

## Initiatives for WBU-ISOG and WBU-TC Investigation Working Document: 2006

The following list identifies areas of potential interest and exploration by both WBU-ISOG and WBU-TC in 2006. It is anticipated that consistent with Committee terms of reference, WBU-ISOG will explore these topics from a broadcaster operational perspective and the WBU-TC will:

- Advise broadcast members on technologies that could be a benefit or a threat to their operation.
- Identify early warning of essential technological developments that could improve and enhance operations.
- Continue to promote the application of open standards for the transport and exchange of programming.

### Proposed Topics for Investigations

- Advanced Video Compression – which (e.g. AVC, VC-1, DIRAC, JPEG 2000), when, and how fast?
- Work in establishing an IP-based content delivery network to move from private networks to a public internet network for contribution traffic programme exchange.
- Issues with respect to transporting HD contribution via fibre or satellite.
- The role of DVB-S2 to improve throughput.
- HD codec interoperability tests for advanced compression (Telesat AVC tests)
- Investigation of HD Standards Conversion (60/50 Hz)
- News Metadata – EBU news exchange initiative and NABA metadata program exchange initiative
- Mobile devices for backhaul – systems and standards?
- Use of Information and Communications Technology (ICT) in contribution networks (including security mechanisms and device control and monitoring)

### ISOG Priorities for WBU-TC / WBU-ISOG investigation (submitted for WBU-TC consideration Nov. 14, 2005)

#### Action for all:

Establish project lead and timelines

1. **Advanced Video Compression** - Review of developing technologies with an eye towards practical implications of each approach. Issues such as latency for live broadcasts, advantages and disadvantages for various applications such as broadcast, video over IP, digital cinema, etc. need to be understood. Also extensibility and timing of development of the various technologies will have an impact on decision-making concerning adoption.
2. **IP-Based Content Delivery** - Better understanding of the advantages and limitations of IP based content transmission is needed. In particular the use of IP for contribution feeds needs further definition with a key factor being the definition of an acceptable amount of latency for live broadcasts and tradeoffs in reducing latency versus bandwidth and quality.
3. **DVB-S2** - Investigation as to the practicality of the various modulation schemes identified in DVB-S2 for newsgathering operations. Understanding of the tradeoffs in quality, bandwidth, availability and costs.
4. **HD Standards Converters (50/60 Hz)** - Identify criteria for acceptable standards conversion. Work with manufacturers to make sure their products meet the criteria.

Other items on the draft list such as HD contribution for newsgathering, mobile devices for backhaul and the use of Information and Communications Technology (ICT) in contribution networks are longer-term items.

HD codec interoperability testing and news use of metadata for program exchange are well underway in ISOG.