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SATELLITE PHONE USAGE IN DISASTER MITIGATION

Various reports estimate that the demand for satellite phone services has increased at an annual average of 30% since 2001. However, reports indicate disaster-related increases of much larger proportions. In the days immediately following the 9/11 attacks, regional subscriptions quadrupled and Hurricane Katrina produced a regional increase of 20%.

Disasters by description are overwhelming, unplanned events killing or injuring large numbers of people and wreaking havoc on property and infrastructure. These crises come in many forms including natural elements such as Hurricane Katrina, and man-made destruction such as the 9/11 attacks. The recent past has witnessed a tremendous scale of disaster situations from both mediums, but particularly from the natural disaster field. The International Federation of the Red Cross and Red Crescent reports that since 1991 there have been 2557 natural disasters worldwide. NOAA reports that from 1980-2006 the United States alone experienced seventy weather-related disasters with damages exceeding $1 billion each.

In the aftermath of disaster, the fundamental mitigation tool is communication. Disaster mitigation services cover a range of functions including coordinating search and rescue, arranging supply deliveries, and establishing telemedicine links. If information cannot be accessed and exchanged, then these functions cannot proceed. During and after a disaster, there are often scathing criticisms of uncoordinated relief responses. What is ***not*** often discussed is the underlying response inhibitor -- a *compromised communication infrastructure*.

Currently, many emergency responders depend on terrestrial based communication, either landlines or mobile phones. However, in most disaster situations, the viability of terrestrial communication systems is compromised – disabled or disrupted -- early on. For example:

- On 9/11, when terrorists felled the World Trade Center and damaged surrounding property, much of Manhattan immediately lost landline and cellular service for days
- During Hurricane Katrina, over 3 million landline circuits and over 1000 cell sites were decimated for weeks

All disasters – natural or man-made -- have the potential to affect terrestrial communications services. However, satellite phone service can potentially "survive all such disasters, because the satellites are safely distant, somewhere way up in the sky".[1] With the capabilities of voice, data, and fax transmission, satellite phones can be crucial in disaster relief effort.

Satellite phones have an advantage over terrestrial based phone systems both in disaster usability and remote location coverage. Not only is terrestrial service vulnerable to disaster, it is sometimes not even available prior to disaster. While the average worldwide landline density is around 50% and approximately 70% of the world's population is in a mobile service area, this still leaves a significant portion not served by terrestrial communications. "In places where there is no terrestrial infrastructure, or in places where the infrastructure is not usable – such as post-hurricane Florida – sat phones can fill the gap," summarized William Johnson, Professor of Telecommunications Engineering Technology at Rochester Institute of Technology.[2]

In addressing the successful role of satellite communications in the otherwise ill-equipped Katrina response, some authorities have suggested U.S. legislative requirements for non-terrestrial communication infrastructures for disaster preparation. In a 2005 interview, Mike Beavin, then director of government relations for the Satellite Industry Association, stated "Maybe there are some new requirements needed legislatively," … "It may be the most critical communication infrastructures need to be backed up by something that doesn't rely on an existing terrestrial network."[3] Likewise, the 2004 report of the President's National Security Telecommunications Advisory Committee recommended that alternate communications equipment such as satellite phones be made available to a broad range of emergency responders. In 2007, satellite industry official Matthew Desch stated in Congressional testimony that "the move to satellite communications equipment for emergency situations makes perfect sense—widespread and catastrophic damage on the ground, or the remoteness of a particular location, simply does not impact a satellite communications network located in space. No matter where disaster occurs, mobile satellite communications equipment can be immediately available for critical communications needs."[4]

Officials worldwide have recognized the advantage of satellite phones over terrestrial based services both in disaster operations and remote location coverage. In 2006, Yoshio Utsumi, Secretary-General of the UN International Communication Union, urged planning for satellite phone deployment in disasters situations, stating, "The tsunami that wreaked havoc in South East Asia, the Kashmir earthquake, the Suriname floods, and the Indonesian earthquake have demonstrated the power of emergency telecommunications in saving lives and coordinating efforts during rescue operations…"[5] In March 2007, the United Nations signed a commercial agreement for the provision of portable satellite phones for disaster relief.

Finally, while human life and culture cannot be adequately economically expressed, there is an economic benefit to crisis preparation. Crisis managers report that for every $1 invested in crisis preparation, approximately $7 are saved in potential losses. Consequently, many crisis managers are now recommending satellite phones as part of a crisis preparation package. As a result, in addition to the traditional patrons (such as government, aviation, energy, and maritime endeavors), the new customer base includes a larger base of business and media enterprises.

REFERENCES

1. All about satellite phone service. Travel Insider. 3/31/2006(www.thetravelinsider.info)
2. Koprowski G. Satellite phones on the rise. Space Daily, 8/20/2004
3. Frederick M. Satellite companies offer communication services to Gulf Coast. Space News Business Report 9/12/2005.
4. Desch M.(Chairman and Chief Executive Officer, Iridium Satellite LLC). Senate Committee on Commerce, Science, and Transportation Hearing on the Present and Future of Public Safety Communications. 2/08/2007.
5. International Telecommunication Union. UN mobilizes portable satellite phones for disaster relief. Emergency Telecoms Newslog. 7/14/2006