

USING ICT FOR EFFECTIVE DISASTER MANAGEMENT

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The Role of Satellites in Effective Disaster Management

- Presented in Session 4 of the conference, the “Operators and Disaster Management” session.
- Participants from private industry included African ICT service providers such as Ericsson, Rohde and Schwarz, and consultants, etc.
- Participants from government authorities included the Commonwealth Secretariat, CTO, Disaster Management Government Authorities from Sierra Leone, Lesotho, etc., Government Communication Authorities and ministries, and consultants working for the government such as the senior advisor of UN/ISDR, etc.
- The importance of the role of satellite communications in disaster management was recognised in all three phases i.e. pre-disaster, response and post-disaster.
- The presentation also stressed on the use of satellite imagery as being important for the response and post disaster phases.
- Discussions highlighted the limited availability of ICT in most countries in Africa, and the perception of them being a “luxury” rather than a necessity that can mitigate the impact of disaster by facilitating communication.
- Emphasis was laid on developing satellite broadband communications in rural areas not only for disaster management, but also to make them a part of everyday life for the people of Africa.
- Constantinos Kassianides suggested that ICT for disaster management can be setup to also cater to the day to day communication needs of the people. He provided an example of a van carrying satellite broadband technology that in a disaster situation would provide basic communications and coordination with recovery teams (through WiFi, VOIP, etc.). When there is no disaster situation at hand, the same van can travel to rural areas to educate people on the use of internet, and give them an opportunity to communicate with their loved ones. This would lead to optimal use of the infrastructure setup for disaster management and dramatically increase the cost efficiency for governments. He went on to illustrate how this “sharing” of infrastructure is also possible with portable satellite terminals.
- Government participants showed keen interest in using ICT for disaster management, and the idea of using the same infrastructure for everyday needs appealed to them. In the extremely cost-conscious economies of Africa, any increase in cost-efficiency is welcome.
- The forum produced practical outputs which many participants have indicated they will use to improve disaster management practices within their respective countries or organisations.

The Role of Mobile Satellite Services in Disaster Response

- Mobile Satellite Services (MSS) was covered in talks and demonstrations spanning the first two days of the conference.
- On day 1, the presentation provided an overview of MSS services and applications, including their role in disaster situations, and a live demo of a satellite link over an MSS satellite terminal.
- The demo covered live pointing and set-up of the terminal, followed by a demonstration of broadband internet access, including a full-screen live video streaming of the BBC parliament channel.
- On day 2, the presentation focused on case studies involving the activities of Télécoms Sans Frontières (TSF) on the use of MSS in both disaster relief and disaster prevention.
- A second demonstration followed the presentation, this time of an MSS satellite audio link, by means of a telephone call to a representative of TSF in France, who was able to provide a short address to the conference over the live satellite link. The satellite link was made again during the panel question and answer period, and allowed TSF to participate and answer questions in an audio conference configuration.
- As evidenced by the comments and questions, the presentations and demonstrations of both days were very well received and generated considerably interest.
- Apart from clarifications on some of the technical aspects, questions focusing on the cost of infrastructure and communication services were raised. The message seemed to be well taken that satellite, in addition to being proven to be by far the most cost effective solution in quite a large number of situations, also need not be expensive in the absolute.
- One of the case studies presented on the second day involved a famine prevention network using MSS satellite to transfer data between 12 very remote regions in Niger, for which the total monthly communications costs were kept under US\$100 per month.
- Adding further to this was the recurring message of the conference that resources spent on prevention and readiness were paid back many times over in the mitigation of the cost of a disaster when it occurs.
- Another concern was of the availability of power, for which it was acknowledged that mobile satellite installations, and in particular MSS terminals, require minimal power. This fact was illustrated by Ethan Lavan during his demonstration, where the MSS link was online the entire afternoon using a small terminal powered by a rechargeable battery only slightly bigger than a marker pen.
- Other questions included those of licensing, which were particularly well addressed given the high representations of regulators and Ministries present, as well as an enquiry regarding access to satellite services for relief efforts, in particular those provided by TSF.
- The participants exhibited a strong feeling that administrations and agencies should be looking towards more national autonomy in their disaster readiness including the use of appropriate ICT. It appeared that the positive representation of the role of satellites by the ESOA participation in this conference would assure an appropriate place for satellite in the thinking amongst the participating administrations and agencies of the conference.