

Minutes, Technology Group on Distribution 25 June 2002

Advanced Television Systems Committee

1750 K Street, N.W.

Suite 1200

Washington, D.C. 20006

www.atsc.org

The Advanced Television Systems Committee (ATSC), is an international, non-profit membership organization developing voluntary standards for the entire spectrum of advanced television systems.

Specifically, ATSC is working to coordinate television standards among different communications media focusing on digital television, interactive systems, and broadband multimedia communications. ATSC is also developing digital television implementation strategies and presenting educational seminars on the ATSC standards.

ATSC was formed in 1982 by the member organizations of the Joint Committee on InterSociety Coordination (JCIC): the Electronic Industries Association (EIA), the Institute of Electrical and Electronic Engineers (IEEE), the National Association of Broadcasters (NAB), the National Cable Television Association (NCTA), and the Society of Motion Picture and Television Engineers (SMPTE). Currently, there are approximately 160 members representing the broadcast, broadcast equipment, motion picture, consumer electronics, computer, cable, satellite, and semiconductor industries.

ATSC Digital TV Standards include digital high definition television (HDTV), standard definition television (SDTV), data broadcasting, multichannel surround-sound audio, and satellite direct-to-home broadcasting.

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Minutes, ATSC Technology Group on Distribution

10:00 a.m. – 4:00 p.m., Tribune, 435 N. Michigan Avenue, Chicago, IL
June 25, 2002

1. WELCOME, INTRODUCTIONS, AND DETERMINATION OF QUORUM

Chairman Ralph Justus (CEA) was unable to attend today's meeting, and so he asked that William Miller (ABC) serve as chairman.

Chairman Miller called the meeting to order at 10:00 a.m. CDT at the headquarters of Tribune in Chicago. He thanked Tribune for hosting the meeting and welcomed those in attendance. He asked each person to identify themselves. The attendance list is given in **Attachment 1**.

2. APPROVAL OF PROPOSED AGENDA

Chairman Miller asked for consideration of the draft agenda (**Attachment 2**). Jeff Kraus (NCTA) suggested that DASE Harmonization Status (Item 13.4) should be reordered to appear earlier in the T3/S17 report. Following some discussion, Chairman Miller decided to leave the agenda order as submitted. Mike Dolan (consultant) suggested that an item relating to ISAN be added to the T3/S8 report; he suggested adding the item after 12.3. No further changes were offered and the agenda was accepted as modified.

3. APPROVAL OF THE DRAFT MINUTES OF APRIL 17, 2002 MEETING

Chairman Miller called member's attention to the draft Minutes of the April 17, 2002, T3 meeting, which were distributed to the T3 reflector on June 11, 2002 (**Attachment 3**). Secretary Jerry Whitaker (ATSC) stated that editorial corrections had been identified by Mr. Dolan (consultant) and Richard Chernock (IBM). Art Allison (NAB) identified two additional editorial corrections. No further changes were requested and the draft Minutes were accepted as revised.

4. OPENING REMARKS

Chairman Miller observed that T3 has made considerable progress in moving important documents forward since the last meeting, and he thanked all participants for their hard work.

5. COMMENTS BY THE PRESIDENT (MARK RICHER)

Mark Richer (ATSC) reported on current activities within the organization. He called members attention to a meeting, scheduled for tomorrow, between CableLabs and representatives of ATSC designed to discuss potential harmonization of DASE with CableLabs efforts in this arena. He expressed the expectation that progress would be made, and he identified this effort as an important step forward for both organizations.

Mr. Richer outlined the new policy regarding ATSC resources, approved by the Board of Directors at its May 14 meeting. He said that restricting use of ATSC resources to ATSC members was simply a matter of prudent management. Because exceptions can be made to the policy, Mr. Richer said he did not expect the change to have any material impact on the work of ATSC specialist groups.

Mr. Richer reported that a new phone bridge system has been installed at ATSC headquarters, and that the organization will transition soon from the current service. He said the new system will provide greater flexibility for members and reduce operating costs.

Mr. Richer also reported that the ATSC annual meeting, held May 15 in Washington, D.C., was a great success. He said a number of high-level speakers were on the program and that attendance by ATSC members was quite good. He briefed the committee on the DASE technology demonstration held during the event, and commented that the annual meeting was an important step forward for ATSC.

Mr. Richer also discussed items relating to ATSC procedures for dealing with Amendments and Corrigenda for ATSC Standards documents. Mr. Richer said he is currently working on drafting a policy that will be submitted to the Board of Directors for approval in the near future.

5.1 Status of Ballots

Mr. Richer reported on the status of current ballots (**Attachment 4**), specifically:

5.1.1 Membership ballots

- **Data Broadcast A/90 Amendment 1:** approved, 22 yes, 1 no; editorial privilege 20 yes, 2 no.
- **DTV Standard A/53B Amendment 1:** approved, 22 yes, 1 no; editorial privilege 22 yes, 1 no.
- **PSIP Broadcaster RP:** closes today.

5.1.2 T3 ballots

- **ARM (re-ballot):** comment review
- **PSIP A/65A Amendment 2:** comment review
- **PSIP A/65A Amendment 1A:** comment review

5.2 Other

There were no other items to report.

6. BRIEF REPORTS ON ACTIONS FROM THE PREVIOUS MEETING

The following action items resulted from the T3 meeting of April 17, 2002.

- 1) Whitaker to post the ballot results summary provided in printed form at this meeting to the T3 reflector. *Completed*
- 2) Chernock to post to the Proposed TSFS Standard, upon finalization in T3/S13, to the T3/S13 reflector for a two week comment period, and if no substantive issues are raised, the document shall be posted to the T3 reflector for a two-week comment period. If no substantive comments are received during this comment period, the document shall be delivered to ATSC staff for a four week ballot of T3. *In progress*
- 3) Chernock to post the draft aggregated event table document developed by Eddie Schwalb to the T3/S13 reflector and to then bring back to T3 a proposal for moving forward, if the specialist group determines that such activity would be appropriate work for T3/S13. *On agenda*
- 4) Shah to distribute an advanced copy of the Proposed Satellite Broadcast Standard, upon finalization in T3/S14A, to the T3 reflector two weeks prior to the next T3 meeting to facilitate review and comment. *On agenda*

- 5) Eyer to form a comment resolution AHG to address comments received during the T3 ballot of A/65A Amendment 2. *Completed*
- 6) Eyer to form a comment resolution AHG to address comments received during the T3 ballot of A/65A Amendment 1A. The ad hoc group shall consist of the following persons: Weiss (chair), Eyer, Allison, and others which could include commenters. *Completed*
- 7) Adams to bring to T3/S17 the question of moving forward on DASE-1, currently at Candidate Standard status, and to return a consensus recommendation to T3 at the June 25 meeting. The possible options shall include: 1) recommend to extend the Candidate Standard status for a specified period of time, 2) recommend that DASE-1 be forwarded to a vote of the full membership, or 3) recommend that the DASE specification be returned to the Working Draft status. *Completed*
- 8) Adams to report to T3/S17 that T3 adopted T3-571 as the DASE-2 work plan for the specialist group to follow, and that T3 directs the specialist group to develop a schedule to carry out the necessary work, with identification of major milestones as appropriate. *On agenda*
- 9) Adams to report to T3/S17 the expression of interest from CableLabs regarding DASE harmonization, and that the specialist group is directed to initiate plans for moving forward on such efforts, working through Richer—initially at least. Adams shall lead the effort and to report back to T3 as soon as possible on important developments. *On agenda*
- 10) Richer to respond to Richard Green of CableLabs regarding DASE harmonization, reporting that ATSC would like to work with them to the extent possible. *Completed*
- 11) Adams to draft a response to Brian Aldous, chairman of ITU-R Working Party 6M, regarding correspondence titled “Progress Report on Harmonization of Procedural Functionalities for Interactive TV Applications.” Adams shall forward a draft response to Richer for preparation of an official ATSC response. *Completed*
- 12) Eyer to forward to ATSC staff T3-560r1 as amended by T3/S6-148. Staff shall then send the document to a vote of the full membership. *Completed*
- 13) Chairman Justus to report to the Board of Directors that T3 recommends that Art Allison (NAB) serve as the ATSC liaison to SCTE. *Completed*

7. NEW WORK ITEMS FOR DISCUSSION

7.1 Assigned by Board of Directors

Mr. Richer reported there were no new work items assigned by the Board. Chairman Miller, referring to a directive from the Board in February relating to VSB enhancement, announced that work in T3/S6 is about to begin relating to video and audio compression. He asked that any individuals interested in participating in this work contact him. Mr. Allison suggested that T3/S6 should develop a revised scope of work as a way of beginning the effort.

7.2 Implementation Subcommittee

Art Allison (NAB), Chairman of IS, reported there were no work items to discuss. He did, however, provide a liaison report covering the following items:

- The Frequently Asked Questions IS Informational Document has been posted on the ATSC Web site.
- The RF Working Group has prepared a draft report that analyzes link budget issues relating to DTV reception. He characterized this work as an important step forward in

identifying real-world operating conditions for DTV receivers. The document will be considered as an IS Finding at the July meeting.

- An IS Finding has been published that discusses the latency issues involved in DTV systems, from program origination through to broadcast. The document is now posted on the ATSC Web site.

7.3 Other

Chairman Miller reported that work is underway to revise A/54, "The Guide to the Digital Television Standard." He called upon John Henderson (Hitachi) to update the committee on work relating to Section 10 of A/54, which deals with receivers. Mr. Henderson said he will be leading the effort to update Section 10 under the reactivated T3/S10 specialist group. He said several individuals have already agreed to help, and he invited any other persons interested in this work to contact him. Chairman Miller asked Mr. Henderson to post a note to the T3 and T3/S10 reflectors advising members of the work planned and asking for volunteers to assist.

8. REPORT OF THE SPECIALIST GROUP ON RF TRANSMISSION, T3/S9 (JOHN TOLLEFSON)

John Tollefson (PBS) reported on activities within the T3/S9 RF Transmission specialist group, which held its most recent meeting on May 22 (**Attachment 5**).

8.1 Broadcom Extended Training Sequence Response

Mr. Tollefson reported that laboratory testing of the NxtWave/Zenith and Philips systems has been completed. A specialist sub-group led by Robert Seidel (CBS) is analyzing the test data and plans to issue a report by July 17, 2002. Mr. Tollefson added that Broadcom has stated its intention to supply equipment for testing. The specifics of the testing program are covered in Agenda Item 8.4.

8.2 Distributed Transmission Draft Standard

Mr. Tollefson reported that a subgroup led by Merrill Weiss (Tribune) has completed the first draft of the proposed Distributed Transmission Standard. He said the draft is currently under review by specialist group members. Mr. Tollefson added that work is underway in Pennsylvania to build a practical implementation of the distributed transmission system.

8.3 Status of Revised Draft A/53

Mr. Tollefson reported that a drafting group led by Mr. Henderson has completed a first draft revision of A/53 that reflects the VSB enhancement work currently underway within T3/S9. He said the draft document is posted on the ATSC Web site in the T3/S9 area. The draft, which includes only dual-stream systems, is to be used as guide for testing and simulation.

8.4 Testing Progress

Mr. Tollefson reported on the status of VSB enhancement testing currently underway. He said that VETC, which reports to T3/S9 at every meeting, has completed laboratory testing of the NxtWave/Zenith and Philips systems, and will begin testing the Broadcom proposal when equipment is delivered. VETC will begin field testing when certain transmitter problems are resolved. Backward compatibility testing, including the Broadcom proposal, is currently underway at CRC. Field testing of the Broadcom system is awaiting equipment from Broadcom.

Mr. Tollefson reported that VETC will not complete its work by end of July as previously planned. He said the organization will provide an estimated completion date after the outstanding equipment issues are resolved.

8.5 S8 Liaison

Mr. Tollefson reported that liaison work with T3/S8 relating to transport stream issues implicit in the dual-stream VSB enhancement proposals is proceeding. This effort is being led by Mr. Allison.

8.6 A/54 Revised Draft Status

Mr. Tollefson reported that a subgroup led by Wayne Bretl (Zenith) has begun work on the transmission-related sections of A/54. A first-draft revision of Section 9, which deals with the RF sub-system, is currently being reviewed.

9. REPORT OF ARM, T3/S18 (MIKE DOLAN)

Mr. Dolan, T3/S18 chair, reported on the work completed to date in the Application Reference Model specialist group (**Attachment 6**).

9.1 Review ARM T3 Ballot Comments

Mr. Dolan reported on the work within T3/S18 to review and resolve comments received during the T3 ballot of the draft ARM Standard. He said the group had contacted commentors and invited them to participate in the activity. In summary, a total of 30 comments were considered:

- 15 comments were received during the T3 ballot from four companies
- There were seven open editorial comments that were pending (code points, works in process references, and so on)
- Eight late comments (post-ballot) were received from T3/S18 members

Disposition of the comments is as follows:

- 15 were resolved
- 4 were addressed (late comments only)
- 4 were withdrawn
- 7 open (editorial only) comments remain (references to ATSC works in process and code point registry for descriptor_tag values)

Mr. Dolan called members attention to document ARM-029R3, which is a detailed review of comments and their disposition (**Attachment 7**). A redline of the draft ARM Standard, relative to the T3 ballot version, is given in T3-448f (**Attachment 8**).

9.2 Disposition of Revised Document

Mr. Dolan said the comment resolution team's changes to the draft ARM Standard were not substantive in nature, and he reported the recommendation of the group that the document be forwarded to a ballot of the full ATSC membership.

Mr. Dolan **moved** that T3-558 be sent to a vote of the full ATSC membership. **Second** by Mr. Allison. The motion was **approved** on a voice vote.

9.3 Future of T3/S18 Specialist Group

Mr. Dolan stated his opinion, as chair of T3/S18, that the specialist group has concluded its mission and purpose. He said any residual business related to T3-558 could be handled by T3/S13, and he proposed to conclude T3/S18 by merging any remaining work into T3/S13; Mr. Dolan so **moved**. **Second** by Edwin Heredia (Microsoft). The motion was **approved** on a voice vote.

10. REPORT OF THE SPECIALIST GROUP ON DATA BROADCAST, T3/S13 (MIKE DOLAN)

Mr. Dolan, recently named chair of T3/S13, reported on activities in the specialist group (**Attachment 9**).

10.1 Robust Mode Signaling

Mr. Dolan reported on the efforts planned by the specialist group regarding the February Board of Directors work item relative to data broadcasting issues as they relate to possible VSB robust mode transport. He said notice has been provided to T3/S13 members to begin initial discussion on this subject. Mr. Dolan went on to propose a basic work plan that includes the following elements:

- Understand the T3/S9 design points
- Review T3/S8 output on requirements and considerations
- Develop data-related requirements
- Design a data framework consistent with the T3/S8 work
- Draft a new standard or A/9x amendments as needed

Discussion followed on the scope of the proposed T3/S13 work and what target completion date might be practical. Several members observed that this work is complex, and is interrelated with the robust mode transport stream efforts now underway in T3/S8. A target completion date for the T3/S13 work of the end of this year was suggested, although several members voiced concern that such a target may be overly optimistic.

10.2 Aggregated DET Proposal

At the April 17 T3 meeting, T3/S13 was given an action to consider the draft SCTE Aggregated Event Table document and to bring back to T3 at this meeting a proposal for moving forward, if the specialist group determined that such activity was appropriate work. Mr. Dolan asked T3 for clarification of this work item and—if possible—to provide T3/S13 with written requirements.

Chairman Miller asked that T3 give some guidance to T3/S13 on this issue, and several viewpoints were offered by committee members. Mr. Richer suggested that any work on this subject should be coordinated with SCTE, and that Mr. Allison, as the ATSC liaison to SCTE, should be involved. Mr. Allison took an action item to establish and chair an ad hoc group involving—among others—the chairs of T3/S8, T3/S13, and T3/S14A, for the purpose of coordinating work with SCTE on aggregated tables. Chairman Miller asked Mr. Allison to report back at the next T3 meeting on progress made.

10.3 A/90 Errata

Mr. Dolan reported that an ongoing list of items relating to Data Broadcast Standard A/90 that have been identified since A/90 was initially published have been compiled and enumerated in document S13-105. He said 40 items, ranging from clarifications to errors to minor new topics, have been catalogued. Mr. Dolan **moved** that T3 authorize a new work item for T3/S13 to develop and draft a revision to A/90 (A/90A) that addresses the issues identified in document S13-105. **Second** by Mr. Eyer. The motion was **approved** on a voice vote.

10.4 Proposed T3/S13 Priority Order

Mr. Dolan outlined for the committee the various tasks now facing T3/S13, specifically:

- 1) TSFS T3 ballot comment resolution
- 2) A/90 errata

- 3) Robust mode signaling
- 4) Aggregated DET proposal

Mr. Dolan asked for approval from T3 to move forward with this set of priorities for T3/S13. Chairman Miller observed that it was the consensus of T3 that Mr. Dolan's plan was acceptable.

Mr. Allison recognized Mr. Dolan for his work as chair of T3/S18, and Chairman Miller and T3 commended Mr. Dolan for his efforts on behalf of ATSC.

11. REPORT OF THE SPECIALIST GROUP ON SATELLITE BROADCAST, T3/S14-A (DIPAK SHAH)

Dipak Shah (DIRECTV) reported on activities relating to T3/S14A (**Attachment 11**).

11.1 Progress Report

Mr. Shah was unable to attend today's meeting, but Sam Narasimham (Motorola) gave the report. He stated that work continues on the draft satellite broadcast standard, with current efforts focused on combining all of the elements into a final document. Mr. Narasimhan said T3/S14A expects to be ready to present a draft document for consideration to T3 at the August meeting. Specific remaining work items include:

- Resolve certain transport section issues
- Incorporate a system overview section
- Formalized table ID (PSIP) parameters

Discussion followed on available options relating to references in the draft document to work underway on revision of A/53B Annex C. It was the consensus of T3 to go forward with developing the draft standard, and to not wait for the Annex C work to be completed. Instead, since the Annex C amendment is likely to be completed prior to a T3 ballot on the draft satellite broadcast standard, the T3/S14A document should move forward, with updates relating to the A/53B amendment integrated when finalized.

With regard to completing the draft document, Mr. Shah has said that he plans to ask Mr. Whitaker to assist in addressing remaining editorial issues relating to the draft standard, with the goal of posting the document to the T3 reflector at least two weeks prior to the August T3 meeting.

The meeting broke for lunch at 12:05 p.m. CDT.

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

12. REPORT OF THE SPECIALIST GROUP ON DATA MULTIPLEX/TRANSPORT, T3/S8 (MARK EYER)

Mr. Eyer reported on current activities within specialist group T3/S8 (**Attachment 12**).

12.1 Document Structure Considerations

Mr. Eyer briefed the committee on document structure issues that relate to various standards which are currently under consideration in T3/S8. He said there exists a "circular reference" situation wherein A/65A lists A/53B as a normative reference, and A/53B lists A/65A as a normative reference. He outlined the planned route for moving forward to avoid—to the extent possible—such situations by limiting references to fundamental documents, such as A/53B, to normatively reference only parts of those documents. He went on to outline in some detail how T3/S8 plans to proceed from this point forward.

12.2 Presentation of Amendment 2 to A/53B (Annex C)

Mr. Eyer reported that T3/S8 has completed a thorough review of A/53B Annex C (Transport), and has drafted Amendment 2 to A/53B, T3/S8-475rev. 4 (**Attachment 13**). Mr. Eyer outlined the general parameters of the proposed amendment and answered specific questions about it. Following some discussion, Mr. Eyer **moved** that T3/S8-475rev 4 be send to a ballot of T3. **Second** by Adam Goldberg. The motion was **approved** on a voice vote.

12.3 Status of Amendments to A/65 PSIP

Mr. Eyer reviewed the status of amendments to A/65A. He said Amendment 3, dealing with the redistribution control descriptor, has been approved by the ATSC membership and is now posted on the ATSC Web site. He went on to detail the status of the two other amendments that are pending.

12.4 Amendment 1 – Directed Channel Change

Mr. Eyer reported that T3 ballot comment reconciliation of the Directed Channel Change document (Amendment 1A to A/65A) is complete. He said the comments all either were handled with editorial changes or were withdrawn. The edited document is 65A-Amend1A-18A (**Attachment 14**); changes are shown with redlining. The comment resolution matrix is given in T3-577 (**Attachment 15**). With these changes, Mr. Eyer reported that Amendment 1A is ready for ballot by the full ATSC membership.

12.5 Amendment 2 – Update, Private Data, Clarifications

Mr. Eyer reported that ballot reconciliation has been completed on comments received during the T3 vote on Amendment 2 to A/65A. He said the revised document, T3-552rev. 3 (**Attachment 16**), which incorporates a proposal to tighten the system time tolerance to plus/minus 1 second from the current plus/minus 4 seconds—as described in T3/S8-485 (**Attachment 17**)—is ready to go forward to a vote of the full ATSC membership.

Mr. Eyer outlined the ballot resolution process for Amendment 2A; the comment resolution spreadsheet is given in T3-576 (**Attachment 18**). He said it was agreed that a small number of substantive issues needed to be addressed. In parallel to the ballot resolution work, T3/S8 discussed issues related to the structure of ATSC standards documents, specifically looking at the relationship between the A/53 Digital Television Standard and the A/65 PSIP Standard. As a result of this work, Mr. Eyer reported that T3/S8 requests that certain additional changes to A/65 be incorporated into the revised Amendment 2. Document T3/S8-486 (**Attachment 19**) summarizes the non-editorial changes that were made in development of the revised version of Amendment 2 to A/65A.

Mr. Allison reported that, in a DVS meeting after the Amendment 2 ballot reconciliation and T3/S8 groups had met, it was realized that A/65 did not actually require that the caption service descriptor be used. The revision to DVS 241 requires the presence of the caption service descriptor; it clearly was intended, and it is needed. He explained this information arrived too late for T3/S8 to consider, but suggested that T3 could rectify the situation at today's meeting. As the ATSC liaison to SCTE/DVS, he urged this correction be made and incorporated into the revised Amendment 2 to A/65A.

Mr. Allison quoted the current language of A/65A, Section 6.7.3: “The caption service descriptor provides closed captioning information, such as closed captioning type and language code for events with closed captioning service. This descriptor shall not appear on events with no closed captioning service.” He pointed out that all this requires is that the CC descriptor not be

present when there is no caption service (a requirement which is repeated in the semantics of the `number_of_services` field).

Accordingly, Mr. Allison suggested the following revised language for the introductory paragraph of Section 6.7.3:

“The caption service descriptor provides closed captioning information, such as closed captioning type and language code for events with closed captioning service. This descriptor shall appear in the descriptor() loop for each EIT event that has closed captioning.”

In another PSIP-related issue, Jeff Kraus (NCTA) reported that, in the course of reviewing comments from the ballot of Amendment 2 to A/65A, it was noted that the Table 6.16 list of descriptors for cable contains some “O”s that are not strictly correct. He said the table indicates that cable carriage of the caption descriptor and the content advisory descriptor in EITs is *optional*, but in fact it is the carriage of the EITs that is *optional*, and the descriptors must be carried in the EITs if the EITs are carried. Thus, he explained, the relevant “O”s have been changed to “M”s in the version of Table 6.16 that now appears in Document T3-552rev. 3. However, Mr. Kraus said, he believes there is a risk that the “M”s in Table 6.16 could be misinterpreted and could be viewed as overruling the optional carriage of EITs.

Mr. Kraus offered a memorandum dated June 13, 2002, and given in **Attachment 20**, that proposed a way to clarify this issue and avoid the need to resolve future comments on Amendment 2 to PSIP.

Mr. Eyer discussed how these issues impact the proposed Amendment 2 to A/65A, and the process for moving forward to a vote of the ATSC membership. Comments were offered from Mr. Eyer and Bernie Lechner (consultant), Mr. Heredia, and others.

Mr. Eyer **Moved** to integrate into Amendment 2 to A/65A the three outstanding items outlined at this meeting; i.e., tighter system time tolerance, usage of caption service descriptor, and clarification of cable descriptor usage. **Second** by Mr. Goldberg. The motion was **approved** on a voice vote.

Mr. Eyer **moved** that Amendment 2 to A/65A, as amended by the previous motion, be forwarded to a vote of the full ATSC membership. **Second** by Mr. Goldberg. The motion was **approved** on a voice vote.

12.6 Status of Work on Content Identification and Replacement of A/57

Mr. Eyer reported that T3/S8 has completed a draft standard for Content Identification and Labeling, T3/S8 Doc. 479rev. 1 (**Attachment 21**). He outlined the basic elements of the document and answered specific questions from T3 members.

Mr. Eyer **moved** that the draft Content Identification and Labeling standard be forwarded to a ballot of T3. **Second** by Mr. Allison. The motion was **approved** on a voice vote.

12.7 V-ISAN Activities

Chairman Miller reported that an ISO/V-ISAN meeting is set for September 23 and 24 in Geneva. He said the SMPTE will be participating directly, and there will also be a U.S. delegation. He urged any ATSC members with comments on this subject to make their views known to Mr. Weiss, who will be attending the meeting.

Mr. Dolan asked whether any members of T3 had a position they would like to state on this subject, or otherwise be represented. Mr. Allison went on to give background details on the

issues involved and the importance of giving active support to this process. Chairman Miller said the core issue is not just the structure of the V-ISAN number, but more importantly, the registration procedures, which will have wide impact.

Discussion followed on how best to proceed, with Mr. Richer and Chairman Miller offering observations and suggestions. Mr. Goldberg **moved** that ATSC send a letter to the convenier of ISO TC 36 SC9 Working Group 1 (André Chaubeau) expressing ATSC's urgent need that this work be completed, and explaining that ATSC is basing some of its standards on ISAN and V-ISAN, and has held work in abeyance waiting for completion of this work. **Second** by Mr. Dolan. Chairman Miller asked Mr. Dolan to represent the ATSC position at the Geneva meeting and to answer specific questions as appropriate. The motion was **approved** on a voice vote.

12.8 Status of Work on Advanced EPG Functionality

Mr. Eyer reported that the AHG on Advanced EPG Functionality, chaired by Gomer Thomas (Triveni), has held a number of teleconferences and has been making slow, but steady, progress. He said the current target schedule is to have a complete draft document ready to present to T3/S8 at its next meeting.

12.9 Status of Work on Transport Issues Related to Enhanced 8-VSB Transmission

Mr. Eyer reported that T3/S8 continues work on the transport-related aspects of robust-mode transmission in response to a request from the ATSC Board of Directors. He said that two documents have been presented for T3 review and comment:

- T3/S8-477rev. 1, "Handling PSI and SI in Robust Mode Transport" (**Attachment 22**). This document describes the request by the ATSC Board and lists the detailed requirements, as understood by the T3/S8 ad-hoc group, in the form of "assumptions" and "constraints."
- T3/S8-484rev. 1, "Proposal for Handling PSI and SI in Robust Mode Transport" (**Attachment 23**). This document describes an approach designed to address the requirements outlined in T3/S8-477rev. 1.

Mr. Eyer explained that T3/S8 is asking T3 to review both documents and to provide feedback to Mr. Allison, who is leading this effort.

Mr. Allison suggested that T3 should affirm the plan outlined by T3/S8, or offer specific changes for moving forward. Following some discussion, Mr. Allison **moved** that T3 accept T3/S8-477rev. 1 as a list of requirements for the VSB enhancement work of T3/S8. **Second** by Mr. Weiss. The motion was **approved** on a voice vote.

12.10 Status of PSIP Implementation Guidelines for Broadcasters and Receiver Manufacturers

Mr. Eyer reported that the ATSC ballot on PSIP Implementations Guidelines for Broadcasters closes today, and is certain to be approved. It is unknown whether any comments have been received. Regarding the PSIP Implementation Guidelines for Receiver Manufacturers, Mr. Eyer said the CEA document has been approved and will be published soon.

12.11 Status of Work on Review of Transport Sections of A/54

Mr. Eyer reported that considerable progress has been made on Section 8 of A/54, which deals with transport stream issues. The AHG working on this project, led by Mr. Chernock, has developed a draft document and is continuing to expand and refine Section 8 with weekly teleconferences.

12.12 Other Work Items

Mr. Eyer reported that T3/S8 recommends to T3 that when all three PSIP amendments are approved by the ATSC membership, that Standard A/65B be issued. Mr. Richer stated, however, that a revised standard must be approved by T3 and the full membership. Discussion followed on the reasons for this process, with views expressed by several individuals, including Msrs. Weiss, Allison, Goldberg, Lechner, and Eyer.

Chairman Miller assigned an action item to Mr. Whitaker to bring back to T3 at the next meeting a proposed revision of A/65A incorporating Amendments 1A, 2, and 3 to be known as A/65B, which will be presented to T3 for consideration. It was the consensus of T3 that, assuming the document is delivered to T3 in sufficient time for review prior to the meeting, that the document should be approved by T3 at the August meeting and sent to a ballot of the full membership.

13. REPORT OF THE SPECIALIST GROUP ON DASE, T3/S17 (GLENN ADAMS)

Glenn Adams (XFSI) briefed the committee on work currently underway within specialist group T3/S17 (**Attachment 24**).

13.1 Report on Seoul Meeting of S17 and DASE Deployment in World Cup

Mr. Adams reported that T3/S17 held its most recent meeting on May 21–22 in Seoul, Korea. This venue provided an opportunity for a number of Korean broadcasters, equipment manufacturers, service providers, and government parties to participate more actively in work on DASE. Given that DASE has been adopted as a Korean Standard for terrestrial broadcast of interactive services, there has been a great deal of development activity on the system. Mr. Adams added that after the T3/S17 meeting, a one day seminar on ATSC, DASE, and other iTV activities in Korea was held at a Korean Broadcast Conference. Mr. Richer praised T3/S17 for the Seoul meeting, which he attended, saying it was an important step forward for ATSC in general, and DASE in particular.

Another first for DASE was recorded with the World Cup broadcasts from Seoul this month. The DASE Candidate Standard was used to provide interactive DTV services during the 2002 FIFA Korea Japan World Cup, with support from various Korean broadcasters, professional equipment and consumer electronics manufacturers, and federal agencies.

13.2 DASE-1 Advancement Plan

At the last T3 meeting, Mr. Adams was asked to bring to T3/S17 the question of moving forward on DASE-1, currently at Candidate Standard status, and to return a consensus recommendation to T3 at today's meeting. As outlined by Mr. Adams, the possible options included: 1) recommend to extend the Candidate Standard status for a specified period of time, 2) recommend that DASE-1 be forwarded to a vote of the full membership, or 3) recommend that the DASE specification be returned to the Working Draft status.

Mr. Adams briefed T3 on the consensus of T3/S17 with regard to this issue, which was that some small changes were appropriate in the DASE suite of documents. This work, he said, should lead to finalization of the DASE suite prior to the next meeting of T3. He suggested that T3 consider elevating DASE to Proposed Standard status at that time.

Mr. Adams **moved** that T3 extend the Candidate Standard status for DASE-1 through October 31, 2002. **Second** by Joseph Rodolico (Panasonic). Mr. Kraus suggested that this issue should not be decided until information is provided on the possible changes that might result from discussions relating to harmonization of DASE-1 with CableLabs. In response, Mr. Adams

said the harmonization work may affect DASE-2, but not DASE-1. The motion was **approved** on a voice vote.

13.3 DASE-2 Requirements and Work Plan

Mr. Adams briefed the committee on the background of the DASE-2 discussion, specifically that T3 directed him at the April 17 meeting to report to T3/S17 that T3 had adopted T3-571 as the DASE-2 work plan for the specialist group to follow, and that T3 wanted the specialist group to develop a schedule to carry out the necessary work, with identification of major milestones as appropriate. Mr. Adams reported that T3/S17 had completed this work, and called members' attention to two documents:

- T3-569R3, "DASE-2 Requirements" (**Attachment 25**)
- T3-574R0, "DASE-2 Work Plan, Prioritizations, and Schedule" (**Attachment 26**)

Mr. Adams went on to outline a proposed schedule for T3/S17 work on DASE-2, which includes development of a first working draft document as early as Winter 2002 and a first T3 ballot within the March to June 2003 timeframe.

Discussion followed on the specifics of the DASE-2 requirements and work plan documents. Mr. Goldberg questioned whether the DASE-2 Requirements contained the appropriate direction from T3, given in T3-571. Mr. Allison said, comparing the documents, that he felt substantive changes had been made. Mr. Adams responded that T3/S17 felt it had followed the direction of T3, and he added that if anything other than editorial changes were made, it was unintentional. Mr. Lechner suggested that certain procedural issues are involved, and that they should be resolved prior to any discussion regarding whether substantive changes were made.

Mr. Richer offered some observations on this issue. First, he said, T3/S17 works at the behest of T3; however, the work of specialist groups can only be accomplished by persons willing to do the work. Second, he offered that—in the end—this argument over DASE-2 requirements is unproductive and that somehow T3 and T3/S17 need to get past the Requirements issue and get on with substantive work.

After considerable debate, Chairman Miller called the discussion to a close. Mr. Allison **moved** that T3-574R0 be revised to be use the language from T3-571 for any sentences where a difference exists. **Second** by Mr. Goldberg. Mr. Adams argued against the motion, saying it was unnecessary and would not substantively change any work on DASE-2. The motion was **approved** on a voice vote.

13.4 Harmonization Discussions Status

Mr. Adams said he reported to T3/S17 the expression of interest from CableLabs regarding DASE harmonization, discussed at the April 17 T3 meeting, and that the specialist group has initiated plans for moving forward. He said a meeting is set for tomorrow here in Chicago with representatives from ATSC and CableLabs. He called members' attention to T3S17-317R2, "Possible Goals for Harmonization of OCAP and DASE and Resulting Technical Issues" (**Attachment 27**). He expressed hope that progress could be made on several fronts.

Mr. Adams went on to outline the T3/S17 priority goals contained in the document, which included:

- Enable OCAP receiver to process DASE application content.
- Chose a subset of interesting functionality, possibly unifying differences in names for identical or similar functions.
- Reduce receiver costs by having greater commonality

- Enable content authors to create real-world applications that interoperate with both OCAP and DASE receivers.

Mr. Adams also outlined additional harmonization work involving ITU and the MHP Umbrella Group. Background was provided on these liaison issues from several T3 members.

14. REPORT OF THE SPECIALISTS GROUP ON TRANSACTIONAL SERVICES, T3/S16 (EDWIN HEREDIA)

Edwin Heredia (Microsoft) reported on work currently underway within the specialist group (**Attachment 28**).

14.1 Activity Report

Mr. Heredia said T3/S16 is working to develop a standard that specifies protocols to enable interactive television applications using the combination of broadcast download channels and an interactive two-way channel. He went on to outline a practical home LAN architecture and necessary protocol elements. Mr. Heredia also briefed the committee on the planned protocol modules and layers. He said that work is continuing through meetings and teleconferences.

15. OTHER BUSINESS

15.1 Web Archive File Numbering

Mr. Whitaker brought to the attention of the committee a suggestion by Chairman Miller that a standardized method of directory naming be implemented for the Members' Only area of the ATSC Web site. The specific suggestion was to name directories so that they will automatically sort by date. The naming convention proposed was: (4 digit year)-(2 digit month)-(2 digit day)-(additional information). No objections were raised by committee members.

15.2 Architecture Team Proposal

Mr. Dolan said several items have been identified within the past few weeks which imply that a high-level architecture team should be established as a focal point for consideration of standards review work planned or undertaken. Mr. Dolan suggested that T3 consider forming an ad hoc group of T3 that could address these sorts of issues. Chairman Miller commented that the request seemed reasonable. Mr. Goldberg suggested that this project could involve the span of more than an ad hoc group, perhaps deserving some form of standing committee.

Chairman Miller asked Mr. Dolan to take the lead on this project. Mr. Dolan accepted an action item to form an ad hoc group to address standards architecture issues and to report back to T3 at the August 14 meeting.

16. SCHEDULE OF NEXT T3 MEETINGS

The next meeting of the Technology Group on Distribution will be held on August 14, 2002 in Washington, D.C. The current 2002 T3 meeting schedule is as follows:

- October 8, 2002 in Washington
- December 2, 2002 in California

The tentative schedule for T3 meetings during 2003 is as follows:

- Wednesday March 12
- Tuesday June 24
- Wednesday September 10

- Wednesday December 10

These dates are expected to be finalized shortly.

17. ADJOURNMENT

There being no further business before the Technology Group on Distribution, the meeting was adjourned at 4:00 p.m. CDT.

Action Items Developed at the June 25 Meeting

The following Action Items were developed at the T3 meeting of June 25, 2002.

- 1) Henderson to post a note to the T3 and T3/S10 reflectors advising members that work is about to begin on revising A/54, and asking for volunteers to assist in the project.
- 2) Dolan to send a copy of T3-558, the draft ARM Standard, to ATSC staff for the issuance of a four week ballot of the ATSC membership.
- 3) Whitaker to clear the T3/S18 reflector member list and to set aside the resource as inactive.
- 4) Allison to establish and chair an ad hoc group involving—among others—the chairs of T3/S8, T3/S13, and T3/S14A for the purpose of coordinating work with SCTE on aggregated tables, and to report back at the next T3 meeting on progress made.
- 5) Dolan to report to T3/S13 that T3 has authorized a new work item for the specialist group to develop and draft a revision to A/90 (A/90A) that addresses the issues identified in document S13-105.
- 6) Narasimhan to report to Shah and T3/S14A that it is the consensus of T3 to go forward with developing the draft satellite broadcast standard, and to not wait for the A/53B Annex C work (now underway) to be completed. Instead, since the Annex C amendment is likely to be completed prior to a T3 ballot on the draft satellite broadcast standard, T3 believes the T3/S14A document should move forward, with updates relating to the A/53B amendment integrated when finalized.
- 7) Shah to call upon Whitaker as needed to assist in addressing remaining editorial issues relating to the draft satellite broadcast standard, with the goal of posting the document to the T3 reflector at least two weeks prior to the August 14 T3 meeting.
- 8) Eyer to forward to ATSC staff Amendment 2 to A/53B, T3/S8-475rev. 4, for the issuance of a four week T3 ballot.
- 9) Eyer to forward to ATSC staff Amendment 1A to A/65A (Directed Channel Change) for the issuance of a four week ballot of the full membership.
- 10) Eyer to integrate into Amendment 2 to A/65A the three outstanding items outlined at this meeting—tighter system time tolerance, usage of caption service descriptor, and clarification of cable descriptor usage—and to forward the revised document to ATSC staff for the issuance of a ballot of the full ATSC membership.
- 11) Eyer to forward to ATSC staff the draft Content Identification and Labeling standard for the issuance of a ballot to T3.
- 12) Richer, with input from Dolan and others, to draft a letter to the convenier of ISO TC 36 SC9 Working Group 1 (André Chaubeau) expressing ATSC's urgent need for completion of ISAN work, and explaining that ATSC is basing some of its standards on ISAN and V-ISAN, and has held work in abeyance waiting for completion of this work.
- 13) Eyer to report to T3/S8 that T3 has accepted T3/S8-477rev. 1 as a list of requirements for the VSB enhancement work of the specialist group.
- 14) Whitaker to bring back to T3 at the next meeting a proposed revision of A/65A incorporating PSIP Amendments 1A, 2, and 3 to be known as A/65B, which will be presented to T3 for consideration and approval.

- 15) Adams to report to T3/S17 the following motion, approved at today's meeting: "Moved that T3-574R0 be revised to be use the language from T3-571 for any sentences where a difference exists." The specialist group shall revise T3-574R0 accordingly.
- 16) Dolan to form an ad hoc group to address standards architecture issues and to report back to T3 at the August 14 meeting with recommendations for going forward.

Attachments

Attachment 1: Attendance list

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_1_attendance.doc

Attachment 2: Draft agenda

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_2_draft_t3_agenda_6_25_02.doc

Attachment 3: Minutes of February 13, 2002, meeting

http://www.atsc.org/sg/T3/Apr_17_2002/T3_573_t3_minutes_4_17_02.pdf

Attachment 4: Status of Ballots

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_4_Ballot_status_6_24_02.xls

Attachment 5: T3/S9 Status Report

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_5_T3S9_Report_6_25_02.ppt

Attachment 6: T3/S18 Status Report

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_6_ARM030R0_Status.ppt

Attachment 7: ARM Comment resolution document ARM-029R3

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_7_ARM029R3_Ballot_Comments.doc

Attachment 8: Redline draft ARM Standard T3-558

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_8_T3_558i.doc

Attachment 9: T3/S13 Status Report

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_9_S13_200R0_Status.ppt

Attachment 10: TSFS Draft Standard

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_10_s13_160r10e.doc

Attachment 11: T3/S14A Status Report

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_11_T3Report062502.ppt

Attachment 12: T3/S8 Status Report

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_12_S8_Status_Report_6_02.ppt

Attachment 13: Amendment 2 to A/53B, T3/S8 Doc. 475rev. 4

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_13_T3S8_475r4_A53B_Amendment_2.doc

Attachment 14: 65A-Amend1A-18A, “Amendment 1A of Revision A of ATSC Standard A/65”
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_14_65A_Amend1A_18B.doc

Attachment 15: T3-577, “Ballot Comment Resolution—Amendment 1 to ATSC A/65A”
[http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_15_T3_577_Cmnt_Res_A1A\(DCC\).doc](http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_15_T3_577_Cmnt_Res_A1A(DCC).doc)

Attachment 16: T3-552rev. 3, Amendment 2 (revised) to A/65A
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_16_T3-552r3_Amd2_to_A65A_revised.doc

Attachment 17: T3/S8-485, “Proposal to Tighten System Time Tolerance”
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_17_T3S8_485_STT_accuracy.doc

Attachment 18: T3-576, A/65A Amendment 2 Comment Resolution Spreadsheet
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_18_T3_576_Comment_Resolution_A2A.doc

Attachment 19: T3/S8-486, “Discussion of Revision to A/65A Amendment 2A”
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_19_T3S8_486_on_revised_A65_amd_2.doc

Attachment 20: Kraus Memorandum Regarding PSIP Table 6.16
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_20_T3_CLARIF.doc

Attachment 21: Draft Content Identification and Labeling Standard, T3/S8 Doc. 479rev. 1
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_21_T3S8_479r1_Content_ID_Std.doc

Attachment 22: T3/S8-477rev. 1, “Handling PSI and SI in Robust Mode Transport”
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_22_T3S8_477r1_Handling_SI_in_robust_TS.doc

Attachment 23: T3/S8-484rev. 1, “Proposal for Handling PSI and SI in Robust Mode Transport”
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_23_T3S8_484r1_PSI_for_robust_transport.doc

Attachment 24: T3/S17 Status Report
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_24_T3S17_STATUS_20020625.ppt

Attachment 25: T3-569R3, “DASE-2 Requirements”
http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_25_T3_569R3.doc

Attachment 26: T3-574R0, “DASE-2 Work Plan”

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_26_T3_574R0.doc

Attachment 27: T3S17-317R2, “Possible Goals for Harmonization of OCAP and DASE and Resulting Technical Issues”

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_27_T3S17_317R2.doc

Attachment 28: T3/S16 Status Report

http://www.atsc.org/sg/T3/2002_06_25/Documents/Attachment_28_s16_report_06_25_02.ppt