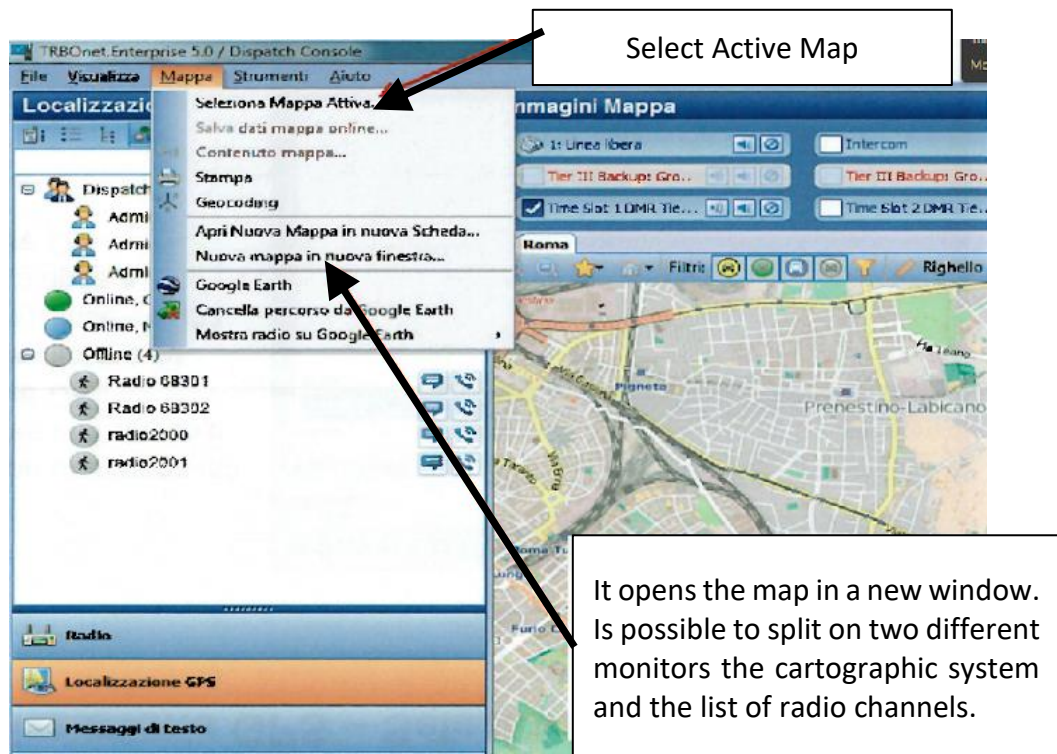
The dispatch software will emit an acoustic alarm with an alert window with a dedicated text message. The radio communication with the radio in emergency mode are highlighted in red. The modality will be activated until the radio operator will turn off the radio modality.

At the end of the emergency, the dispatch operator will close the call on the dispatch software with the possibility to fill in a form with text.




1.6.4 GPS localization

To view the position of the radios on the map, select the TAB *GPS localization*. A map with the position of the radios will be shown (based on the last known position).



1.6.4.1 Automatic localization and single localization


By clicking  is possible to enable/disable the automatic localization of every single radio.

Radio with the automatic localization is disabled. A GPS localization can be requested to the radio by clicking on request *position*.

Radio with the automatic localization is enabled. The radio will send the position periodically (for example every 5 minutes).

1.6.5 Text messages

1.6.5.1 Sending

It is possible to send text message to a specific radio from the radio section. By clicking on the icon , a window will appear where a free text message can be written. Click on “send button” to send a message to a selected radio.



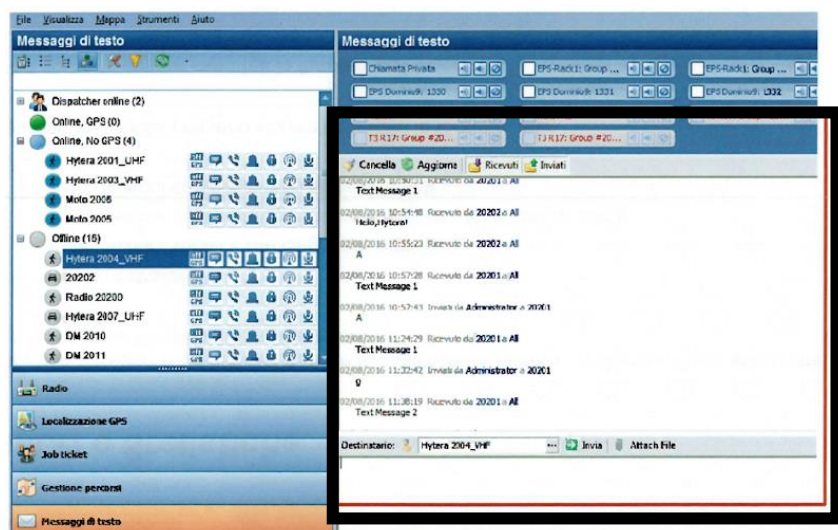
1.6.5.2 Receiving

In the radio interface section, it is possible to see the text messages in the *Calls/Recent* event section.



1.6.5.3 TAB

By selecting the *Text message* TAB, it is possible to see an overall view of sent/received text message by the radio channels. It is possible to send a text message from this TAB using the box below.



1.7 Maintenance of radios

PORTABLE RADIO STATIONS

- Make sure the device is always recharged.
- Before the use, make sure the antenna is securely fastened.
- If the station will not be used for a few days, the battery must be disconnected from the station.

CHARGING AND MAINTENANCE OF PORTABLE RADIO STATIONS

- It is necessary to make a regular monthly check-up of stations (checking battery charge, test call via channel 3),
- If the battery is found to be less than 10% full (the battery icon is visible on the switched on station), the station must be charged on a suitable charger.

BATTERY CHARGING PROCEDURE

1. A radio station can be charged in two ways:
 - a) by station being connected,
 - the station must be switched off, if it is already switched off we must check whether the on/off power symbol is in the switch-off position (far left)
 - When switched off, place a station on the charger.
 - b) A station not being connected:
 - If the battery is on the station, we must check whether the on / off button is in the off position (far left);
 - disconnect the battery from the station (press the button on the battery and pull the battery towards yourself);
 - place the battery on the charger.
2. Check the charger to see if the red light is on, indicating that the battery is being charged.
3. Having been charged, the green light on the battery turns on, which means that the battery is charged, so it can be disconnected from the charger.
4. The battery can be immediately put onto the station, if not used, we leave the battery disconnected from the station.

5. If we need to use the station and the battery is not connected, we must always first check whether the on/off button is in the off position (far left). Only then the battery can be connected.

STATIONARY RADIO STATIONS

To be checked:

- Is electricity connected?
- Does the power symbol show power off “I” (I-O character, off- on)?
- Is the microphone connected?

CHAPTER 2

DISTRIBUTION OF RADIO EQUIPMENT

2.1 Izola General Hospital

Users of radio stations do not set frequencies manually. All portable radio stations are located in a doctor's on-call room at Izola Emergency centre (IEC); one stationary radio station is located in the boardroom at IEC, while the other one is located in the hospital director's office.

- a) Izola emergency centre (IEC): stationary radio station
- b) Director of the hospital: stationary radio station
- c) Hospital incident command team¹: portable radio station
- d) Triage nurse: portable radio station
- e) Portable radio station coordinator namely, a doctor who manages the work of the emergency department during the alarm, and to whom all those who work at the Izola emergency centre are technically inferior
- f) Red level and yellow level zone (IEC): portable radio station
- g) Yellow level zone (IEC): portable radio station
- h) Radiology technician: Portable radio station
- i) Registered nurse working in the Intensive Care Unit and registered nurse working in the Internal Intensive Care Unit: portable radio station
- j) Laboratory technician: portable radio station
- k) Transfusion technician: portable radio station
- l) Security guard: portable radio station
- m) Hospital Pharmacy: portable radio station
- n) Central warehouse: portable radio station
- o) On-duty employee of the technical maintenance service: portable radio station
- p) Department of Paediatrics: portable radio station
- q) Department of Surgery: portable radio station

¹ Hospital incident command team (HICT) is a group of employees in Izola GH, which commands/manages the hospital in the event of a mass-casualty incident and above all manages the alarm, communicates externally, determines other functions of employees according to this plan, takes care of hospital safety and receives internal as well as external information.

- r) Department of Internal Medicine: portable radio station

2.1.1 Use of channels

- Channel 1: NEX-AID rip
- Channel 2: NEX-AID dir 1
- Channel 3: NEX-AID dir 2

Channel 1 is used when communicating with ASUGI Unit "*Centrale operativa in Farneto*" – **Note¹**: if the reception at the portable station is not sufficient, the reception from channel 1 is also available on channel 2. In that case, a portable station must be connected to channel 2 and the stationary station must be set on channel 1, in which case the stationary station functions as the repeater for the portable station.

Channel 2 is used for direct communication among all stations in Izola General Hospital, the channel can be used as the repeater, see Note¹ in Channel 1 description above.

Channel 3 is only used for direct communication among all the stations in Izola General Hospital; connection via this channel with ASUGI unit "*Centrale operativa in Farneto*" is not possible.

2.1.2 Use of portable/stationary radio stations

- First, we choose a suitable channel (channels being explained in section 2.1.1).
- By pressing the red button, the alarm is activated in Izola General Hospital and ASUGI.
- The user chooses between receiving and transmitting by himself by pressing the PTT button (i.e. *Press to Talk*). If the button PTT is released, the station is receiving, if the button PTT is pushed, the station is transmitting.

Attention has to be paid to:

- The radio station must not operate without an antenna being connected, as this poses a risk for damaging the station.
- When transmitting, a radio station cannot receive signals and vice versa.

2.1.2 Izola Hospital Radio List

SERVICE	TYPE OF RADIO	RADIO NUMBER	CALL SIGN
Izola emergency centre (IEC)	STATIONARY	IZOLA 00 00340700	INDIA 01
Director of the hospital	STATIONARY	IZOLA 17 00340717	INDIA 02
Hospital incident command team (HICT)	PORTABLE	IZOLA 01 00340701	INDIA 03
Triage nurse	PORTABLE	IZOLA 02 00340702	INDIA 04
Portable radio station coordinator	PORTABLE	IZOLA 03 00340703	INDIA 05
Red level and yellow level zone (IEC):	PORTABLE	IZOLA 04 00340704	INDIA 06
Yellow level zone (IEC):	PORTABLE	IZOLA 05 00340705	INDIA 07
Radiology technician	PORTABLE	IZOLA 06 00340706	INDIA 08
ICU RN – IICU RN	PORTABLE	IZOLA 07 00340707	INDIA 09
Laboratory technician	PORTABLE	IZOLA 08 00340708	INDIA 10
Transfusion technician	PORTABLE	IZOLA 09 00340709	INDIA 11
Security guard	PORTABLE	IZOLA 10 00340710	INDIA 12
Hospital Pharmacy	PORTABLE	IZOLA 11	INDIA 13

		00340711	
Central warehouse	PORTABLE	IZOLA 12 00340712	INDIA 14
technical maintenance service	PORTABLE	IZOLA 13 00340713	INDIA 15
Department of Paediatrics	PORTABLE	IZOLA 14 00340714	INDIA 16
Department of Surgery	PORTABLE	IZOLA 15 00340715	INDIA 17
Department of Internal Medicine	PORTABLE	IZOLA 16 00340716	INDIA 18

2.2 ASUGI

Vehicular radio Motorola DM4601e

- 2 installed at Farneto Dispatch center
- 2 installed in coordination vehicles
- 3 installed in ambulances

Portable radio Motorola DP 4801e

- 29 portable radios are distributed to ASUGI BLS ambulance affiliated partners, 10 portable radios are located in Farneto Dispatch Center ready to use in case of MCI incident

Mobile Radio Station Motorola DM4601e

- 1 mobile radio station to be used in Advanced Medical Post in case of MCI
- 1 mobile radio station in reserve in Farneto Dispatch center that will probably be installed at Cattinara Hospital

WAVE portable radio Motorola TLK 100

- 4 portable radio TLK100 (WAVE system) in Farneto Dispatch Center ready to use in case of MCI incident.

2.2.1 ASUGI Radio List

MODEL OF RADIO	TYPE OF RADIO	RADIO NUMBER	CALL SIGN
Motorola DM4601			
T.01 PMA	MOBILE STATION	340101	TANGO 01
T.03 Coordination	VEHICULAR	340103	TANGO 03
T.04 Coordination	VEHICULAR	340104	TANGO 04
T.12 Ambulance	VEHICULAR	340112	TANGO 12
T.14 Ambulance	VEHICULAR	340114	TANGO 14
T.32 Ambulance	VEHICULAR	340132	TANGO 32
Motorola DP4801			
T.10	PORTABLE	340010	TANGO 10
T.11	PORTABLE	340011	TANGO 11
T.12	PORTABLE	340012	TANGO 12
T.13	PORTABLE	340013	TANGO 13
T.14	PORTABLE	340014	TANGO 14
T.15	PORTABLE	340015	TANGO 15
T.16	PORTABLE	340016	TANGO 16
T.17	PORTABLE	340017	TANGO 17
T.18	PORTABLE	340018	TANGO 18
T.19	PORTABLE	340019	TANGO 19
T.20	PORTABLE	340020	TANGO 20
T.21	PORTABLE	340021	TANGO 21
T.22	PORTABLE	340022	TANGO 22
T.23	PORTABLE	340023	TANGO 23

T.24	PORTABLE	340024	TANGO 24
T.25	PORTABLE	340025	TANGO 25
T.26	PORTABLE	340026	TANGO 26
T.27	PORTABLE	340027	TANGO 27
T.28	PORTABLE	340028	TANGO 28
T.29	PORTABLE	340029	TANGO 29
T.30	PORTABLE	340030	TANGO 30
T.31	PORTABLE	340031	TANGO 31
T.32	PORTABLE	340032	TANGO 32
T.33	PORTABLE	340033	TANGO 33
T.34	PORTABLE	340034	TANGO 34
T.35	PORTABLE	340035	TANGO 35
T.36	PORTABLE	340036	TANGO 36
T.37	PORTABLE	340037	TANGO 37
T.38	PORTABLE	340038	TANGO 38
Motorola TLK 100			
T.91	PORTABLE LTE	9999	TANGO 91
T.92	PORTABLE LTE	9999	TANGO 92
T.93	PORTABLE LTE	9999	TANGO 93
T.94	PORTABLE LTE	9999	TANGO 94
CHANNEL	1	2	3
ZONA ASUGI	ASUGI rip	ASUGI dir 1	ASUGI dir 2
ZONE NEX-AID	NEX-AID rip	NEX-AID dir 1	NEX-AID dir 2

CHAPTER 3

RADIO COMMUNICATIONS

3.1 General considerations

When using radio stations, attention has to be paid to:

- during transmitting signal, a radio station cannot receive signal and vice versa;
- the operator chooses between receiving and transmitting by pressing the button PTT (*»Press to Talk«*):
 - when the PTT (*»Press to Talk«*) button is lowered, the radio is receiving
 - when it is lowered, the radio station is transmitting;
- a radio must not operate without connected antenna, as there is a risk of damage to the radio.

The quality of reception and transmission is influenced by:

- the signal reception;
- the way the radios are programmed;
- when transmitting with a portable radio, always hold it vertically at a distance of 5-8 cm from the eyes with the antenna preferably being above head height (electromagnetic radiation has a negative effect on our body);
- the microphone should be at a distance 5-8 cm from your mouth and, if possible, protected from ambient noise. The distance of the microphone from the mouth should vary as little as possible;
- accuracy, brevity, clarity, security are the principles for effective, concise radio communication between operators meaning, we should be precise, the message should be formulated in brief sentences, each word or phrase should be spoken clearly, slowly with a moderate tone, excessive and informal calls should be avoided, maintain a sense of confidentiality;
- before transmitting, it is necessary to decide what to say;
- It is necessary to check if the right channel is set and if it is free. We should never
- Interfere with ongoing communications;

- we start speaking a second or two after the PTT key is pressed and is released only a second or two after the message ends;
- in poor hearing conditions, the International Radiotelephony Spelling Alphabet is used (Image 5).

Phonetic Alphabet	
A - alpha	N - november
B - bravo	O - oscar
C - charlie	P - papa
D - delta	Q - quebec
E - echo	R - romeo
F - foxtrot	S - sierra
G - golf	T - tango
H - hotel	U - uniform
I - india	V - victor
J - juliet	W - whiskey
K - kilo	X - x-ray
L - lima	Y - yankee
M - mike	Z - zulu

Image 5: International Radiotelephony Spelling Alphabet

3.2 Guidelines for communication

The conversation should include the message:

- who is it for
- who the messenger is
- the message itself
- the end of transmission (COPY, OVER)

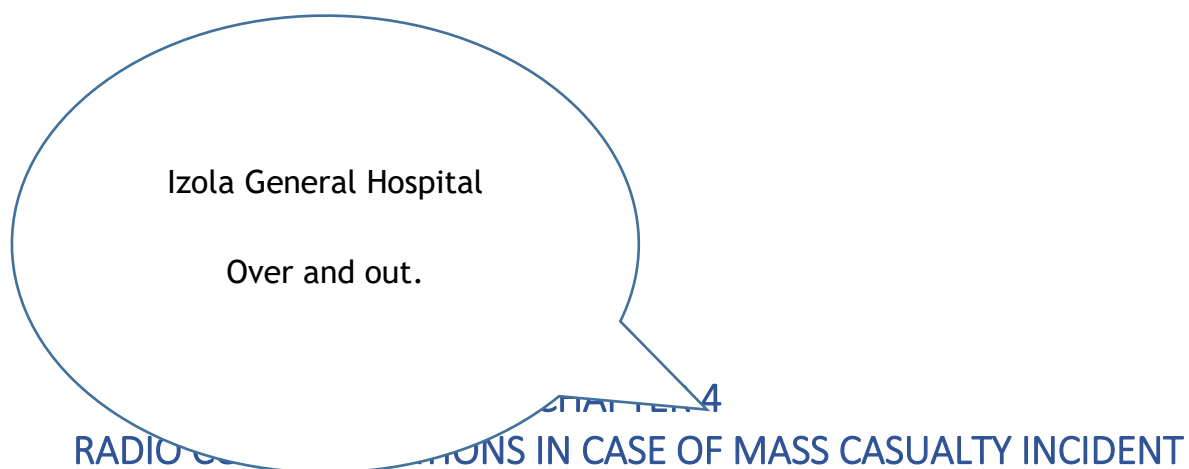
An example of a conversation

Centrale operativa ASUGI,
ASUGI, ASUGI This is Izola
General Hospital, Izola
General Hospital, Izola
General Hospital

This is Centrale operativa
ASUGI
over.

Centrale operativa ASUGI this
is Izola General Hospital
declaring
Mass-casualty incident

Izola General Hospital this is
Centrale operativa ASUGI
message received
over and out



4.1 Notification

Izola General Hospital informs Farneto Dispatch Center of Azienda Sanitaria Universitaria Giuliano Isontina (ASUGI) of a mass-casualty incident occurring in the Obalno-kraška region on the Slovenian side of the border.

In principle, the communication between the two institutions is established in English.

In case of an emergency, resulting in telephone network outage, the SBI has pre-agreed the access to radio frequencies 24 hours a day, 7 days a week, 365/366 days a year, intended to receive a mass-casualty incident notification/alarm using NEX AID RADIO CHANNEL AND ZONE.

Another option for Izola General Hospital reaching ASUGI partner institution when a mass-casualty event occurs is dialling the following telephone number:

+39 040 399 5094

This is the extension number of the “ASUGI Centrale Operativa unit”, which is used only for internal affairs and is the emergency number in case of failure of regular telephone lines. The number is available 24 hours a day, 7 days a week and 356/366 days a year.

