

WBU-ISOG FORUM

DAY 2 – Wednesday, November 3, 2010

Main Conference Room
ASBU Headquarters
Tunis, Tunisia

SUMMARY NOTES (Draft)

Participants:

Please see the WBU-ISOG Forum Registration List.

Presentations:

Copies of the presentations are available through the WBU Secretariat.

2.0 WELCOME REMARKS

WBU-ISOG Chair Dick Tauber welcomed participants back for another day and thanked the sponsors of the previous evening's dinner – AsiaSat, Ericsson and Eutelsat – for having provided a wonderful dining experience. Abdelrahim Suleiman offered welcome remarks on behalf of ASBU and provided logistical information about the Farewell dinner being co-sponsored by the Union and Arabsat, as well as the excursion planned for the following day.

2.1 WILL YOU STICK YOUR NECK OUT FOR 3D?

D. Wood had multiple duties for this session, as he not only acted as moderator, but also gave his own presentation as well as one that had been forwarded by M. Chabrol (Eutelsat), who was unable to attend the Forum meeting. The other panelists for the session were: Claude Stoffel (Ateme), Damon Semprebon (IDC -International Datacasting), and Abderrahmane Bessaih (Genesis Networks). Some of the ideas put forward during the session included the following:

- 3D has appeared in cycles over the years (the 30s, 50s and 80s) and it is unknown whether the current interest will again turn out to be just a fashion.
- 3D is having success in Digital Cinema and will be featured in Pay-TV bouquets, but 3D for free-to-air TV should not be expected for at least three years, if ever.
- Most of the 3D live events broadcast to Digital Cinema in 2010 were sports, even though many sports do not work well in 3D (e.g., boxing works well in 3D as does golf, but football does not).
- Gaming will play a major role in driving the sales of 3D consumer sets.
- There are a number of eye issues associated with 3D (e.g., image realism, eye discomfort and eye fatigue) and more research is required before the full impact of these issues is known. There is always going to be a portion of the audience that does not like to watch 3D, no matter how good it gets.

In discussion, D. Wood asked panelists what needs to be done in order to have 3D carried on Contribution networks. C. Stoffel said that if broadcasters wanted to have full resolution, it would require setting up a separate path for distribution only to broadcasters. He noted as well that there is no particular standard for this at the moment, although the DVB organization has set up Working Groups at which standards for Contribution are being discussed.

D. Wood wondered whether it would be a good idea to write to the DVB Project about designing a standard. C. Stoffel thought this would be helpful, but D. Semprebon was reluctant to agree, as this would be a very long road and he thought it may be too early to standardize. He did agree with C. Stoffel, however, that there is no substitute for good quality and that 2x1080p uncompressed is the right answer. He added that 720p looks better than 1080i in every test done by International Datacasting, and that interlacing with 3D confuses the eye in a way that is not entirely understood. A. Bessaih's comment on the question of standards was that Genesis Networks is ready to do whatever standard / service is requested by the broadcasters.

D. Tauber remarked that some people think the success of 3DTV for home viewing will depend on development of a “no-glasses” screen. D. Wood noted that autostereoscopic displays can be made today for very small screens (e.g., mobile phones), but that it is difficult to make a good one that is large enough to be viewed at home for several reasons (e.g., the screen is very head-position sensitive). To get them to work, he added, it would be necessary to move to a multi-view environment, which he believed could be 10 years away. In addition, he observed that reluctance to wear 3D glasses may diminish with the availability of elegant and comfortable glasses, but even so, 3D may very well be a service that is used specifically for events or programs that run about an hour.

There were also discussions on the following topics:

Toe-in shooting (i.e., pointing the two cameras towards the main object one wants on the screen) – D. Wood explained that the major drawback to toe-in shooting is that it skews the background. His personal view was that toe-in should not be used.

What would look good or bad in 3D from a news perspective – D. Wood suggested that a chat show or news anchors would look good in 3D, while shots taken in the field would not.

Bandwidth issues – A. Bessaih noted that as far as satellite is concerned, companies launching 3D services would need to acquire sufficient bandwidth, which represents an initial cost. However, there are limitations in bandwidth for terrestrial broadcasters, who would have to wait for DVB-T2 in order to launch new, high-quality services in 3D.

The role of equipment manufacturers in driving 3D – There were several remarks to the effect that a move to 3D is being driven by industry, and particularly set-makers, rather than consumers. C. Stoffel remarked on industry lobbying that is underway, while R. Najm said he senses a degree of conspiracy of the manufacturers against consumers and suggested it may not be fair to either consumers or broadcasters to promote 3D across the board, especially since it adds costs and some content is simply not good in 3D. D. Semprebon acknowledged that some manufacturers are trying to sell equipment, but also stated that most people have seen only bad 3D, and that good 3D is a “game-changer.”

In thanking D. Wood and the panelists for an interesting discussion, D. Tauber remarked that the topic of 3D would likely be revisited at future WBU-ISOG Forum meetings.

2.2 USE OF LOW COST VSAT ANTENNAS FOR SNG

The format for this session differed from others, as there were no slide presentations other than a backgrounder provided by the moderator, Jonathan Higgins, as a means of launching discussion among the panel members, who were: Rob Stanley (Sat-Comm Ltd.), Ashley Dove (Vislink), Richard Lamb (SES World Skies) and Martin Turner (BBC Newsgathering). Issues raised and opinions offered in this free-ranging discussion included the following:

- The boundaries between conventional SNG and VSAT are blurred.
- There may be reliability issues related to use of VSAT equipment for SNG, as it has typically been designed for occasional use (e.g., a few times per month rather than several times per day).
- Even with high quality VSAT antennas, what is provided by manufacturers is only the starting point, and users may change things after the units are shipped to the field, raising concerns about the quality of feeds and the potential to cause interference.
- It was suggested that the use of Ka would not cause interference, and several panelists explained the extent to which they had become active in the Ka market.
- For SES, exposure to “red-button, green-button” systems has been limited. So far, things have been alright, but with these systems, one cannot necessarily reach the operator if there is a problem. Potential solutions to this include training and the use of carrier ID.
- The BBC has started to go down the road of using VSAT antennas, and cost has been the driver. However, training is crucial as people with no engineering background are increasingly being

asked to make technologically sophisticated decisions. It is also necessary to maintain the vehicles to ensure they are working to proper specifications.

- Problems may ensue not only from the use of cheap antennas, but also from using antennas that are not qualified for a particular service. There was a suggestion that type approvals could address this problem and provide a level of confidence when it comes to use of lower-cost antennas; however, it was noted that most satellite operators have abandoned individual antenna type approvals.
- The Global VSAT Forum has issued best practices/guidelines for auto-deploy VSAT terminals, and D. Tauber urged ISOG attendees to read this document, which is posted on the WBU web site.
- D. Tauber noted that several manufacturers have included a built-in capability to prevent powering up until there is confirmation that the equipment is pointing where it should, and it would be helpful if all manufacturers would implement this feature.
- One of the fears about lower-cost antennas is that when mistakes are made, they can cause damage across the entire telecommunications arc. This needs to be curtailed, and the end result, like it or not, may be that new, revised regulation will come back.

In closing the session, J. Higgins thanked the panelists and audience members who had contributed to the discussion. D. Tauber added his thanks, noting that there is a need to proceed methodically to sort out the issues discussed.

2.3 **INGENIOUS METHODS FOR PROGRAM TRANSPORT**

In his role as panel moderator, Kazimir Bacic outlined the topics that would be covered, including the DualFlow concept, to be explained by Newtec's Serge Van Herck, and VoIP over ACM or VCM, to be presented by Newtec's Simon Pryor.

S. Van Herck noted that with DualFlow, one unit does both ASI and IP, adding that this technology is future-proof, as it requires only one investment for the migration to IP. It also allows the client to choose the timing for migration. Other points noted were that:

- The transport stream traffic going through the ASI interfaces on DualFlow always has priority over the Ethernet/IP traffic going through the GbE (Gigabit Ethernet).
- DualFlow helps to optimize data transport and get as much out of expensive satellite bandwidth as possible. It also introduces new ways of working by interacting with the broadcast network over satellite to enable increased productivity.

In the second presentation, S. Pryor summarized six promising ideas that have been investigated in relation to Video and Voice over IP over ACM or VCM. He advised that two of the ideas (i.e., Variable bit rate Contribution SCPC with VCM, and Point-to-Point Voice over IP calls using ACM or VCM) had turned out not to be practical due to technical or business issues. However, he was enthusiastic about the potential benefits of the remaining four ideas, which were:

- Managed SCPC Contribution with uplink power density control;
- Multi-Service IP Contribution;
- Flex ACM: Point to Multi-Point at fixed rates; and
- Voice Trunking / Backhaul over ACM

Following the presentations, there was a query about the data rates used in feeds from the 5 SNG trucks in a case study referenced by S. Van Herck. It was noted that the data rate was 1.9 megabits, but since ACM was used, the speed would go down in the presence of deteriorating weather conditions or other types of interference. In such instances, the transmissions would continue, but at a lower rate.

There were several questions about the way in which the material presented might apply to the business operations of ISOG attendees. One point emphasized by S. Pryor was that operational cost savings can be large because one can still provide fixed services, but without wasting a lot of the bandwidth, and one can share this margin around to places that are raining at the time, so effectively, instead of needing a complete transponder, one needs only a fraction of that. The end result, he added,

is that one can use the same bandwidth to support more customers, or less bandwidth to support the same amount of customers.

WBU-ISOG Chair D. Tauber observed that there had been a great deal of complex technical information to absorb during the presentations, and suggested that additional questions be taken off-line in private discussions. He then thanked K. Bacic and the panelists for their contributions to the day's proceedings.

2.4 CONTRIBUTION VIA SATPHONE SERVICES

After an introduction to the session by D. Tauber, Mike Seery (Inmarsat) gave a presentation focusing on four major areas: improvements in the management of the BGAN Network; the 2012 launch plans for the advanced L-band satellite Alphasat as an addition to the I-4 constellation; an update on the BGAN X-Stream service, for which revenues are currently tracking at double the forecast with highest uptake in the Asia-Pacific and Middle East regions; and, details about features of the IsatPhone Pro.

The second presentation, given by Tariq Al Suwaidi (Thuraya), focused on such matters as: industry "firsts" introduced by this company (e.g., dual-mode Sat-GSM phones); the company's network system; key products, including ThurayaIP, a light-weight plug and play terminal that allows users to manually choose asymmetric streaming speeds (e.g., 256 kbps for upload but 16 kbps for downloading of voice) and, the benefits of the company's IP solution.

In discussion, J. Higgins inquired about the GPS system on the Inmarsat IsatPhone Pro. M. Seery explained that first-time registration on the network requires GPS coordinates, which are sent automatically. Afterwards, the user sends coordinates when he or she wishes, and the information is protected. Responding to a question from D. Tauber regarding typical rates and costs for the Thuraya service, T. Al Suwaidi noted that prices depend on the package chosen, adding that there are numerous packages to meet the needs of users in the media sector.

R. Najm observed that while portability and ease of use are important to broadcasters, so is the cost of ownership over the lifetime of a device. He then wondered if comparisons had been done on the cost effectiveness of the devices being discussed relative to FNG (FastNewsGathering). In reply, M. Seery acknowledged that there is a tipping point at which the usage of BGAN is less cost-effective than FNG or SNG; however he was unable to be more specific about numbers. He also pointed out that the beauty of BGAN and ThurayaIP services is not only mobility, but also on-demand access and the fact that you only pay when you use them, so the customer does not need to commit to a large expense for capacity. T. Al Suwaidi commented that these services are a perfect solution for the "first minute" when disaster happens.

Responding to a question on data rates, M. Seery noted that the minimum guarantee with BGAN X-Stream is 384 kbps, but since the full channel is allocated to the user, the typical speeds are anywhere from 420 to 450, and on occasion, as high as 470. T. Al Suwaidi indicated that the maximum streaming speed on ThurayaIP is 384 kbps, but for standard IP, the speed can go above 500 when an accelerator (hardware) is used. D. Tauber ended the session by thanking the panelists for coming to Tunis to share information about these services.

2.5 LESSONS FROM MAJOR EVENTS

In the final session of the day, which was moderated by Howard Fine, there were presentations from Rhys Morgan (Intelsat) and Martin Turner (BBC). A third presentation was forwarded (and subsequently posted on the WBU web site) by Robert Oszvald (Media Broadcast), who was unable to attend the ISOG Forum meeting due to illness.

In discussing the challenges associated with coverage of major events, including the Haitian earthquake, the 2010 World Cup in South Africa and the rescue of the Chilean miners, the panelists highlighted the following as some of the lessons learned:

- There is a need to plan ahead where possible, but it is also crucial to make up one's mind early, even when there is lots of time for planning as there was with the World Cup. In a disaster situation, make an early call about how big the story is going to be and then react accordingly.
- Cash and food are the only real currency in disaster situations. Take plenty of money and ensure that you have access to local contacts who can assist once you get there.
- It is necessary to be flexible and adaptable. Since audiences are now news aggregators and publishers, a key requirement for journalists today is to be where the story is and to provide a continuous stream of content.
- Aim for multi-mode connectivity in as simple a package as possible.

In discussion, H. Fine asked what is done about food in disaster situations. M. Turner noted that BBC has assembled proper emergency response kits (tents, water, MREs) for those going into disaster areas. R. Morgan explained that the Intelsat team picked up supplies in Haiti after landing at the airport and said the company was actually fairly weak in terms of in-house provision of supplies other than technical equipment. He noted as well that if the Intelsat team had stopped to gather provisions before leaving, the delay may have prevented their chartered plane from being able to land in Haiti.

When asked about licensing difficulties with regard to the FIFA World Cup in South Africa, R. Morgan noted that local legislation had been passed, as part of the bid document, to relax the licensing for Ku band – and to an extent, C band – and that people were able to negotiate their way through the process, although it was laborious. Intelsat, he added, had anticipated having a lot of problems with licensing, but in the end, the nightmare that had been envisioned never materialized.

Referring to the Haiti coverage, H. Fine asked whether BBC planning is done by a central committee or on an ad hoc basis. M. Turner replied that there is a central planning team as well as “hub bureaus” in various parts of the world, and the way in which they work together depends on the type of story, where it happens and the time of day or night at which it happens. He noted as well that in his opinion, BBC has become too reliant on low band-width solutions, which are fine for initial coverage but are not right for continuing coverage.

D. Tauber agreed that BGAN is a great tool for “first pictures,” but like all tools, it should be used to do what it is meant to do. He also shared a story about CNN’s decision on the Chilean story to find a path on a truck that was already there rather than send a flyaway, noting that in the long run, this decision probably incurred a much higher cost. The session was closed with thanks to H. Fine, R. Morgan and M. Turner.

CLOSING REMARKS AND ANNOUNCEMENTS

D. Tauber reported that CBC had offered to host the 2011 meeting in Montreal on October 26-27th. He also noted he had always been a proponent of having two meetings per year, and asked for input about the prospect of having a meeting earlier in the year in North America as well. Comments included the following:

- M. Coleman suggested having a spring meeting adjacent to the Washington Satellite show or NAB in Las Vegas. Another idea was to meet alongside the Broadcast Asia event in Singapore.
- T. Gibbon felt that attendees at major events already have their plates full and that the ISOG Forum should be scheduled separately, perhaps in New York or at Intelsat HQ in Washington in May. He also said he favours two meetings a year in order to maintain momentum and that he had no problem with the prospect of two consecutive meetings in North America, as it might boost what has been dwindling attendance by North American broadcasters.
- D. Tauber outlined concerns regarding sponsorship issues and suggested that perhaps a group of satellite operators could be approached about joint sponsorship of a meeting at Intelsat HQ.
- J. Harding pointed out that ISOG Forum meetings entail expenses for the Secretariat, and that any proposal would have to be reviewed by the Heads of the Unions.

After further discussion, it was agreed that:

***** The Secretariat would poll the WBU-ISOG membership on their views regarding the possibility of having two Forum meetings per year. (DONE)**

In his closing remarks, D. Tauber conveyed thanks on behalf of all present to both ASBU and Arabsat for their hospitality and support in regards to arrangements for the meeting. He also thanked the WBU Secretariat staff, especially Anh Ngo. A. Suleiman reiterated how pleased ASBU was to have hosted the meeting, noting that the discussions had been very useful to the Union and its members, while R. Najm extended best wishes to participants and said he hoped they would enjoy the farewell dinner that evening and the excursion the following day. There being no further business, D. Tauber then adjourned the WBU-ISOG Forum meeting with thanks to all.

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