
Emergency Communications



Saving lives



Central African Workshop on the Use of
Telecommunications/ICT for Disaster Management
Sao Tome & Principe (21-25 September 2009)

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Contents

- ITU emergency telecommunication unit and what it does
- Touch on some of the equipment that we have and how it works
- How emergency deployment is all possible
- Conclusion

When disaster strikes...

...telecommunications save lives

The international Telecommunication Union (ITU) and its partners deploy satellite terminals and other emergency telecommunication equipment to affected countries within the first 24 to 48 hours of a disaster to help restore vital communication links. The equipment is critical in:

- Coordinating rescue and relief operations;
- Setting up telemedicine links between hospitals and medics in the field;
- Providing call centres where disaster victims can contact their loved ones.

ITU pays for the delivery of equipment and for its use. The calls are free. ITU also offers training.



Emergency response

Communication requirements

- Voice and data capabilities
- Easy terminal setup and wireless mobility
- GPS navigation and location
- Remote sensing

Some of ITU's equipment that is used for emergency response:

- Inmarsat Broadband Global Area Network - BGAN (Voice & Data)
- Iridium satellite telephone (Voice)
- Thuraya satellite telephone (voice)



Inmarsat BGAN service

- BGAN service is transforming emergency and disaster response operations with a compelling combination: voice and high speed data, completely independent of terrestrial networks, using small, highly portable terminals.
- BGAN provides communications operability from the first moment of a disaster response, even when terrestrial networks are disrupted



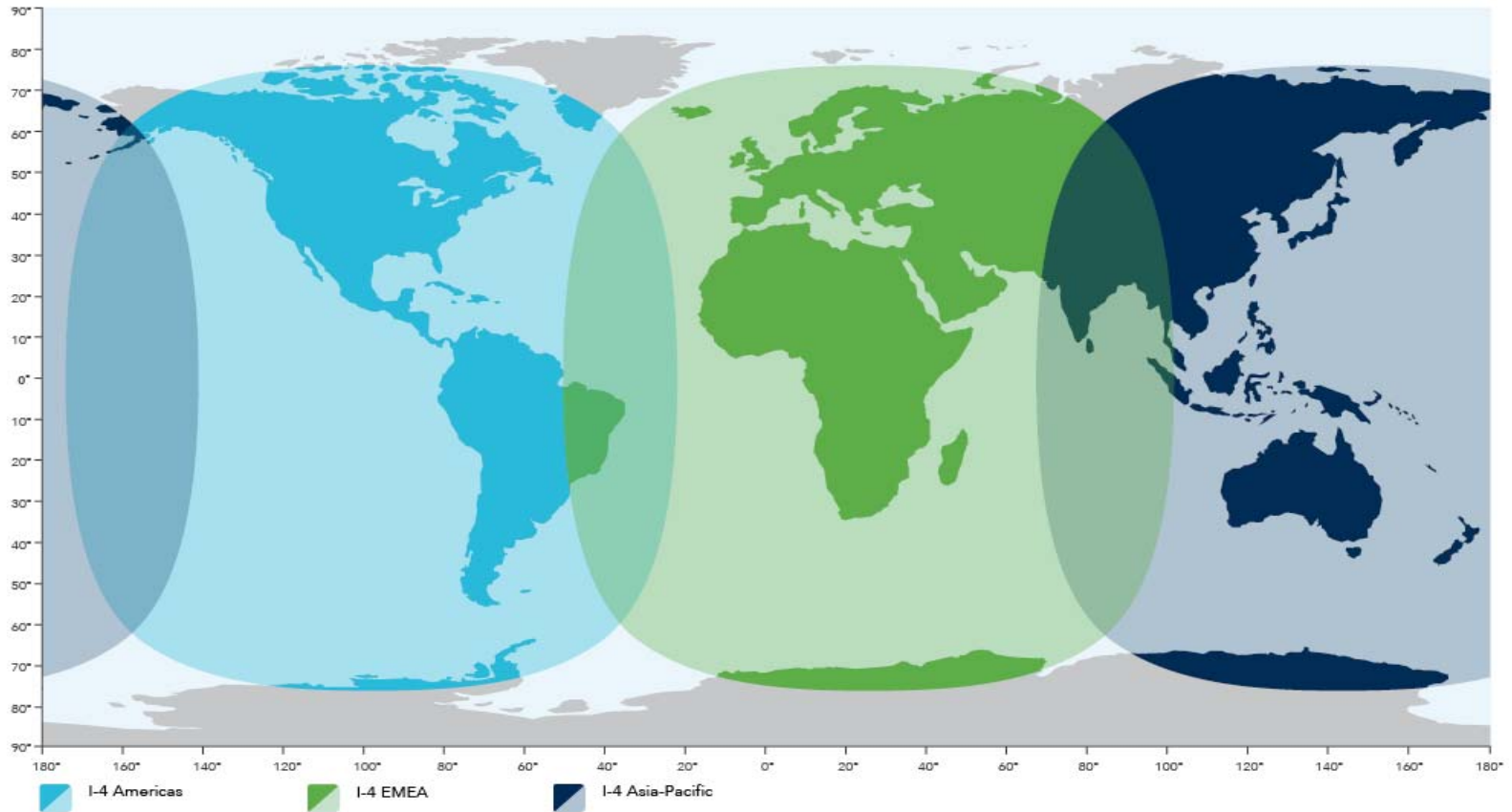
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Key features

- Simultaneous voice and broadband data
- Quickly re-establish essential communications at a disaster zone
- Reliability - continue rescue efforts unimpeded by disruption to terrestrial or cell phone infrastructure
- High throughput speed of up to 492 kbps over a shared channel
- Easy installation and network integration

BGAN coverage map



- Available globally, except in polar regions

Iridium satellite phone

- Small, light and water resistant, this handheld satellite phone works anywhere in the world making it ideal for deploying even in the most remotest areas of the world



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Key features

- Water, shock and dust resistant for rugged environments
- Data capable (can be used to send and receive data with optional adapter)
- Global SMS
- Simple GSM style dialling
- Up to 30 hours of standby time/ 3.2 hours of talk time



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Iridium coverage map



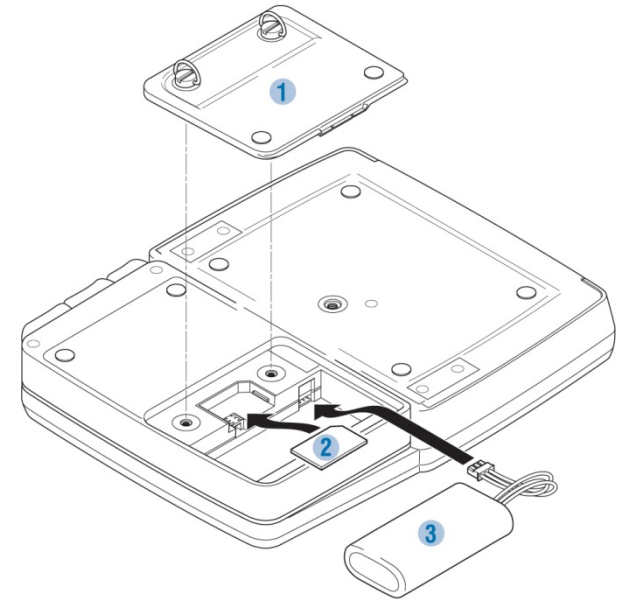
Iridium is the only satellite communications company to cover every inch of the earth's surface



Steps on how to use the BGAN terminal

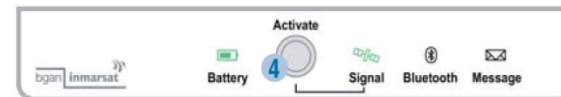
Installing SIM card and battery

1. Remove the battery compartment cover by loosening the two fastening screws.
2. The SIM card must be installed prior to installing the battery. SIM card to be slid all the way into the slot.
3. Install the battery and charge the terminal. Normal charge time is 3 hrs.
- 4 Remount the battery compartment cover.



Setting up

1. Power on terminal by pressing activate for 1.5 seconds
All indicators light **green** for approx. 15 seconds



The terminal is automatically set in Antenna Pointing mode, i.e. it attempts to find the Inmarsat BGAN satellite and/or to obtain a GPS fix which is needed to log onto the BGAN network.

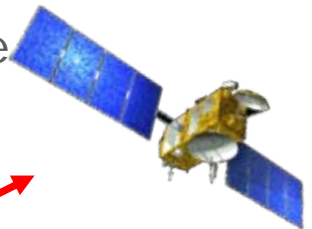
Free line of sight to the satellite



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Steps on how to use the BGAN terminal (cont.)

2. To obtaining a GPS FIX place the Terminal outdoors
 - Wait until the signal indicator lights **GREEN** and the GPS Fix is obtained, (wait till 5 Minutes for first time Usage)
3. To find the Best Satellite Signal ALIGN the Antenna
4. When the SIGNAL is **Green**, Press ACTIVATE to get in to the INMARSAT BGAN Network
5. When the signal indicator is Steadily **GREEN** you have **SUCCESSFULLY LOGGED ON** and can Start making
 - Voice Calls
 - Send SMS
 - Set a Connection with the PC
6. If The signal indicator is **RED** your log on attempt has failed. Start the full process again.



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Steps on how to Use the Iridium satellite phone

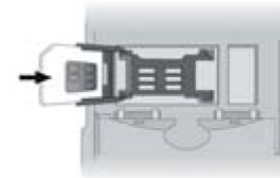
- 1 Rotate and extend the antenna



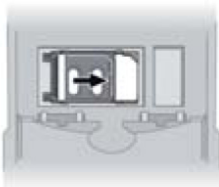
- 2 Remove battery door



- 3 Insert the SIM card



- 4 Push down and slide the SIM card tray to the right



- 5 Attach battery door cover



- 6 Install the battery by matching arrows on phone and battery



- 7 Attach charging device













Iridium satellite phone layout & basic operation



- Turn the phone's power on/off: Press and hold the power button
 - To place a call: You need a clear view of the sky
 - To answer a call (with antenna rotated and extended): Phone rings and/or vibrates. After **Call** followed by **Answer?** Is in display, press **ok**.
- If the antenna is stowed, the phone chirps and you will have to rotate and extend the antenna before answering the call.
- To end the call press **ok**.

Helpful Hints

- Need clear view of sky, outdoors, away from buildings and tall structures. Rotate and fully extend antenna into a vertical position.
- Wait until registration is complete (you will see  Registered and the  and  indicators). If no registration ( missing), press  .
- To dial, press: [ ] or [ and hold for two seconds], [country code], [phone number], .
- Talk with antenna above your head and vertical to the ground.



ITU Framework for Cooperation in Emergencies (IFCE)

The IFCE is a framework designed by ITU to primarily deliver and deploy telecommunications/ information and communications resources to countries, humanitarian actors and victims of disaster in a timely manner when ever and where ever disasters may occur through the use of transportable, easy to deploy and reliable systems that are non-exclusive



ITU Framework for Cooperation in Emergencies (IFCE)

Eminent Industry Champion

Technology Cluster

- Satellite operators and Land Earth station operators
- Telecom Operators
- GIS/Remote sensing service providers
- Radiocommunications Equipment Providers

Eminent Corporate Champion

Finance Cluster

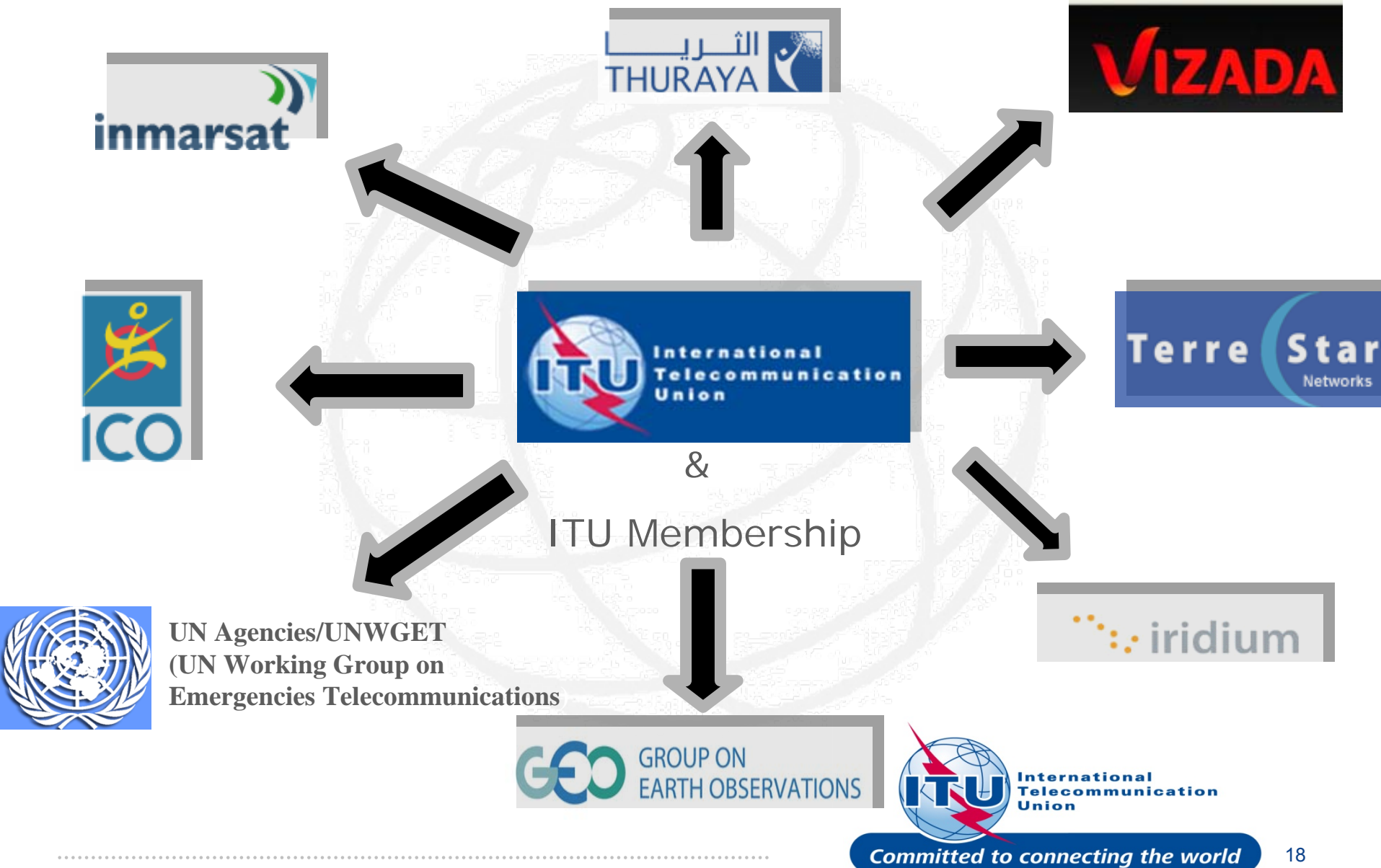
- Governments
- Private Sector
- Development Banks
- Regional Economic Groups

Eminent Corporate Champion

Logistics Cluster

- Air Transport operators
- International Couriers

Partnering for humanitarian work



Conclusion

- Simple satellite equipment can save lives
- Satellite equipment can be utilised effectively for disaster preparedness, response and relief
- Equipment training and regular retraining is key

Thank you

www.itu.int/ITU-D/emergencytelecoms

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