

Minutes

ATSC Technology Group on Distribution (T3)

10:00 a.m. – 4:00 .pm., PBS
October 3, 2001

1. WELCOME, INTRODUCTIONS, AND DETERMINATION OF QUORUM

Chairman Ralph Justus (CEA) called the meeting to order at 10:00 a.m. at the headquarters of the Public Broadcasting Service in Alexandria, VA. He welcomed those in attendance and asked each person to identify themselves . The attendance list is given in **Attachment 1**. He also thanked PBS for hosting the meeting.

2. APPROVAL OF PROPOSED AGENDA

Chairman Justus asked for consideration of the draft agenda (**Attachment 2**). Mark Eyer (Sony) requested that the report of the Specialist Group on Video be moved up in the agenda. Chairman Justus suggested moving Item 14 to between Items 6 and 7, and the change was accepted by the group. Glenn Adams (XFSI) suggested that the Specialist Group on DASE report should include a discussion of the Executive Committee copyright policy. Chairman Justus suggested adding this topic as Item 11d, and it was accepted by the group. No further changes were offered and the agenda was accepted as amended.

3. APPROVAL OF THE DRAFT MINUTES OF AUGUST 8, 2001 MEETING

Chairman Justus called member's attention to the draft Minutes of the August 8, 2001, T3 meeting. Jerry Whitaker (ATSC) stated that one editorial correction had been identified by Mike Dolan (Consultant). Bernie Lechner (Consultant) identified two additional editorial corrections. No further changes were requested and the draft Minutes were accepted as revised.

4. OPENING REMARKS

4.1 Comments by the Executive Director (Mark Richer)

Mark Richer (ATSC) reported on current activities of the ATSC in general, and T3 in particular. He welcomed all those attending, especially in light of the travel difficulties that many companies have been experiencing. He reported that the ATSC Standards Seminar, originally set for October, has been moved to February 21 and 22 in St. Louis. He thanked Andy Butler (PBS) for the support that SBE has provided for the program.

Mr. Richer addressed the pending EC action regarding the collision avoidance documents approved by T3 at its August 8 meeting (T3-548, "ATSC usage of the MPEG-2 Registration Descriptor," and T3-549, "Collision Avoidance for Private Fields and Ranges." These documents, the final output from the T3 Collision Avoidance Ad Hoc Group, provide a set of rules—which, if followed—allow the unique identification of all uses of private fields or ranges. At its August meeting, T3 voted to send the documents to the Executive Committee (EC) with a recommendation that they be accepted as Technology Group Reports. The EC is set to act next week on this issue.

Mr. Richer said that ATSC is considering the purchase of a private phone bridge next year in response to the increased cost and service concerns relating to the current service provider. He asked that any member with comments on this project to provide their input to ATSC staff.

4.2 Status of ballots

Mr. Richer outlined the status of ballot activities since the last T3 meeting in August. Specifically, regarding ballots of the ATSC membership:

- Annex A of A/53 (colorimetry): Approved; 20 yes, 0 no
- A/52 Revision: Approved; 30 yes, 0 no

Regarding ballots at the T3 level:

- T3-528R2 DASE-1 Part 1: Introduction, Architecture, and Common Facilities: Approved; 21 yes, 6 no
- T3-529R2 DASE-1 Part 2: Declarative Applications and Environment: Approved; 21 yes, 3 no
- T3-530R2 DASE-1 Part 3: Procedural Applications and Environment: Approved; 16 yes, 7 no
- T3-531R2 DASE-1 Part 4: Application Programming Interface: Approved; 20 yes, 4 no
- T3-533R0 DASE-1 Part 6: ZIP Archive Resource Format: Approved 21 yes, 2 no
- T3-534R0 DASE-1 Part 7: Security: Approved; 21 yes, 3 no
- T3-535R0 DASE-1 Part 8: Application Delivery System—ARM Bindings: Approved; 18 yes, 5 no
- T3-536R0 DASE-1 Part 9: Conformance: Approved; 17 yes, 5 no
- Trigger Standard: Approved: 15 yes, 1 no
- A/90 IP Multicast rebalot: Approved; 13 yes, 1 no

4.3 Other

5. BRIEF REPORTS ON ACTIONS FROM THE PREVIOUS MEETING

Chairman Justus observed that activities are proceeding on action items from the August 8 meeting, with follow-up reports on today's agenda from each specialist group. Additionally, Mr. Whitaker was requested to extract the action items from the August 8 meeting and list their status, and from this point forward, to include a separate list of action items from T3 meetings.

5.1 Action Items from August 8 Meeting

- a) Whitaker and Dolan to prepare an inventory of organizations referenced by ATSC Standards and Recommended Practices for consideration by the EC. *Completed*
- b) Whitaker to begin work to assess the scope of a revision to A/54 and report back to T3: *Completed; on going* (see Item 5.1.1)
- c) Eyer to serve as chair of a reactivated T3/S6 Specialist Group on Video to examine, among other things, Active Format Description. *Completed; on going* (see Item 8)
- d) Crinon to forward the document, "Delivery of IP Multicast Sessions over ATSC Data Broadcast" to ATSC staff for the issuance of a 3 week rebalot of T3. *Completed*
- e) Crinon to forward the document, "ATSC Synchronized/Asynchronous Trigger Standard" to ATSC staff for the issuance of a 6 week ballot of T3. *Completed*
- f) Crinon to poll the membership of T3/S13 regarding "ATSC Synchronized/Asynchronous Trigger Standard" implementation concerns, if any, and to report back to T3 as appropriate. *Completed* (see Item 9.2)
- g) Crinon to move forward on cooperative efforts with SCTE relating to data broadcasting as appropriate. *Completed; on going* (see Item 9.5)

- h) Shah to ensure that T3/S14A and T3/S6 coordinate their work on Active Format Descriptors. *Completed; on going* (see Item 10.2)
- i) Lechner to provided a status report on the review of ATSC Standards A/55, A/56, A/58, and Annex C to A/53 at next T3 meeting. *Completed, on going* (see Item7.1)
- j) Lechner to forward “Amendment 2 to A/65A” to ATSC staff for the issuance of a 6 week ballot of T3. *Completed*
- k) Lechner to present Revision 6 of the proposed Redistribution Control Descriptor to T3/S8 for further consideration, with the goal of reaching consensus on this or a later revision of the document for ballot consideration by T3 at its next scheduled meeting. *Completed* (see Item 7.4)
- l) Adams to forward DASE documents Parts 1–4 (T3-528R2 DASE-1 Part 1: Introduction, Architecture, and Common Facilities; T3-529R2 DASE-1 Part 2: Declarative Applications and Environment; T3-530R2 DASE-1 Part 3: Procedural Applications and Environment; and T3-531R2 DASE-1 Part 4: Application Programming Interface) to ATSC staff for the purpose of issuance of a T3 rebalot. *Completed* (see Item 12.1)
- m) Adams to forward DASE documents Parts 6–9 (T3-533R0 DASE-1 Part 6: ZIP Archive Resource Format; T3-534R0 DASE-1 Part 7: Security; T3-535R0 DASE-1 Part 8: Application Delivery System—ARM Bindings; T3-536R0 DASE-1 Part 9: Conformance) to ATSC staff for the purpose of issuance of a T3 ballot. *Completed* (see Item 12.1)
- n) Adams to refer DASE Part 5 back to T3/S17 with instructions to revise Part 5 to reference the applicable ISO standard and include the constraints and clarifications that they feel are appropriate. *Completed*
- o) Adams and T3/S17 to review its scope of work and report back at the next T3 meeting with recommendations on moving forward. *Completed* (see Item 12.3)
- p) Chernock to provide documents T3-548 and T3-549 to ATSC staff for consideration by the Executive Committee as Technology Group Reports. *Completed* (see Item 4.1)

5.1.1 Revision of A/54 (Jerry Whitaker)

Mr. Whitaker reported on the project identified at the last T3 meeting to revise ATSC standard A/54. It was agreed that Mr. Whitaker would serve as editor of the document, and that he would solicit feedback from the specialist group chairs and other selected individuals to gauge the scope of the effort. He reported that all specialist group chairs had been contacted and their feedback was currently being assessed. It is assumed that considerable work on the A/54 revision will reside in T3/S6, T3/S8, and T3/S9. The plan at this point is to preserve the basic structure of A/54 and to not expand the document beyond its present scope. The new document will serve as an Implementation Guideline for A/53B.

Mr. Whitaker said he expects to have a draft work plan for consideration at the next T3 meeting.

6. NEW WORK ITEMS FOR DISCUSSION

6.1 Assigned by Executive Committee

There were none.

6.2 Implementation Subcommittee (Art Allison)

There were none.

6.3 Other

Mr. Richer commented on some of the likely outcomes of the work of T3/S9, namely new operating modes. He said that other specialist groups, such as T3/S6 and T3/S8, should begin studying the potential impacts of such changes to the digital television transmission standard. Mr. Allison and Mr. Lechner agreed. John Tollefson (PBS), chair of T3/S9, said the changes being discussed in the specialist group are not expected to have a significant impact on the work of other groups, but that such issues still need to be addressed. Mr. Richer suggested, for example, that the ramifications of introducing a robust bit stream to the DTV system should be examined by T3/S8. Chairman Justus agreed, but urged that other specialist groups not expend effort on proposals that might ultimately be discarded.

7. REPORT OF THE SPECIALIST, GROUP ON DATA MULTIPLEX/TRANSPORT, T3/S8 (Bernie Lechner)

T3/S8 chairman Bernie Lechner briefed the committee on specific activities in his specialist group.

7.1 Review of A/56, A/58, Annex C to A/53 and Transport sections of A/54

Mr. Lechner said the review of A/56 has not yet started in SCTE, which has agreed to undertake the task. Regarding A/58, the document is being reviewed in Mike Isnardi's Code Points Ad Hoc Group and in Mark Eyer's PSIP Ad Hoc Group. The review of Annex C to A/53 is now on the agenda of the PSIP Ad Hoc Group as well, and work will begin with a meeting later this month.

7.2 Status of work on Content Identification and replacement of A/57

Mr. Lechner said this work continues, with two sets of meetings underway: first, coordinating ISAN with international bodies; and second, clearly defining metadata carriage for ATSC standards. Rich Chernock (IBM) observed that there are various types of metadata, and that clear definitions are required.

7.3 Status of work on Advanced EPG Functionality

Mr. Lechner reported that work on advanced EPG functionality had been slowed during the summer due to vacations, but that the work was beginning to pick up again on this project. He said one of the key individuals involved in coordination with the TV Anytime Forum specification had left his sponsoring company (Sony), which could slow the process. Skip Pizzi, who serves as the liaison with TV Anytime, was asked by Chairman Justus to follow up and ensure that progress continues to be made.

7.4 Proposed Amendment to A/65A to add a Redistribution Control Descriptor

Mr. Lechner outlined the history of this issue. In an earlier version, the Redistribution Control Descriptor was discussed at the August 8 T3 meeting. At that meeting, the committee could not reach agreement on moving the document to a ballot of T3. Instead, it was returned to T3/S8 for further consideration leading to a consensus on the part of the specialist group to request a T3 ballot at this meeting. Mr. Lechner reported that T3/S8 had reached consensus on the document, now in Revision 12 (T3S8-437r12, **Attachment 3**). He went on to explain the changes integrated in to the new version and, on behalf of T3/S8, **moved** that T3S8-437r12 be sent to a six week ballot of T3. **Second** by Mr. Eyer. Discussion of the motion followed.

Jeffrey Krauss (NCTA) suggested an editorial change to the document to clarify the intended meaning (**Attachment 4**). The change would affect cable transport streams, and would clarify that the descriptor will occur in the EIT if and only if the EIT is carried.

Chairman Justus observed that this issue had been before T3 two previous times and that was important to resolve it. He said the committee should discuss the proposed changes and arrive at a final wording that everyone can live with.

Mr. Kraus outlined the reasons for his proposal, and the group made certain changes, which are reflected in the attachment. With the revised wording, Mr. Kraus's suggestion was offered as a friendly amendment to the motion on the table, which was accepted by Mr. Lechner.

Regis Crinon (Intel) observed that the T3 meeting was not the proper place for making such changes; he said this work should reside within the specialist group. Adam Goldberg (Sharp) echoed that sentiment.

Mr. Goldberg went on to offer simplified wording for Section 6.7.11, to remove from the first sentence, "that are not transmitted using the ATSC A/70 Conditional Access System." Discussion followed on the relative merits of this change. Mr. Justus asked Mr. Lechner if he would accept the proposed change. He agreed.

Mr. Crinon said he was uncomfortable with the vagueness of the proposed document, specifically what does "redistribution" really mean? In speaking against the motion, he said there are too many undefined terms in the document. Pat Griffis (Microsoft) also suggested that the changes proposed should be referred back to T3/S8.

Chairman Justus said that these points were well taken, however, he argued that it was important to move forward and decide the issue today.

Chairman Justus called the question. The motion was **approved** on a voice vote.

7.5 Work on Code Point Issues

Mr. Lechner reported that the Ad Hoc Group on Code Point Issues, chaired by Michael Isnardi (Sarnoff) was in the process of producing a final report on its work. He went on to outline the group's plans for moving forward, a major component of which is close liaison with SCTE. Mr. Richer said he will work with Mr. Lechner on strengthening the liaison effort. Mr. Isnardi indicated he expected the final report of the group to be completed by the end of October.

7.6 PSIP Implementation Guidelines for Broadcasters and Receiver Manufacturers

Mr. Lechner called members' attention to a draft Recommended Practice on PSIP (**Attachment 5**), developed by the Ad Hoc Group chaired by Warner Johnston (ABC). He said the draft document is being provided to attendees at the IEEE Broadcast Symposium session on PSIP to be held later today. Mr. Lechner outlined for process for moving forward with this document, which hopefully will be ready for ballot at the next T3 meeting.

Mr. Lecher reported that work continues on the complementary receiver PSIP Recommended Practice being developed by CEA.

7.7 Directed Channel Change

Mr. Lechner briefed the committee on certain issues surrounding the DCC amendment that was recently approved by the ATSC membership. Mr. Lechner said he was asked by Mr. Richer to work with him to integrate editorial comments. He also reported that an ad hoc group chaired by Merrill Weiss (Tribune) was being formed to study the substantive comments received during balloting, and to formulate a plan for moving forward with a possible amendment.

8. REPORT OF THE SPECIALISTS GROUP ON VIDEO, T3/S6 (Mark Eyer)

8.1 Status

Mark Eyer (Sony) reported on the first meeting of the newly-reactivated T3/S6 specialist group. He said the group has enjoyed good participation in its early efforts. Current work involves considering the DVB Active Format Description (ADF) specification and how this data could be carried in the ATSC data structure. He reported good progress on this issue, with several teleconferences planned over the next two months.

Mr. Allison suggested the need for a formal liaison with CEA to coordinate work relating to active format description. Mr. Eyer said he was aware of the CEA work and intends to stay in close contact with the organization's efforts.

9. REPORT OF THE SPECIALIST GROUP ON DATA BROADCAST, T3/S13 (Regis Crinon)

Regis Crinon reported on the recent work of T3/S13 (**Attachment 6**). Specific items are covered in the following sections.

9.1 IP Multicast: results of second ballot

As reported under agenda item 4.2, the draft IP Multicast standard was approved, with editorial privilege, in a rebalot by T3. Mr. Crinon said the comments received were being evaluated, but that many of them appear to be editorial in nature. Chairman Justus directed Mr. Crinon to work with Mr. Richer and himself regarding disposition of the comments with the goal of moving the document to a ballot of the ATSC membership.

9.2 Data Synchronization: results of ballot

As reported previously, the T3 ballot on the draft Synchronized/Asynchronous Trigger Standard was approved with editorial privilege on September 27. Mr. Crinon reported that seven sets of comments were received. Chairman Justus directed Mr. Crinon to work with Mr. Richer and himself on disposition of the comments.

9.3 Transport Stream File System: activity report

Mr. Crinon reported on the status of document S13-160, which is still under review in the specialist group. He said that among the specialist group objectives is to maintain a high level of compatibility with DVB. Mr. Crinon said that three teleconferences have been held, with good progress being made.

9.4 A/90 Corrigendum

Mr. Crinon reported that a corrigendum is being considered to the A/90 Data Broadcast Standard. He said conflicts of table_type values between ATSC A/90 and DVS 234 have been identified. The primary issue involves the use of Data Event Tables in the two standards.

9.5 Communication to SCTE

Mr. Crinon identified cooperation with SCTE as an important area of ongoing and future work. He said the SCTE DVS chairman has invited T3/S13 to make a presentation on A/90 at an upcoming meeting. Mr. Crinon said he would keep T3 apprised of the progress of these liaison efforts.

The meeting broke for lunch at 11:45 a.m. Chairman Justus reconvened the meeting at 12:40 p.m.

10. REPORT OF THE SPECIALIST GROUP ON SATELLITE BROADCAST, T3/S14A (Dipak Shah)

Dipak Shah (DIRECTV) reviewed the recent work of T3/S14A (**Attachment 7**).

10.1 Review of Past Meeting Progress

The 16th meeting of T3/S14A was held at Motorola, San Diego, on August 23. The specialist group reviewed and completed the draft audio specification (Section 5.1), and reviewed and completed the draft video specification (Section 5.2). Agreement was also reached on the transport specification (Section 5.3).

Regarding Section 5.3, Richard Chernock (IBM) asked if the ATSC registration descriptor was included, and Mr. Shah said that it was. Mr. Chernock noted that there may be some conflict with two such descriptors. Sam Narasimhan (Motorola) commented that there was a distinction between these descriptors, and Mr. Shah concluded that this would be examined and resolved. Mr. Allison asked about the relationship to a constraint in A/90 regarding streaming video, and Mr. Shah noted this issue for examination as well.

10.2 Review of Completed Preliminary Work

Mr. Shah reviewed the progress made on certain key issues and answered questions relating to the work of the specialist group. He also solicited input on the issue of “commercial killers,” and promised more specific output from T3/S14A on this point by the next T3 meeting. He concluded with a discussion of identification of ATSC and non-ATSC content within a multitransport program stream, with respect to Document T3/S8-411. Mr. Chernock suggested that T3-548 and T3-549 be referenced instead, because they included minor changes from the T3/S8 document.

10.3 Future Meeting Plans and Issues

The next meeting of T3/S14A is scheduled for October 19 at Motorola in San Diego. Tentative agenda topics include: 1) review and complete Sections 5.1 Audio and 5.2 Video; and 2) continue discussions on Sections 5.3 Transport and 5.4 PSIP. Mr. Shah encouraged any members with detailed knowledge of PSIP to assist in the work of drafting Section 5.4

11. REPORT OF THE SPECIALIST GROUP ON RF TRANSMISSION, T3/S9 (John Tollefson)

John Tollefson reported on activities within the T3/S9 VSB enhancement specialist group (**Attachment 8**).

11.1 Status of Responses to RFP

Mr. Tollefson reported that NxtWave/Zenith, Philips, Broadcom, Oren, and Merrill Weiss Group have responded to the T3/S9 RFP on improved RF systems for ATSC transmission, and briefly summarized each submission. The Merrill Weiss group will develop a proposal for a separate standard.

11.2 Hardware Requirement

Mr. Tollefson said that all respondents will submit hardware for testing, which is due to begin on November 15.

11.3 Laboratory Test Plan

Mr. Tollefson reported that a lab test plan for evaluating submissions has been approved, and that prospective testing entities will be asked to submit detailed proposals to be evaluated against this plan, which he briefly described. Mr. Krauss asked what these “testing entities” might be, to which Mr. Tollefson responded that they would likely include established labs, and that several organizations had already expressed tentative interest. Mr. Goldberg asked about the funding for this effort, and Mr. Tollefson replied that it would not be funded by ATSC, noting that testing entities would provide or raise their own funds to support this work. Mr. Richer added that MSTV, ATTC, and CRC have expressed interest in providing support for these tests.

11.4 Field Test Plan

Mr. Tollefson continued with a description of the field testing plan. Brian Smith (Philips) asked if backward compatibility would be included in the tests, and Mr. Tollefson responded affirmatively. Mr. Allison clarified that compatibility issues are scheduled for the lab tests, but not currently in the field tests. He added that this would only be done to the extent that the testing entity was willing to do so and to the extent that funds were available. Ren McMann (CBS) asked how a decision could be made without a guarantee of such information being included. Mr. Richer and Mr. Tollefson said this concern was likely unwarranted because the compatibility issue is clearly important to everyone involved. Mr. Smith returned to the question of compatibility in lab vs. field tests, and Mr. Tollefson again assured the group that although there is some flexibility on this, there should be adequate consideration of compatibility throughout the testing process. Chairman Justus probed this relationship further, and Mr. Tollefson stressed that lab tests will begin very soon, with field tests following as soon as possible. Mr. Krauss asked if standard and advanced systems might be tested by different entities. Mr. Tollefson replied that this was undetermined at this time. Mr. McMann commented that if competing systems are tested, care should be taken that the testing entities are impartial. Mr. Tollefson concurred, noting that T3/S9 reserved the right to place an observer at all tests.

11.5 Invitation to Test

Mr. Tollefson continued by noting that a Request for Evaluation (RFE) document had been accepted by T3/S9, which includes lab and field test plans plus the draft revised A/53 standard. Mr. Allison commented that this should not be made publicly available but only released under ATSC non-disclosure rules, expressing concern regarding possible negative reaction to the document in its current form. Mr. Richer noted that when T3/S9 had agreed to the composition of the RFE, they had expected the draft revised standard would be at a further stage of completion than it is now. He suggested that perhaps the draft standard be removed from the document and only made available upon request and under NDA. Chairman Justus asked why the standard is included in the first place. Mr. Tollefson felt that this draft A/53 revision was needed by any proponent, and that distribution was expected to be limited to those proponents—i.e., not widely published. Mr. Richer provided some background on the usual ATSC and industry process in this regard.

11.6 Revised Work Plan

Mr. Tollefson reported that it has been necessary to revisit the T3/S9 Work Plan. Key dates include the following:

- 10/12/01 – Issue Request for Evaluation
- 10/30/01 – Letters of Intent due
- 11/15/01 – Hardware and Test Procedures due

- 4/30/02 – Evaluation Reports due
- 5/14/02 – T3/S9 Review Evaluation Reports
- 5/30/02 – Adoption of Standard or Revision to A/53 by T3/S9

Mr. Allison reiterated his concern about leaving the release of a draft A/53 revision up to T3/S9. Mr. Richer commented that existing ATSC rules allow specialist groups to release such information, and that T3 should consider this practice and precedent in any action that T3 might now take. Mr. Allison **moved** that T3 strongly recommend to T3/S9 to obtain agreement from candidate testing organizations to comply with ATSC NDA policies before releasing an A/53 draft revision. **Second** by Mr. Smith. Mr. Tollefson commented that regardless of the motion, T3/S9 intended to comply with such advice. The motion was **approved** on a voice vote.

12. REPORT OF THE SPECIALIST GROUP ON DASE, T3/S17 (Glenn Adams)

Glenn Adams, T3/S17 chair, reported on the work underway in T3/S17, specific elements of which are covered in the following agenda items.

12.1 DASE-1 ballot results

Mr. Adams noted that the recent DASE ballot appeared to have passed, but that some comments would require resolution, and with T3's permission, T3/S17 would draft a document to discussing resolution of these comments. Included in this review would be several outstanding comments from the previous ballot round, referring to the requirement in Part 3 of the DASE specification for a click-through license from Sun Microsystems. Mr. Adams also noted comments from some consumer electronics manufacturers regarding multiple profiles. Noting that comment resolution is officially the domain of T3, Mr. Adams asked that T3/S17 be empowered by T3 to draft resolution to these comments. Mr. Crinon asked for clarification on the proposed process, and Mr. Adams asked to defer this discussion until his request had been resolved. Mr. Richer said that he had reviewed the ballot comments and found that some concerned intellectual property rights (IPR) matters, which will be resolved in a separate undertaking. Robert Graves (ATSC) asked for a characterization of the numerical ballot result, to which Mr. Richer responded that considering all of the multiple votes involved, approximately 2/3 approval had been recorded. He added that comments were quite divergent, however, and that universal resolution would be difficult to achieve. He reminded the group that the comment resolution process called for a good faith effort to be made toward resolution of comments, but that it need not extend to the ultimate satisfaction of all commenters. Mr. Goldberg asked if this hadn't already happened in a previous round of comments, and Mr. Richer disagreed, distinguishing and clarifying the previous and current processes.

Mr. Allison proposed that a comment resolution group of T3 be formed, rather than T3/S17 itself, although he said Mr. Adams might be an appropriate chair. Mr. Allison felt this issue should be settled now, after which the issue of profiling should be addressed (at this meeting). Mr. Krauss commented that there were no documents before T3 regarding the profiling issue, and he therefore felt inadequately briefed to make any decision at this meeting. Mr. Adams asked that the issues be taken in the order on the agenda, as Mr. Allison had noted, so that the profiling issue be deferred momentarily until the comment resolution process was settled. He proposed again that T3/S17 make a first pass at comment resolution, in which issues of policy would be deferred to T3 for resolution, while technical and editorial comments could be handled unilaterally by T3/S17. Mr. Griffis felt this was covered by standard ATSC practice, and that T3/S17 should draft comment resolutions for review by T3. He also recalled that Mr. Richer had earlier stated that the DASE specification would not proceed to ATSC membership ballot until fully completed and approved by T3. Mr. Smith asked about the process for resolving

contentious comments. Mr. Richer explained that each of the comments are to be addressed, and that T3 may or may not agree to change the specification in response; in some contentious cases, a vote may be called. Mr. Allison again supported the value of a separate comment resolution body, with that work as its sole charter, rather than asking the specialist group to handle such a task along with its other work. Mr. Lechner proposed that T3 delegate this comment resolution to T3/S17 except for contentious issues, which are already identified, and that those be handled by T3.

Chairman Justus observed consensus on the part of T3 that T3/S17 form a comment resolution group to draft resolution of all ballot comments possible, and to report back to T3 at its December meeting on progress made.

12.2 Resolving “Noted” comments from February ballot, specifically comment requesting profile without procedural application environment

Mr. Adams then reviewed the existing comment resolution process, referring briefly to Mr. Goldberg’s earlier question. He felt that these earlier decisions were now moot, and had no real value to be applied to current actions. He also noted the need for working implementations, then moved to the discussion of receiver profiles, noting that T3/S17 was currently developing a review of background on this matter in as objective a manner as possible, to present pros and cons for consideration by T3.

Chairman Justus interrupted to place a limit of one hour and 15 minutes on the discussion of this item, to which the group concurred. Returning to the discussion, Mr. Allison felt that this issue had already been resolved, and to believe otherwise required revisiting past decisions. He added that DASE Level 1 should have only a single profile, particularly since it had no backchannel. To further fragment the specification would kill it, he felt. Mr. Adams replied that the background paper T3/S17 was developing might shed further light on this and should be allowed to proceed. Mr. Goldberg felt that the comment resolution process had happened, and it should be considered complete, without universal satisfaction, and the documents should move forward. Mr. Krauss felt there was insufficient notice that this would be considered and decided at today’s meeting, given the agenda. He believed either the discussion should be deferred or else Mr. Goldberg’s approach should be taken. Mr. Griffis noted that T3/S17 had been interrupted in its work due to the tragic events of September 11, but that it should be allowed to complete this review in a timely fashion. Mr. Adams noted that T3 had never fully discussed this issue. Mr. Weiss asked that any T3/S17 document be prepared well ahead of the next meeting, allowing sufficient time for review by T3. Mr. Allison commented that anything other than a Minority Report approach was a violation of process, and that T3 should not be asked to revisit a decision that had failed on two ballots. Mr. Smith added that this appeared to be a business decision, and it was inappropriate to expect a technical specialist group to resolve it.

Chairman Justus agreed that there was a high burden on those who would overturn two ballots, proposing that this issue could be considered already decided. Alternatively, he noted that T3 could decide to extend the matter for further review under the comment resolution process. Thirdly, he cited the proposal for a backgrounder, which T3 could wait to review before closing the issue. He concluded with his feeling that the matter had been settled, and opened the floor for discussion (10 minutes).

Mr. Adams responded that this approach was tantamount to dismissing with the comment resolution process. He felt it was important to try to engage as broad a consensus as possible. Mr. Goldberg felt that tactical discussions of the balloting process were appropriate here, but that no amount of further technical analysis would resolve the issue on the table. He felt that comment resolution should be pursued to correct errors and technical problems with the documents, but

otherwise he agreed with Chairman Justus's conclusions. Mr. Crinon agreed with the previous comments that the profiling discussion was essentially a business issue, and noted that other similar revisiting based on changing business needs might arise in the future (subsetting of A/90, for example). He was unsure in whose hands such decisions would appropriately reside, however. Mr. Griffis felt that the T3/S17 examination currently underway would be helpful to T3's understanding of this rapidly changing environment, and argued that it should be allowed to proceed. Wendy Aylsworth (Warner Bros.) expressed her agreement with all of the previous discussion points, feeling that perhaps that there should be some compromise possible. She repeated Mr. Adams' earlier call for working implementations of DASE before moving forward, which she felt had been forgotten in the current discussion.

Mr. Richer concluded the discussion by noting that the documents had been approved in T3 balloting, and that a Minority Report can be presented at the next T3 meeting to advise the group on a final decision on the profiling issue. Even if T3 agrees to affirm the existing ballots, however, a Minority Report can accompany the T3/S17 specification when distributed for membership ballot. Chairman Justus felt even stronger that such a decision could be made at this meeting. He suggested that the group vote on whether the current approach of a single profile should stand. Mr. DePriest felt that Mr. Richer's approach was preferred.

Chairman Justus took a straw poll to obtain a sense of the group. A show of hands presented a majority in favor of moving DASE forward at this meeting. Mr. Griffis called a point of process over his concern that not all voters may be ATSC members. The group discussed proper process, and Mr. Graves advised T3 to settle this matter clearly at this time.

Mr. Goldberg **moved** that T3 declare that the ballot comments regarding DASE profiling to have been resolved. **Second** by Joe Rodolico (Panasonic). Mr. Griffis felt that the motion was out of order since the comments had not yet been discussed. Mr. Weiss expressed his remaining ambivalence regarding DASE profiling, but felt clearly that this process of comment resolution was flawed, in that the comments should be presented to the specialist group for their reaction. Mr. Richer acknowledged that the proposed motion was proper process, but advised against the action, recommending instead that T3 ask those with the minority view to present their feelings at the next meeting. Mr. Smith pointed out that such activity could continue even if the group voted in favor of the motion on the table. Chairman Justus called the question, and a roll call vote was taken, which resulted in 13 yes, 12 no and 9 abstentions. The motion was **approved**.

12.3 T3/S17 charter review

Mr. Adams presented a draft of a revised charter for T3/S17 (**Attachment 9**). In response to a question from Chairman Justus regarding the specific changes from the group's preceding charter, Mr. Adams noted that this was a complete rewrite. Chairman Justus asked whether this document had been available for review for an adequate period, which several members verified that it had (having been posted along with other documents for this meeting by Mr. Whitaker on September 28). A language change was proposed by Mr. Allison, and agreed to by Mr. Adams. Chairman Justus observed consensus of T3 that the revised language was acceptable and directed that it become T3/S17's new charter.

12.4 EC Copyright policy re: DASE

Mr. Adams noted that the DASE specification normatively references certain organizations' documents, which may require approval by ATSC, according to current ATSC Copyright Policy. Mr. Allison **moved** that any ATSC documents that deviate from the preferred policy provide a statement regarding the unavailability of reasonable options, thereby justifying exception to ATSC's Copyright Policy. Specific reference was made to Sun Microsystems' Java technology.

Second by Mr. Smith. Mr. Griffis noted that the ATSC Copyright Policy is still under discussion by the ATSC EC, and suggested this motion was therefore premature. He added that there may be references to organizations besides those already identified (i.e., Sun), and so a complete list should be provided and each reviewed. He also suggested that these organizations be given the opportunity to voluntarily change their policy to conform with ATSC preferences, such as the HAVi Consortium has done. He concluded that only after these steps have been taken would such a motion be in order. Chairman Justus asked Mr. Richer for a status report on the ATSC Copyright Policy. Mr. Richer replied that the ATSC Executive Committee had approved the draft Copyright Policy subject to legal review, which is currently ongoing, and added that the EC at its meeting next week will review changes proposed by ATSC counsel. He expected that these revisions will be accepted, and an initial list of referenced organizations will then be approved. He suggested that T3 subsequently review any referenced organizations and determine if such exceptions are required. Mr. Krauss added that the finding had not yet been made that Sun did not conform; he said the motion should be amended with the addition of an “if necessary” clause.

Following some discussion, and with the with the concurrence of Mr. Allison, the **motion** was amended to the following:

“There are no reasonable and timely alternative technological approaches to Sun Microsystems’ Java technology that may be accessed in accordance with the draft ATSC Copyright Reference Policy. Therefore, if necessary, the EC should make an exception to Copyright Reference Policy for the Java technology.”

Discussion continued on the amended motion. Mr. Adams asked where due diligence had been taken to determine that no alternative technologies existed. Mr. Griffis concurred with this question, and repeated the notion that this was out of order due to upcoming consideration of the Copyright Policy by the EC. Jon Courtney (Sun Microsystems) replied that T3/S17’s work on the DASE specification for three years had provided ample due diligence for such a claim.

Chairman Justus called the question, and a roll call vote was taken. Result: 15 yes, 5 no, 11 abstentions. The motion was **approved**.

Mr. Richer then presented his view that T3 adopt an action plan with a timetable for moving the DASE specification forward. To wit, the T3 decision on DASE not moving forward to membership ballot until it is demonstrated to be implementable still stands and currently prevents DASE from proceeding. Mr. Roderico asked if there was ATSC policy that required working implementations before final approval. Mr. Richer replied that there currently was not such a blanket rule (although it may be adopted in future consideration of the proposed Candidate Standard document status), but that a specific requirement had been applied by T3 on the DASE documents.

Mr. Allison felt that the bar had not been set very high by T3 on this issue, and he felt there was some evidence of DASE implementations now surfacing. He recommended that the interoperability of these implementations should be probed and reported. Mr. Adams commented that little in DASE is new and unproven, and it is in fact a subset of many existing products and systems. He contrasted it to A/90, with the latter serving as an example of something unique and not yet proven. Mr. Adams **moved** that the issue of implementation had been resolved and that DASE should be considered implementable. The motion was **seconded**.

Mr. Allison suggested an amendment that would state T3 has found to its satisfaction that the implementation constraint could be removed, restating the motion as follows:

“T3 has adequate evidence of DASE’s ability to be implemented, and should allow the DASE specification to move forward.”

The amendment was accepted by Mr. Adams.

Mr. Krauss noted that there was no notice of this decision, and no evidence presented in support of the contention. He asked for such evidence and notice of decision to be made for the next meeting. John Henderson (Hitachi) agreed. Greg DePriest (Toshiba) contrasted ATSC's process to CableLabs' approach of rigorously testing proposed technologies itself, and felt that ATSC is presenting itself with an untenable constraint in this case since it cannot prove the implementability of its own specification. Mr. Graves commented that Mr. Adams' earlier comments provided adequate assurance.

Chairman Justus called the question. It was **approved** it by a show of hands.

Chairman Justus then thanked Mr. Adams for a stimulating discussion, and closed the topic.

13. REPORT OF ARM, T3/S18 (Mike Dolan)

Mike Dolan, T3/S18 chair, reported on the work completed to date in the Application Reference Model specialist group (**Attachment 10**).

13.1 Status

Mr. Dolan briefed the committee on the following accomplishments within T3/S18:

- Transport Event Model simplified
- Broadcaster Policy Details finalized
- Appld Semantics deferred
- Profile and Level Semantics agreed to

Mr. Dolan went on to brief the committee on the specialist group's draft document, "ATSC Data Applications Reference Model." He characterized the document as "glue" between A/90 and DASE (and thus between T3/S13 and T3/S17). He said the draft standard provides the "next layer" for an application environment (DASE) to build upon, adding that it extends and constrains A/65 and A/90.

Regarding document status, Mr. Dolan reported that Rev. 7 was distributed to the T3 reflector (**Attachment 11**). He added that Rev. 8 is functionally complete and that Rev. 9 is undergoing editorial cleanup and should be available within 2 weeks of this date.

Mr. Dolan reported the consensus of T3/S18 to recommend to T3 that the document, in a cleaned Rev. 9 version, be approved for a T3 letter ballot. The specialist group furthermore recommended formal communication to CEA that it develop a receiver model specifically to address PSI management (A/65 and A/90 tables and descriptors).

He noted that there are no open technical issues in the specialist group, and the document is close to a final editorial state. He briefly explained the resource naming process and listed the broadcaster policy options offered.

Mr. Allison **moved** to accept S18-001r9 to move to a 6-week T3 letter ballot. **Second** by Andy Butler (PBS). There was no further discussion, and the motion was **approved** by voice vote.

Mr. Allison **moved** that T3 communicate to CEA that it should develop a receiver model specifically to address PSI management (i.e., A/65 and A/90 tables and descriptors). **Second** by Mr. Chernock. The motion was **approved** by voice vote. Chairman Justus asked Mr. Dolan to draft an official communication to CEA reflecting this motion, and he agreed to do so.

Mr. Dolan concluded the report with his expectation to submit the final T3/S18 document to ATSC staff within two weeks.

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

Rich Chernock, T3/S16 chair, reported on recent work of the specialist group on Transactional Services (**Attachment 12**).

14.1 Status

Mr. Chernock reported that T3/S16 has been examining the infrastructure that the DVB Network Independent Protocols for Interactive Services was built upon, comparing this framework to the available standards in ATSC and OCAP. The major components are support for Object Carousel and IP carriage. ATSC supports Object Carousel through the Transport Stream File System standard being drafted in T3/S13. IP support on the broadcast channel comes from A/90 and the IP Multicast draft standard. He reported consensus within T3/S16 that while there are differences between the ATSC/OCAP support for Object Carousel and IP carriage, the differences are not major.

Current activity in T3/S16 is focused on refining the comparisons and beginning to work on what is necessary to “port” the DVB NIP standard to the ATSC and OCAP framework.

14.2 Requirements

Mr. Chernock reported that the T3/S16 requirements document (**Attachment B**) has been finalized, incorporating input received at the last T3 meeting.

14.3 Work Plan

Mr. Chernock outlined the Work Plan for T3/S16. Chairman Justus thanked Mr. Chernock and his group for their efforts.

15. LIAISON REPORTS

15.1 MPEG (Regis Crinon)

Note: This item was not discussed at the meeting due to time limitations, but was provided by Mr. Crinon after the meeting and is included in these Minutes for the sake of completeness.

15.1.1 Amendment 3 to MPEG-2 DSM-CC

Amendment 3 to DSM-CC, entitled “Transport Buffer Model in Support of Synchronized User-to-Network Download Protocol” was published on August 15, 2001. The purpose of this amendment is to specify a delivery buffer model for the synchronized download protocol, the fundamental mechanism used in the ATSC Data Synchronization draft specification.

15.1.2 MPEG-7 over MPEG-2

U.S. National Body has reviewed the Final Proposed Draft Amendment produced at the last MPEG meeting. Several “Major Technical” issues were uncovered and will be communicated to MPEG this coming December.

15.2 Metadata (Rich Chernock)

Mr. Chernock asked whether T3 felt it was worthwhile to examine the metadata issue. Mr. Allison felt there is no current ATSC singular way of presenting such information, although there are several small, isolated approaches in various areas of the specifications. He recommended that a coherent effort be developed. Mr. Weiss agreed. Chairman Justus asked the group for a proposed course of action. Mr. Lechner suggested a white paper for T3 to help

inform the group on this effort. Mr. Chernock was asked to develop such a paper with assistance from Mr. Lechner and Mr. Weiss.

15.3 ITU (Rich Chernock)

(Note: This liaison report was not delivered verbally at the meeting because of time limitations. It was posted to the T3 reflector by Mr. Chernock, however, and is included here for completeness.)

Mr. Chernock reported on the results of the meeting of ITU-R WP6M in September; he co-chairs SRG-1 on data broadcast harmonization with Nobiyuki Nagi of NHK, Japan. The EBU has not nominated a co-chair yet. The scope of this special rapporteur group is to harmonize data broadcast to facilitate the international exchange of multimedia content. It was agreed that the work will proceed according to the following questions (agreed upon questions are the way things operate in ITU):

- 1) What encapsulation mechanisms should be recommended for packaging and encoding data for emission?
- 2) What synchronization and timing control mechanisms should be recommended for attractive presentation of data components and time-critical components?
- 3) What signaling mechanisms should be recommended to discover the presence of data in an emission transport stream to be captured?
- 4) What announcement mechanisms should be recommended to notify the receiver of the schedule of data broadcast to be transmitted in advance to the receiver?
- 5) What transport buffer models should be defined to allow a receiver to be able to deal with the data flow?

Mr. Chernock reported that, as a starting point, a partially complete draft high-level survey of the available data broadcast standards has been created. This survey is admittedly ATSC centric, but will be filled out by experts in the other standards.

16. OTHER BUSINESS

There was no other business.

16.1 Schedule of Upcoming T3 Meetings

The next meeting of the Technology Group on Distribution will be held on December 5, 2001, at the headquarters of the National Association of Broadcasters in Washington, D.C.

A schedule for 2002 was proposed as follows: February 13, April 17, June 19, August 14, October 10, and December 4. The group agreed to this schedule.

17. ADJOURNMENT

There being no further business before T3, Chairman Justus adjourned the meeting at 4:05 p.m.

Summary of Action Items

The following action items resulted from the T3 meeting of October 3, 2001.

- a) Richer to present to the EC the collision avoidance documents approved by T3 at its August 8 meeting (T3-548, "ATSC usage of the MPEG-2 Registration Descriptor," and T3-549, "Collision Avoidance for Private Fields and Ranges." These documents, the final output from the T3 Collision Avoidance Ad Hoc Group, provide a set of rules—which, if followed—allow the unique identification of all uses of private fields or ranges. At its August meeting, T3 voted to send the documents to the Executive Committee (EC) with a recommendation that they be accepted as Technology Group Reports.
- b) Whitaker to extract the action items from the August 8 meeting and list their status, and from this point forward, to include a separate list of action items from T3 meetings.
- c) Whitaker to prepare a work plan for revising ATSC standard A/54 for consideration at the next T3 meeting.
- d) Pizzi to communicate with the TV Anytime Forum regarding ATSC work on advanced EPG functionality to ensure that progress continues to be made on this T3/S8 effort.
- e) Lechner to forward to ATSC staff T3S8-437, as amended at the October 3 T3 meeting, for the purpose of issuing a six week ballot of T3.
- f) Lechner and T3/S8 to continue work on the draft Recommended Practice on PSIP with the goal of having the document ready for ballot at the December 5 T3 meeting.
- g) Weiss to serve a chair of an ad hoc group to study certain issues surrounding the DCC amendment that was recently approved by the ATSC membership, with the goal of formulating a plan for moving forward with a possible amendment to the document.
- h) Eyer to maintain liaison with CEA regarding the ongoing work of T3/S6, specifically with regard to Active Format Description (ADF) issues.
- i) Crinon to work with Justus and Richer regarding disposition of comments received during the T3 rebalot of the draft IP Multicast Standard with the goal of moving the document to a ballot of the ATSC membership
- j) Crinon to work with Justus and Richer regarding disposition of comments received during the T3 ballot on the draft Synchronized/Asynchronous Trigger Standard.
- k) Tollefson report to T3/S9 the following approved motion: "T3 strongly recommends to T3/S9 to obtain agreements from candidate testing organizations to comply with ATSC NDA policies before releasing an A/53 draft revision."
- l) Adams to form a T3/S17 DASE comment resolution group to draft resolution of all ballot comments possible, and report back to T3 at its December meeting on progress made.
- m) Richer to report to the EC the approval of the following T3 motion relating to DASE: "There are no reasonable and timely alternative technological approaches to Sun Microsystems' Java technology that may be accessed in accordance with the draft ATSC Copyright Reference Policy. Therefore, if necessary, the EC should make an exception to Copyright Reference Policy for the Java technology."
- n) Adams to report to T3/S17 the following decision of T3: "T3 has adequate evidence of DASE's ability to be implemented, and should allow the DASE specification to move forward."
- o) Dolan to forward to ATSC staff within two weeks Rev 9 of the draft document, "ATSC Data Applications Reference Model" for the purpose of issuing a six week ballot of T3.

- p) Dolan to draft and forward to Richer a formal communication to CEA that it should develop a receiver model specifically to address PSI management (i.e., A/65 and A/90 tables and descriptors).
- q) Chernock to develop, with the assistance of Lechner and Weiss, a T3 white paper on metadata issues to bring T3 up to date on current efforts in this area.

Attachments

Attachment 1: Attendance List

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 1 Attendance List.doc>

Attachment 2: Draft Agenda

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 2 Draft T3 Agenda.doc>

Attachment 3: T3S8-437 rev 12

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 3 T3S8437r12.doc>

Attachment 4: Krauss Changes to T3S8-437

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 4 edit doc 437.doc>

Attachment 5: Draft PSIP Recommended Practice

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 5 T3S8 456r1.pdf>

Attachment 6: T3/S13 Report

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 6 S13reportOctober2001.PPT>

Attachment 7: T3/S14A Status Report

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 7 T3Report100301.ppt>

Attachment 8: T3/S9 Status Report

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 8 T3S9 Repor.ppt>

Attachment 9: Revised T3/S17 Charter

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 9 T3 538R0.doc>

Attachment 10: T3/S18 Status Report

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 10 ARM024R0 Status.ppt>

Attachment 11: Draft ARM Document

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 11 ARM001R7a Spec.doc>

Attachment 12: T3/S16 Status Report

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 12 S16 021.doc>

Attachment 13: T3/S16 Requirements

<http://www.atsc.org/sg/T3/Oct 3 2001/Documents/Attachment 13 S16 012r6.doc>