

# GVF Responsibility

David Hartshorn, Secretary General of the Global VSAT Forum, talks to InterComms about issues of radio frequency interference and corporate social responsibility



**David Hartshorn is Secretary General of the GVF, the London-based non-profit international association of the satellite industry. The Global VSAT Forum consists of more than 170 members from every major region of the world and from every sector of the industry, including satellite operators, manufacturers, system integrators, and other service providers.**

**Mr. Hartshorn leads the Forum's efforts to facilitate the provision of satellite-based communications solutions throughout all nations of the world. In particular, Mr. Hartshorn works closely to support national-, regional- and global-level policy makers as they formulate state-of-the-art satellite regulatory frameworks.**

**He is also responsible for creating greater awareness of the commercial, economic, political and technological advantages that VSAT-based communications provide.**

**Mr. Hartshorn has worked in the satellite communications industry for 18 years, serving in sales, business development, publishing and**

**association offices based in North and Southeast Asia, North America and Western Europe.**

**He has been published in hundreds of editions of magazines and newsletters, and has spoken and chaired at conferences and seminars in every major region of the world.**

**Q: Give me a thumbnail sketch of the radio frequency (RF) interference problem?**

**A:** The satellite industry has become a victim of its own success. As deregulation and volumes have been increasing in recent years, so too has the extent to which signal interference has been introduced. One of our satellite operator members did a rough calculation, estimating that for every three of their satellites in the constellation, they were spending and or losing \$10m per year due to RF interference.

**Q: What are the sources of this interference?**

**A:** The three top sources are broadband wireless access services, poor installation and an absence of type approvals.

Broadband wireless access services, being introduced in C-band, particularly in developing countries around the world, are a huge source of interference. To address that, our organisation has been working with the WIMAX industry, governments and with the satellite industry to seek a solution. Unfortunately, we have not been able to find a cost effective technical solution after three years of effort. The best we can do is to advise governments of the nature of this problem and to encourage them to have deployments of broadband wireless access occurring further away from C-Band.

Secondly, is the interference being generated by untrained or insufficiently trained technicians who are deploying VSAT earth stations around the world. We have estimated that there are thousands of individuals worldwide who are getting their hands on VSAT equipment with a view to installing it. In many and possibly most cases, these individuals have not been

sufficiently trained and in some cases not trained at all. As soon as they point a transmitting device into the sky, unbeknownst to most of them, they are spraying the orbital arc with interference signals.

A global initiative has been launched by the industry and the centre piece of which is endorsement and support for the GVF's certification programme. We have begun signing contracts with VSAT manufacturers and with major satellite operators to facilitate expanded access world wide with even the poorest nations supporting this certification programme. We have begun setting up training centre partnerships in every major region of the world and we are moving exponentially larger numbers of trainees through the programme.

Third are type approvals. In the old days, all of the major satellite operators required type approval testing to be conducted on any VSAT equipment or any satellite earth station equipment that was to be used in conjunction with their satellite constellation. This testing was administered by the satellite operator and the manufacturer was the one who bore the cost of testing to show that it was in conformity with specifications and administered by the satellite operators. Over time, it was thought by the satellite industry that type approvals were no longer necessary. That might have been the case if all factors had remained static but they didn't. What we saw with deregulation, was the industry being a victim of its own success. In the absence of a type approvals regime, being administered by the satellite operators community, those manufacturers will set about creating these dishes and mass producing them, not adhering to any type of specification and creating massive problem of interference.

**Q: What has the GVF done about this?**

**A:** The GVF has launched a world wide, outsourced type approvals mechanism, for any manufacturer who wants to engage it, we will provide what we call an authorised test entity to work closely with their engineering group on their product, to make sure that it conforms with international

► specifications. We will provide a type approval certificate upon successful completion of testing of the system and this then can be used by manufacturers to demonstrate that they keep a good house and they can use it as a marketing tool.

**Q: I've noted that the GVF is becoming increasingly interested in and supporting corporate social responsibility as a market?**

**A:** The GVF is called upon regularly by our industry to build platforms in vertical markets, where enterprises and other entities in a given market can come to a fuller knowledge of the relevance of a satellite and their applications. One of those vertical markets in which we have been running events is the energy sector. Some months ago, when the price of crude was down near \$40 per barrel, our organisation was called upon by a major oil company to sit with them for a couple of days and to explore ways they could reduce their costs. For years now, there has been widespread recognition in the energy sector, that satellite communications is a tiny expense item in their expense sheet but contributes hugely to increased production and decreased costs.

One of the issues that arose was the fact that the oil companies were required to spend significant sums of money in countries where they are exploring, drilling and maintaining production. In many cases, oil companies are fulfilling their corporate social responsibility obligations by building and cutting roads through jungles, building large public buildings and distributing books into schools. All of these services are good, but in a very few cases were companies opting to provide financially sustainable and comparatively low cost satellite-enabled communications to support community programmes, whether it is for health clinics, schools or village connectivity. We pointed this out to the company at the time and there was resonance with them on this concept. Particularly, since in almost every case where there is an oil company in a developing country, they already have a satellite service provider and local infrastructure is being used by the

oil company. Bandwidth capacity could be added onto the network for extension or outreach of services to support a local community programme. For a very low cost, building on existing infrastructure, but with very high impact, the oil companies could be satisfying their social responsibility obligations using satellite, often in combination with other technology tools – WiFi, digital microwave or fibre optics. We picked up on the high level of interest from one company and have now gone to the wider energy sector and this idea that has begun to be picked up by companies who are exploring specific projects where these deployments might occur. The initiative has been expanded to include not only the energy sector, but also mining, pharmaceuticals, and other corporate enterprises.

**Q: What are you doing to take this further?**

**A:** Right now we are planning a series of events world wide to bring together all of the stakeholders who would be involved to support such a programme, including NGO communities. By NGO, I am speaking here of organisations who specialise in working with the community, such as Oxfam, Save the Children and Water Aid. Supporting communities is not the core competency of the communications industry generally. There is a natural marriage inherent in this concept where the NGOs can support the schools, health clinic etc, while the network can be provided and perhaps operated by members of our industry. Governments have



a number of important potential roles to play. First, they need to make sure that the regulatory framework in that country is such that it will not only enable, but encourage the deployment of private communications services throughout the entire country, whether it is urban or non urban, how do you encourage it? Second, because the millennium development goals have been designed by heads of state around the world, commitments have been made by national administrations to achieve certain measurable gains in providing connectivity in their country by 2015. So, a number of countries around the world have been taking steps to prepare for actually delivering on that promise. As part of that they have been preparing universal service funds - these are special funds where they tax, typically between one to three percent of all telecom revenue in the country, and that money is then placed in Universal Service Funds (USF). These are then theoretically used to seed fund the deployment of communications in areas that are the least likely to be provided with communications by any other means. Billions of dollars is sitting in these funds around the world while governments figure out how they can responsibly and effectively apply that money. The GVF have begun working with governments to help answer that question. As recently as last week, we helped to co-organise and co-manage a conference, with the Commonwealth telecommunications organisation held in Livingstone, Zambia with approximately a half dozen African nations present as well as the private sector, NGOs and other stakeholders. We spent three days looking at options on how USFs can be applied to enable the delivery of ICT in rural areas of developing countries. We will be conducting similar programmes in every major region of the world as quickly as possible. We believe now more than ever before there is huge potential for collaboration amongst public and private sector organisations and that is a major focus for the GVF at the moment.

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