

## Minutes, ATSC Planning Committee

13 December 2005, 10:00 a.m. – 4:00 p.m.  
NAB, 1771 N Street NW, Washington, DC 20036

### 1. WELCOME AND INTRODUCTIONS

Chairman Sterling Davis (Cox Broadcasting) called the meeting to order at 10:07 a.m. at the Headquarters of the National Association of Broadcasters in Washington, D.C. He thanked NAB for hosting the meeting and welcomed the participants. Chairman Davis asked each member to identify him or herself. The attendance list is given in **Attachment 1**.

### 2. APPROVAL OF DRAFT AGENDA

Chairman Davis asked for consideration of the draft agenda, which was posted to the PC reflector on December 9 (PC-099, **Attachment 2**). He noted that Art Allison (NAB) and Mark Eyer (Sony) have a proposal that relates to Item 8; he suggested adding this presentation as agenda Item 8.1. Chairman Davis also said that Item 15 can be withdrawn since there is no activity to report. He added that some agenda items might need to be rearranged in order to accommodate the travel requirements of members. No further changes were requested and the draft agenda was approved as amended.

### 3. APPROVAL OF DRAFT MINUTES FROM THE SEPTEMBER 20 MEETING

Chairman Davis asked for consideration of the draft Minutes of the September 20 meeting, posted to the PC reflector on November 21 (PC-090, **Attachment 3**). No changes were requested and the document was approved as submitted.

### 4. REVIEW OF ACTION ITEMS FROM THE SEPTEMBER 20 MEETING

The following action items were developed at the September 20 meeting of the Planning Committee. Bracketed dates indicate items carried forward from a previous meeting [date].

- 1) Robert Blanchard to pursue participation in the PVR AHG by a Sony representative (or another CE manufacturer). [2005-05-11]  
*Overtaken by events.*
- 2) Chairman Davis to present to the ATSC Board of Directors the Low Bitrate Video/Audio Program Streams Requirements Document, as amended at the May 11 meeting. [2005-05-11]  
*Completed.* The document was presented to the Board at its September 28 meeting (**Attachment 4**)
- 3) Chairman Davis to identify a broadcaster to serve as the chair of an AHG to develop the ACAP demonstration project. Participating in the AHG will be Wayne Luplow, Mark Richer, and Glenn Reitmeier. [2005-05-11]  
*Completed.* Chairman Davis announced that Jon Dakss (NBC Universal) will chair the AHG.
- 4) Chairman Davis to present the revised draft PC Scope to the ATSC Board of Directors for consideration at its next meeting.  
*Completed.* The final Scope approved by the Board is given in **Attachment 5**).
- 5) Jerry Whitaker to repost AS-073 to the “admin” reflector calling attention to the effort and inviting interested persons to participate in the project in order to move it forward.  
*On agenda.*

- 6) Garry Paxinos to complete the output report of the Advanced Codec AHG and post the document to the PC reflector

*Completed.* The document was posted to the PC reflector on October 7 (**Attachment 6**).

## 5. OPENING REMARKS, CHAIRMAN

Chairman Davis noted that the PC agenda is quite full and, in recognition of the time limitations of members, he urged the committee to move discussions along expeditiously.

## 6. VERY LOW BITRATE VIDEO AND AUDIO STREAMS

Chairman Davis opened the discussion by asking for opinions on whether AS-055r2, "Requirements for Low Bit-Rate Video and Audio Streams," should be developed within ATSC as a Standard, Recommended Practice, or Informational Document (**Attachment 4**). He said it is unclear whether the document should be taken to the ATSC Board with a recommendation for additional work.

Mike Dolan (TBT) reviewed the background on this document. He said there are really two issues: 1) implementation considerations, and 2) the impact of existing constraints on MPEG-2 coding at low bit rates. Mr. Allison said further work would be useful to address the technical need for greater specificity in the carriage of such data. For example, he said there are very real application needs for "barker" channels, and guidance on the technical issues involved would be useful. Mr. Allison noted the New Work Item Proposal (NWIP) process for starting new projects; he suggested that the PC could work toward developing a formal NWIP.

Chairman Davis noted that this discussion has naturally flowed into the next agenda item.

## 7. DISCUSSION ON MOVING PENDING PROJECTS FORWARD

Chairman Davis noted that the end of the year is a good time to assess how certain projects, which have been discussed in the Planning Committee for some time, might move forward. Among the specific projects he identified were EAS, very low bit rate video/audio, and streaming text data. He went on to suggest that, should the committee wish to move forward on any of these projects, a New Work Item Proposal would be appropriate for each.

Chairman Davis reviewed the requirements for submission of a NWIP to the Board for formal consideration. Discussion followed on the best route forward. Bob Rast (Micronas, and Chair of the ATSC Board), provided background on the reasons for the NWIP and how to best address the requirements of the process, specifically securing commitments from at least five organizations to work on the project.

Chairman Davis suggested that the best path forward might be to develop draft NWIP proposals and circulate them for comment and support.

### 7.1.1 EAS

Chairman Davis called attention to previous efforts in the area of EAS, specifically:

- AS- 020, "DTV EAS Considerations" (**Attachment 7**).
- AS-023r1, "Draft Application and Requirements of a DTV Emergency Alert System" (**Attachment 8**).

Discussion focused on whether sufficient support exists within the PC to move this project forward. John Henderson (Hitachi) suggested a posting to the "admin" reflector to identify persons interested in working on the project. This approach was supported by other committee members.

Chairman Davis took an action to develop a draft NWIP based on AS-023r1 and circulate the document for comment, requesting commitments from organizations willing to support the work.

### 7.1.2 Very Low Bit Rate Video and Audio Streams

Mr. Allison **moved** that a NWIP be developed based on AS-055, "Requirements for Low Bit-Rate Video and Audio Streams" (**Attachment 4**). **Second** by Walt Hussak (Dolby). The motion was **approved** without objection. Chairman Davis asked for commitments from organizations willing to work on this project, receiving positive responses from Dolby, Zenith, NAB, and TBT. Chairman Davis took an action item to develop a draft NWIP based on AS-055 and circulate the document for comment, requesting commitments from organizations willing to support the work.

### 7.1.3 Streaming Text Data

Mr. Dolan **moved** that a NWIP be developed based on AS-065, "Streaming Text Data Services Application Requirements" (**Attachment 9**). **Second** by Mr. Allison. The motion was **approved** without objection. Chairman Davis asked for commitments from organizations willing to work on the project, receiving positive responses from TBT and NAB. Chairman Davis took an action to develop a draft NWIP and circulate the document for comment, requesting commitments from organizations willing to support the work.

## 8. REPORT FROM PC-1 ON NEW CODEC ISSUES (JOHN HENDERSON, BILL MILLER)

Chairman Davis reminded the committee of the draft charge for the group, as agreed to at the September 20 meeting:

"To develop a transition and business plan (including relative timing) to facilitate reaching consensus within ATSC concerning the use of advanced codecs in the main stream and/or in E-VSB."

Chairman Davis asked AHG co-chairs Bill Miller (ABC) and Mr. Henderson to report on discussions to date.

Mr. Miller outlined the current status of work in the AHG. He said the discussions have been productive, and added that all parties have recognized the need for give-and-take. He said the committee has been working to find common ground, recognizing that developing a transition plan is a difficult task. Discussion followed on specific issues relating to the work of the AHG.

### 8.1 Proposal on Service Type Architecture

Chairman Davis stated that Mr. Eyer and Mr. Allison have drafted a proposed technical solution that might address some of the issues being discussed in the PC-1 AHG (**Attachment 10**). Mr. Eyer noted that market forces and the "chicken & egg" issue represent ongoing challenges. He said a "Service Type" model could be used to manage difficult transition issues.

Mr. Eyer suggested an architecture to define services requiring new codecs and allow such services to access them if they are needed, thereby permitting the industry to begin to establish a base of new-generation receivers. The presentation outlined a technical process whereby new service types could be utilized. For legacy receivers, the new service type would be ignored.

Under the "Parameterized Service Type" scenario, a new `service_type` would be defined (e.g., 0x07 = Parameterized Digital TV). The new descriptor would be present in the VCT and list the values of codecs that must be supported in the receiver for a given new channel. The list would represent a minimum set; not all codecs might be in use at all times.

The benefits of the proposed Parameterized Service Type architecture were outlined as follows:

- 1) The DTV Standard could be amended now to define a mechanism to transport new codecs in the Main Stream without any ATSC or industry commitment to one or two new

codecs, or causing any public concern leading to disruption of the current market for DTV products.

- 2) A receiver with a type-x codec would be ready to support new services using the type-x codec.
- 3) Provides an easy method for the receiver to skip channels that cannot be decoded.
- 4) Market forces can determine the best next-generation codec, and the codec choice could be made via a de-facto standard.
- 5) This approach is backwards compatible with legacy receivers.
- 6) This approach can be used to signal future new service structures.

Mr. Allison and Mr. Eyer suggested that the Planning Committee formally consider this concept. A wide-ranging discussion followed.

Chairman Davis thanked Mr. Eyer and Mr. Allison for their efforts. He encouraged PC-1 to consider the document in its ongoing work.

### **9. PRESENTATION ON A-VSB (ROHDE & SCHWARZ AND SAMSUNG)**

Chairman Davis introduced Mike Simon (Rhode & Schwarz), who briefed the committee on the Advanced-VSB (A-VSB) proposal developed jointly by Rhode & Schwarz and Samsung. He noted that a NWIP on this project will be considered by the ATSC Board of Directors at its December 15 meeting.

Mr. Simon reviewed the overall architecture of the proposed A-VSB system (**Attachment 11**). He said the objective of A-VSB is to provide a tool-kit that facilitates extensible physical layer services while maintaining backward-compatibility for legacy receivers. Mr. Simon outlined the fundamental strengths of the existing 8-VSB system and how the A-VSB system builds upon those strengths to establish a known symbol pattern, which can then provide powerful new capabilities—specifically, improved receiver performance with regard to multipath.

Mr. Simon outlined the technical details of the A-VSB system and the service benefits of the proposal, namely:

- Effective dynamic channel tracking through use of a defined Supplementary Reference Sequence (SRS)
- Normal stream performance improvement in a dynamic channel
- 100 percent compatibility with legacy ATSC receivers
- Improved mechanism for single frequency network design

Chairman Davis thanked Mr. Simon for the briefing and asked him to keep the PC informed on the progress of the Rhode & Schwarz/Samsung work.

The meeting broke for lunch at 12:30 p.m. EST

The meeting resumed at 1:05 p.m. EST.

### **10. QUERY REGARDING MOBILE/HANDHELD RECEPTION AND IPTV (CHRIS LENNON)**

Chairman Davis reported that Harris has indicated an interest in exploring potential business opportunities for mobile and handheld applications. Chris Lennon (Harris) said his company has experts involved in these areas and is willing to make contributions in this regard. Chairman Davis sought to frame the discussion. Mr. Lennon explained that he anticipated a business-related examination of potential portable and mobile devices using the DTV system. Mr. Allison encouraged PC to explore this area, and the sooner the better.

Chairman Davis recognized the consensus of the committee to move forward with Mr. Lennon's suggestion. Mr. Lennon took an action item to bring back a presentation on the potential business cases for handheld and/or mobile applications.

#### **11. REPORT FROM SMPTE S.22-10 (CHRIS LENNON)**

Mr. Lennon reported good progress on the SMPTE S.22 work, with a high level of participation in the effort (**Attachment 12**). The goal, he said, is to develop a standardized means of data exchange among traffic, automation, and digital content distribution systems. He noted that an aggressive timeline for completion has been set because of marketplace pressures to finish the work. Current efforts are focused on the following:

- Complete the main schema work
- Develop the configuration elements schema
- Liaison with TSG/S1 on expanded PMCP compliance
- Work on an RP or EG

Discussion followed on the work of S.22 and their plans for moving forward.

#### **12. REPORT ON MANAGING TECHNOLOGY & INNOVATION, A DTV ROADMAP**

Ira Goldstone (Tribune) provided an update on the DTV Roadmap project, the objective of which is to bring together broadcast and CE executives. He said the AHG needs to meet again and resume work on the project. Mr. Goldstone said broadcast industry leaders intend to meet soon to discuss big-picture issues, and following that meeting the path forward for this project should become clearer.

Chairman Davis noted that the AHG members are Craig Tanner (Sharp), John Henderson (Hitachi), Lynn Claudy (NAB), Ed Caleca (PBS), Wayne Luplow (Zenith), Mr. Goldstone, and Chairman Davis.

#### **13. DISCUSSION: "HOW STANDARDS CAN BE EVOLVED IN AN ORDERLY MANNER WITHOUT UPSETTING THE DTV ROLLOUT"**

Chairman Davis reminded the committee of the genesis of this agenda item. Specifically, at the May 11 meeting Mr. Rast suggested that the PC could undertake to discuss how standards can be evolved in an orderly manner without upsetting the DTV rollout. Chairman Davis agreed this would be a valuable undertaking and set aside time at this meeting to explore the question.

Mr. Miller offered that the type of approach outlined previously by Mr. Eyer and Mr. Allison relating to service types is very constructive and holds considerable promise for evolving standards in an orderly manner. Mr. Henderson said it is clear that DTV technologies will need to evolve over time. He suggested that, for example, every five years all of the technologies that have been developed by TSG could be rolled-up for new versions of the appropriate standards. The approach, he said, would preserve the ability of ATSC to continue developing standards without adversely impacting the product pipeline and consumer market. C. B. Patel (Samsung) recognized the value in Mr. Henderson's suggestion, but worried that it would not work in practice because of the delay to final publication of new specifications. Mr. Allison agreed with Mr. Patel, saying innovation cannot be managed in that manner. He said, instead, a way should be found to decouple marketplace issues from standards development. Brian Markwalter (CEA), recognizing the complexities of the related industries, reminded the committee that we need to be cautious going down this road. Additional discussion focused on other ways of managing the introduction of new technologies, with comments from Mr. Rast, Ren McMann (CBS), Wayne Bretl (Zenith), and others.

Chairman Davis drew the discussion to a close, commenting that it was a useful exercise that the committee should repeat in the future. Mr. Allison suggested that PC could work to identify niche services, such as specific data broadcast applications (some of which are done in a proprietary manner). He said we tend to focus strictly on mass market applications, to the exclusion of niche markets. Steve Smith (Liberty) echoed that sentiment, saying a number of stations are trying innovative services specifically for niche markets. Mr. Rast suggested this topic might be appropriate for the “Roadmap” effort.

Chairman Davis asked Mr. Allison to work up a “thought piece” document on the possibility of decoupling markets and standards, including potential niche market applications, and post it to the PC reflector for additional discussion and input.

#### **14. REPORT ON REQUIREMENTS DOCUMENT FOR AS-073, SURVIVING THE ERA OF THE DVR**

Chairman Davis called attention to AS-073, “Surviving the Era of the DVR.” He noted that work on this project within the PC may cease for lack of a member to lead it. Mr. Miller suggested that AS-073 be shelved until such a time as there members interested in working on the project. Mr. Eyer noted that a Technology Group Report on the subject may be forthcoming from TSG/S8. Following additional discussion, the committee decided to follow a path similar to that agreed to for the EAS/low bit rate/streaming text issues above. Mr. Lenon said Harris would support work in this area.

Chairman Davis took an action to develop a draft NWIP based on AS-073 and circulate the document for comment, requesting commitments from organizations willing to participate in the work.

#### **15. REPORT ON ACAP DEMONSTRATION PROJECT PLANNING (JONATHAN DAKSS)**

Chairman Davis recognized Mr. Dakss and thanked him for agreeing to lead the ACAP demonstration project AHG. Other members of the group are Glenn Reitmeier (NBC), Jimmy Goodman (Capitol Broadcasting), Wayne Luplow (Zenith), Mr. Richer, and Chairman Davis.

Mr. Dakss said he intends to develop a demonstration project built around a specific program that would be decoded and displayed using an ACAP set-top box. The goal would be to demonstrate how ACAP could be used to enhance the viewing experience. He suggested that the demonstration could take place at the upcoming NAB convention (April 2006).

Mr. Whitaker took an action item to work with Mr. Dakss to post a note to the ATSC “admin” reflector calling attention to the project and inviting participation.

Mr. Whitaker noted that a reflector has been set up for the AHG, and a document archive has been created on the PC Home Page of “atscmembers.org.”

#### **16. REPORT ON INDUSTRY EDUCATION AND TRAINING (JERRY WHITAKER)**

Mr. Whitaker provided an update on current educational activities, specifically:

- The *IEEE Proceedings Special Issue on Digital Television* project is winding down, with publication scheduled for January 2006. Mr. Whitaker went on to thank all of the contributors and reviewers who assisted in preparation of the papers. He said special thanks goes to the other members of the ATSC Guest Editor Board—Yiyan Wu (CRC), Tom Gurley (consultant), Graham Jones (NAB), Rich Chernock (Triveni), and Mr. Reitmeier.
- ATSC, in cooperation with SBE, is organizing a one-half-day seminar focusing on digital electronic news gathering (ENG). Set for February 21, the program will be held in conjunction with the 11th Annual Hollywood Post Alliance Technology Retreat in Palm

Springs. The seminar will review the current ENG landscape and discuss what next-generation services and equipment will be needed to meet emerging broadcast requirements. Program details and registration information can be found on the ATSC Web site: <http://www.atsc.org/seminars/2006/techretreat06.html>

- The “ATSC Update” column in *Television Technology* magazine is on the schedule again for 2006. Mr. Whitaker expressed appreciation to the editors of TVT for their support of ATSC activities.

Mr. Whitaker thanked Lisa Hester, ATSC Director of Communications, for her efforts over the past year in the area of education and training activities. He noted that Ms. Hester will be leaving ATSC at the end of the year. He said the ATSC staff wishes her all the best.

## 17. OTHER BUSINESS

Steve Smith said there is a need to discuss implementation issues relating to Directed Channel Change at a future meeting. Chairman Davis agreed to place this item on the February 7 agenda.

## 18. ACTION ITEMS REVIEW

The following action items were developed at today’s meeting. Items carried forward from a previous meeting are noted by [meeting date].

- 1) Chairman Davis to develop a draft NWIP based on AS-023r1 and circulate the document for comment, requesting commitments from organizations willing to support the work.
- 2) Chairman Davis to develop a draft NWIP based on AS-055 and circulate the document for comment, requesting commitments from organizations willing to support the work.
- 3) Chairman Davis to develop a draft NWIP based on as-065 and circulate the document for comment, requesting commitments from organizations willing to support the work.
- 4) Chris Lennon to prepare a presentation for PC on potential business opportunities for hand-held and/or mobile applications.
- 5) Art Allison to work up a “thought piece” document on the possibility of decoupling markets and standards, including potential niche market applications, and post it to the PC reflector for additional discussion and input.
- 6) Chairman Davis to develop a draft NWIP based on AS-073 and circulate the document for comment, requesting commitments from organizations willing to support the work.
- 7) Jerry Whitaker to work with Jon Dakss to distribute a note to the ATSC “admin” reflector calling attention to the ACAP demonstration project and inviting participation.

## 19. NEXT MEETING DATES

Chairman Davis noted that the next meeting of the Planning Committee will be held on February 7, 2006. Other meetings in the coming year include:

- 11 May 2006
- 26 September 2006
- 12 December 2006

## 20. ADJOURNMENT

There being no further business before the Planning Committee, the meeting was adjourned at 3:10 p.m. EDT.

## Attachments

- Attachment 1.** PC-103, Attendance List  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/PC-103\\_12\\_13\\_05\\_attendance.xls](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/PC-103_12_13_05_attendance.xls)
- Attachment 2.** PC-099, Draft Agenda  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/PC-099\\_Draft\\_Agenda\\_05\\_12\\_13.doc](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/PC-099_Draft_Agenda_05_12_13.doc)
- Attachment 3.** PC-090, Draft Minutes of September 20 Meeting  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/PC-090\\_Minutes.doc](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/PC-090_Minutes.doc)
- Attachment 4.** AS-055, Requirements for Low Bit Rate Video and Audio Streams  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/AS-055r2\\_Low\\_Bit\\_Rate\\_Video-Audio.doc](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/AS-055r2_Low_Bit_Rate_Video-Audio.doc)
- Attachment 5.** PC-102, Final Approved Scope  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/PC-102\\_Scope-approved%209-28-05.doc](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/PC-102_Scope-approved%209-28-05.doc)
- Attachment 6.** PC-092, Final Report of AHG on LBR Codecs  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/PC-092\\_%20Recommendation\\_PC\\_AHG\\_LBR\\_Codecs.doc](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/PC-092_%20Recommendation_PC_AHG_LBR_Codecs.doc)
- Attachment 7.** AS-020, DTV EAS Considerations  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/AS-020.pdf](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/AS-020.pdf)
- Attachment 8.** AS-023, Applications and Requirements of DTV EAS  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/AS-023r1.doc](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/AS-023r1.doc)
- Attachment 9.** AS-065, Streaming Text  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/AS-065R5\\_streaming\\_text\(changes\\_accepted\).doc](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/AS-065R5_streaming_text(changes_accepted).doc)
- Attachment 10.** PC-106, New Service Type Proposal  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/PC-106\\_Codec\\_Impasse\\_PC\\_12-05r1.ppt](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/PC-106_Codec_Impasse_PC_12-05r1.ppt)
- Attachment 11.** PC-104, AVSB Report  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/PC-104\\_AVSB\\_PC.pdf](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/PC-104_AVSB_PC.pdf)
- Attachment 12.** PC-105, S.22 Working Group Status  
[http://www.atscmembers.org/sg/AS/2005\\_12\\_13\\_Meeting/PC-105\\_Data\\_Exchange\\_WG\\_Update.ppt](http://www.atscmembers.org/sg/AS/2005_12_13_Meeting/PC-105_Data_Exchange_WG_Update.ppt)