



prevention, preparedness, response to natural and man-made disasters

الوقاية من الكوارث الطبيعية والناتجة عن النشاط البشري والاستعداد لها

prévention, préparation, réponse aux désastres naturels et humains

pprd south programme

RADIO COMUNICATION during EMERGENCIES

The most immediate consequence to the calamitous events of any severity is the sudden collapse of traditional telecommunications systems / institutional (telephone, fax, etc..).

This severely hampers the most delicate phase of the emergency, ie the determination of the type of incident, its severity, its environment and the immediate coordination of relief



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Phone systems (wired and cellular), have the ability to convey a certain number, certainly very high, contemporary communications.



Allieve telefoniste SIP, 1959



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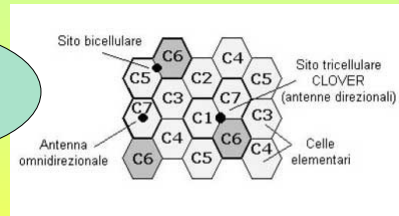
Limit is reached, the network collapses and is not able to provide service to more users.



The telephone lines are interrupted, and the most advanced communication systems and technology (GSM telephony) are also the most vulnerable.



the central tower
collapsed because
of a hurricane

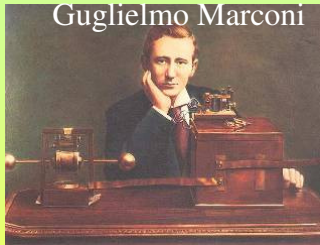


All classical communication networks require central technology infrastructure for various reasons may crash keeping thousands of users to communicate



Often even in the presence of "signal", no "channels" available: the phenomenon that occurs, for example, at events, concerts, or simply natural disasters in some resorts "overcrowded" only short periods of the year





Guglielmo Marconi

Here then emerge the importance of using a communication tool was created more than 100 years ago!

Why ?

- independence from central systems that can go into failure
- radio terminals can be easily replaced
- low cost of deployment and activation
- line is always open to the other party
- possibility of circular communication to multiple users (broadcasting)
- information sharing (all users have access to a radio network to the same information)



Each institution must have involved the emergence of a trunked radio system suitable for the task to be performed.



"Titanic's Marconi room"



The radio room of the Civil Protection of Friuli Venezia Giulia Region

But often it is not enough!!!!





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civil defense emergencies, big and small they are, and always
require a large number of "connections" to manage the chain
of command of rescue operations ...
Also the different agencies often have incompatible radio
systems or intercoms





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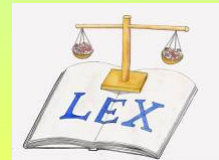


Here it becomes essential to use wireless networks set up by
associations of volunteer experts on radio, both to increase the
number of "connections" but above all to make
interconnecting the various relief agencies to each other, to
share information as provisions of the civil Protection



LA LEGGE IN ITALIA

In Italy the use of radio equipment and its frequency is regulated by Decree. No. 259, 08/03/01, which repealed several previous laws and decrees on the subject, and which came into force on 15-09 -03.



In summary, we have two great families of users of radio equipment that can make a valuable contribution to the Italian civil protection system:



LA LEGGE IN ITALIA

The amateur radio and CB (citizen band) that use frequencies reserved for recreational activities / Experimental



In case of emergency they can work with rescue operations

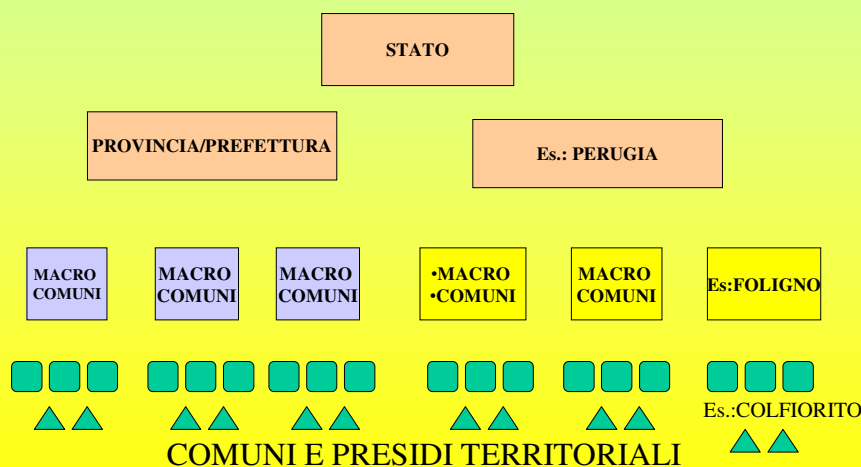


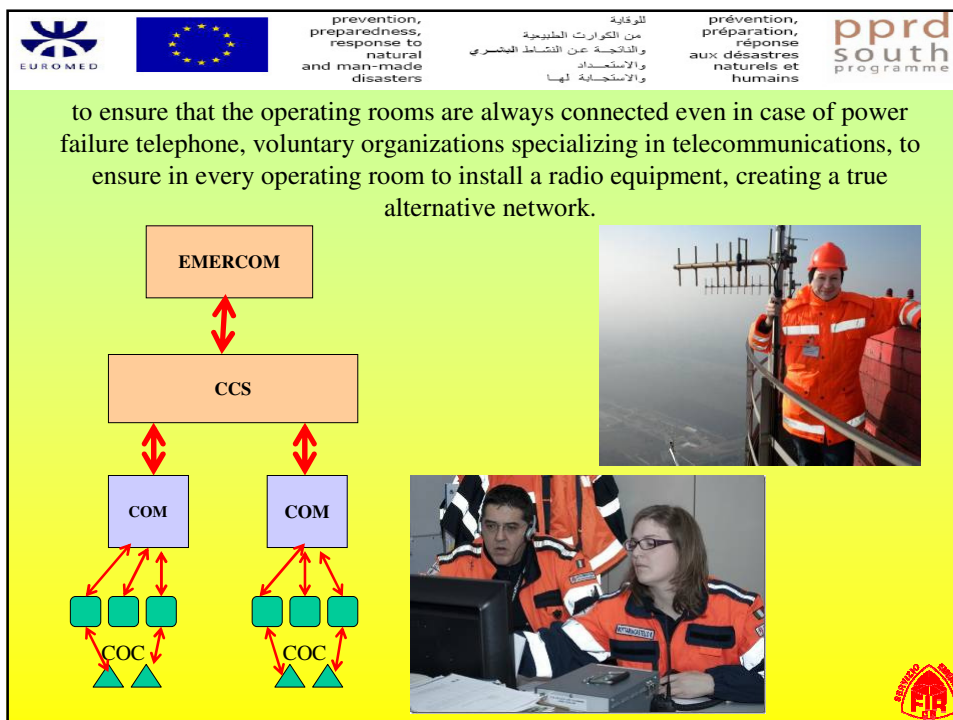
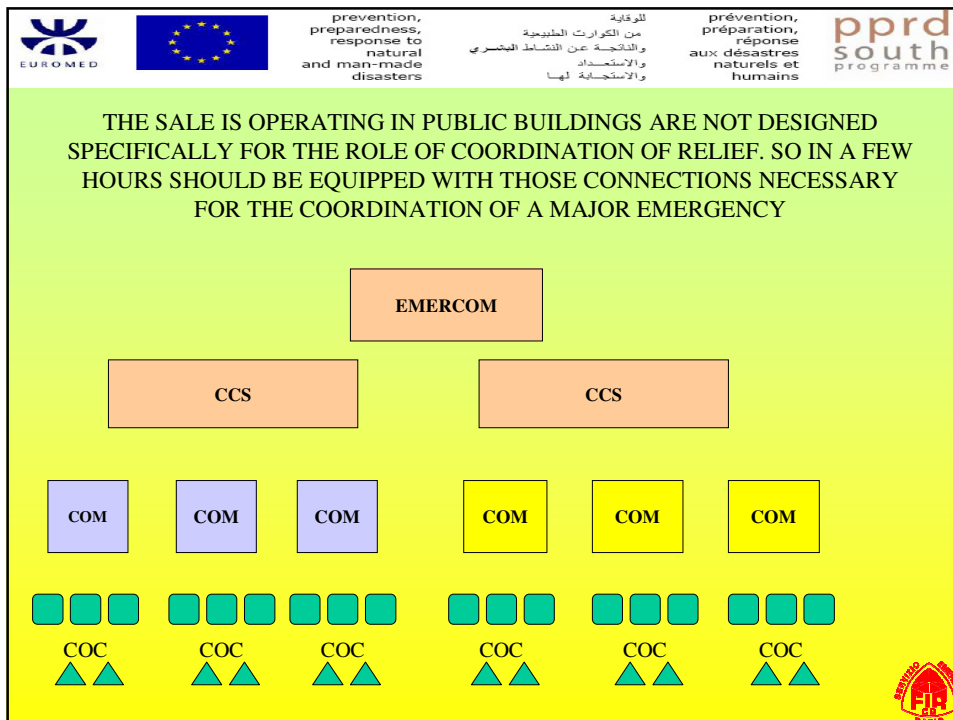
LA LEGGE IN ITALIA

- Voluntary associations specialized in emergency radio communications, which use radio frequencies normally assigned to businesses, but thanks to a special decree, frequenze can use these free of charge for the activities of civil protection

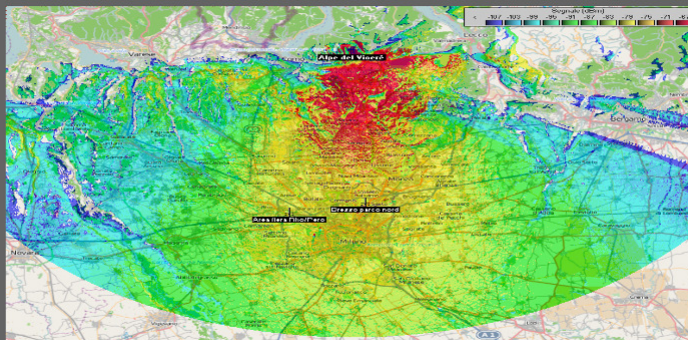


In the case of major natural disasters or technological disasters, the Italian civil protection system provides the institution with a clear hierarchy of decision-making according to the territory affected.

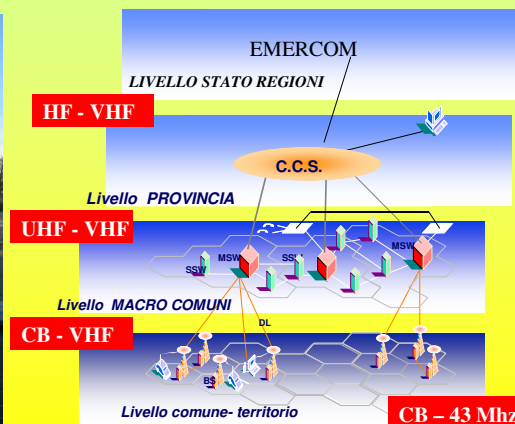




Becomes essential to planning the event with the previous audit, territory by territory, the feasibility of alternative radio links. Today, modern commercial software can do computer simulations quite true with the release of maps which are bounded on the various areas of radio signal coverage and intensity.



Careful planning also leads to the definition in advance of the frequency bands to be used according to the various types of radio links






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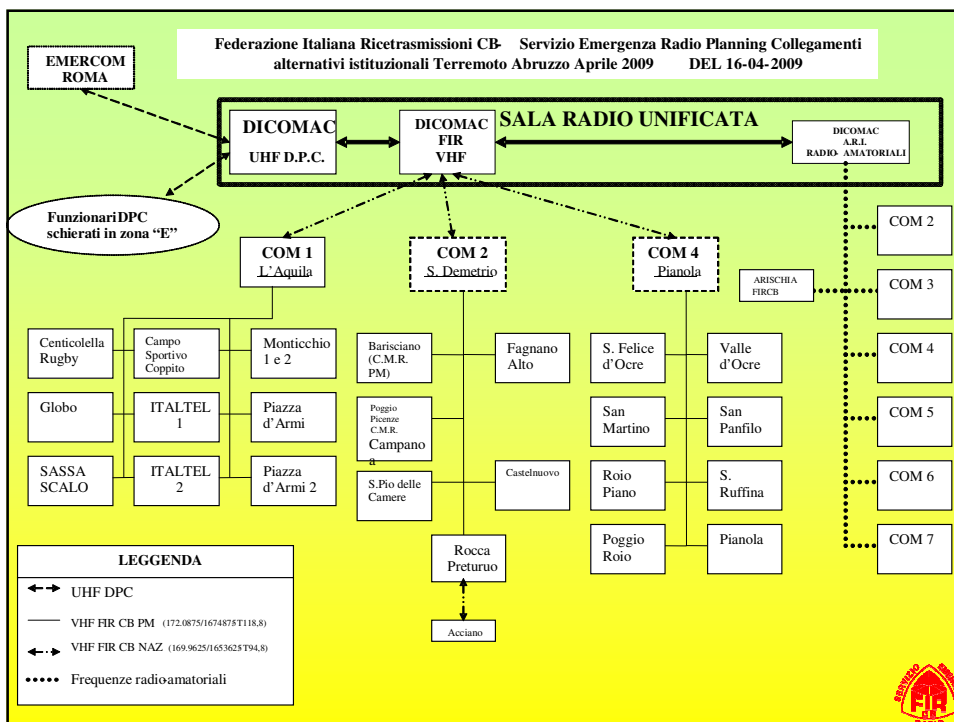




The National Civil Protection Department has assigned a set of frequencies in VHF and UHF, but are used in confidence for the coordination of officials of the department and only in some cases are given to the National Associations under management specializing in TLC

That's putting together the institutional linkages and alternative, forms the "radio room attendants"









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They are more than 2,000 volunteers specialized in radio communications for emergency standby for deployment to the areas affected by natural disasters, in addition to daily training, collaborate with civil protection authorities for the necessary emergency planning



thanks for your attention

Losi Patrizio

Presidente dell'associazione
Federazione Italiana Ricetrasmisssioni
Servizio Emergenza Radio
losi.patrizio@fircb.org

