

Accredited Standards Committee*

InterNational Committee for Information Technology Standards (INCITS)

Doc. No.: T13/06-132r0

Date: April 25, 2006

Reply to: Mark Overby

To: T13 Membership
From: Mark Overby
Subject: T13 Plenary Meeting (Cupertino, CA) -- April 18 - 21, 2006

Agenda

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Results of Meeting

1. Opening Remarks

Dan Colegrove, the T13 Chair, called the meeting to order at 0900 Tuesday, February 21st, 2006. Dan Colegrove thanked Larry Barras of Apple who hosted this meeting.

As is customary, the people in attendance introduced themselves, and a copy of the attendance list was circulated. Copies of the agenda were made available to those in attendance.

The Chair briefly reviewed the meeting rules: T13 is a Technical Committee of INCITS and operates under INCITS rules. Anyone with interest in the work of the committee is free to attend and take part in discussions. However, motions and votes are limited to member organizations, one vote per member organization.

The Chair also noted that T13 operates under the INCITS antitrust guidelines. There should never be discussion of the following topics at any INCITS or an INCITS subgroup meeting:

- “Any company's prices or pricing policies;

- “Specific R&D, sales and marketing plans;

- “Any company's confidential product, product development or production strategies;

- “Whether certain suppliers or customers will be served;

- “Prices paid to input sources; or

- “Complaints about individual firms or other actions that might tend to hinder a competitor in any market.

Policies and Procedures and antitrust guidelines for INCITS are available at the web site at www.incits.org. T13 operates under these policies and procedures augmented by the T13 procedures at the T13 web site at www.t13.org.

2. Approval of Agenda

Some modifications were made to the agenda. Mark Overby moved, Curtis Stevens seconded, that the agenda be approved as revised. The motion passed by unanimous consent.

3. Attendance and Membership

The Chair reviewed the rules for membership and attendance:

3.1 Membership

An individual from an organization new to T13 must attend at least one T13 plenary meeting before requesting voting membership. After that meeting, the representative may request membership from the T13 chair stating expertise and material interest in the scope of the committee and pay the required fees to INCITS. The time when membership becomes effective has just changed. Membership now becomes effective at the start of the next meeting the organization attends assuming the organization attends one of the next two meetings.

3.2 Fees

Current INCITS memberships fees for Principal or additional Alternates are 800.00 USD. The First Alternate is free with a Principal membership.

Mailings of committee documents are available to any interested party after each plenary meeting. The cost for mailings for one year is 300.00 USD for mailing in the USA and 400.00 USD for mailing to a location outside of the USA.

Persons with questions or requests regarding membership fees and/or subscriptions for mailings should contact Parthenia Purnell, ITI Standards Operations, at ppurnell@itic.org.

3.3 Attendance

In addition to payment of fees, there are also minimum attendance and participation requirements to maintain voting membership status on T13. A representative from a member organization must attend two of every three plenary meetings and vote on at least every other letter ballot. If a member organization fails to have a representative in attendance at two of the last three T13 plenary meetings or vote on every other letter ballot, they are warned that failing to attend the next T13 meeting or to vote on the next letter ballot will result in their voting membership being terminated.

Attendance at a working group meeting does not affect voting membership status in T13.

The T13 voting membership during the meeting was 20 organizations. Lexar Media media joined at the meeting, raising the total to 20.

The number of eligible voting members required for establishing a quorum was 7. 13 Member organizations were present at the start of the meeting, thus a quorum was present.

The following individuals attended:

Table 1: Attendance List

Attendee	Company		Attendee	Company
Larry Barras	Apple Computer		Tom McGoldrick	Toshiba
Kenneth Hirata	Emulex		Avraham Shimor	M Systems
Eric Lanning	Finisar		Sergio Henriques	Apple Computer
Sumit Puri	Fujitsu		Peter Dinh	Marvell
Robert Strong	Intel		Dan Colegrove	Hitachi GST
Brian Dees	Intel		Steve Livacarri	IBM
John Geldman	Lexar Media		Tim Thompson	LSI Logic
Ron Bolton	Maxtor		Kevin Tonthat	Marvell
Mark Evans	Maxtor		Karen Zelenko	Phoenix Tech.
Frank Shu	Microsoft			
Mark Overby	NVIDIA			
Joe Chen	Samsung			
Jim Hatfield	Seagate			
Mladen Luksic	Western Digital			
Curtis Stevens	Western Digital			

4. Approval of the minutes from the previous T13 plenary meeting (e05182r0)

Mark Overby moved, Curtis Stevens seconding, that the minutes be approved. The motion passed with unanimous consent.

5. Document Distribution

The agenda was distributed by hard copy.

6. Review of Previous Action Items

1. Dan Colegrove to ask INCITS to send a representative to the next T13 meeting to discuss the proposed policy of closing the committee. {Done}
2. Dan Colegrove to notify INCITS that the A/V technical report project is cancelled. {Carry over}
3. Dan Colegrove to request the list of exhibits for the legal agreement from SATA-IO by April 14, 2006. {Done, posted}
4. Curtis Stevens to create an open items tracking document similar to what was done for T10-SAT. {Done}
5. Dan Colegrove to write a proposal for a definition of allocation unit for clause 4 of ATA8-ACS. {Done}
6. Mark Evans will research if a separate letter is needed from Maxtor for a Quantum patent related to UDMA that was released for ATA-5 and subsequent projects. {Carry over}

7. Old Business

7.1 ATA/ATAPI-7: 1532D

7.1.1 ISO Status

Mark Overby reviewed the proposed corrections to volume 1 of the ATA-7 standard that is at ISO. Mark stated that he would forward that copy to Gary by the end of the week following the meeting and would report back on the status. Mark also reported that a recommendation should be made for the US delegation to vote no on the draft for the standard such that the material from the amendment could be incorporation as part of that resolution.

7.1.2 ATA/ATAPI-7 Amendment [Overby]

7.1.2.1 INCITS Status

Dan Colegrove stated that he has not had yet forwarded the letter ballot comment resolution and form 1 to INCITS. Dan requested an action item to do so.

7.2 HBA-2 Standard Project: D2014

Mark Overby reported that a first draft has been created after conversion to frame. However, HBA-2 is going to be delayed while ATA7-APT recovery is ongoing.

7.3 ATA/ATAPI-8 Projects

7.3.1 AT Attachment 8 - Architecture Model (ATA8-AAM)

7.3.1.1 Letter Ballot Comment Resolution

Mark Evans reviewed the changes in revision 2b. He stated that most of the changes were editorial with the exception of the new reset language. All of the changes were marked in the document. Mark reviewed the changes to the reset language and minor modifications were suggested and made. Mark agreed to turn a revision with the changes that were made. He anticipated that, barring changes created by other standards.

7.3.2 AT Attachment 8 - Command Set (ATA8-ACS)

7.3.2.1 ATA8-ACS Open Issues (e06122r0) [Stevens]

Curtis Stevens reviewed the new document that he created to track open issues. He reviewed how the issues are documented in the tracking list and led a review of the items line by line. Editorial changes were reviewed and technical changes were reviewed and motions made for changes that were technical.

Curtis Stevens moved, Mark Overby seconded, that the HPA feature set be marked as prohibited (and all commands prohibited) for packet devices. Mark requested that the motion be postponed until later in the meeting so that people could consult with their ATAPI experts. Mark responded later that he had no issue. The motion passed with 10 ayes, 0 nays, and 0 abstentions.

Curtis Stevens moved, Jim Hatfield seconded, that the last sentence of 4.7.7 referring to discarding of error log data be removed from ATA8-ACS. The motion passed with 12 ayes, 0 nays, and 3 abstentions.

Curtis Stevens moved, Mark Evans seconded, that document e06133r0 incorporating Mark Evans proposed changes for reset terminology in ATA8-ACS be incorporated into ATA8-ACS. The motion passed with 15 ayes, 0 nays, and 0 abstentions.

Curtis Stevens moved, Dan Colegrove seconded, that the proposed change to the definition of allocation unit as modified during the media be incorporated into ATA8-ACS. The motion passed with unanimous consent.

Curtis Stevens moved, Mark Evans seconded, that the download microcode may be discarded instead of is discarded for the DOWNLOAD MICROCODE command. The motion passed with 9 ayes, 3 nays, and 4 abstentions.

Curtis Stevens moved, Mark Evans seconded, that the READ BUFFER command language be changed to may be indeterminate and remove the host requirement as documented in item 27 of e06122r0. The motion passed with unanimous consent.

Curtis finished the review by updating the document with the current status of the items that were on the list and agreed to post a new revision of the document to the website.

7.3.2.2 SATA Material for Incorporation in ACS (e06010r0) [Stevens]

Curtis Stevens reviewed his proposal for what material to bring into ATA-8 from SATA 2.5. A discussion was held about the material that is being transferred and where that material belongs.

Curtis requested that section 13.5.1 and 13.5.2.1 also be added to the list of items to be transferred.

A discussion was held about the SACTIVE register and there was agreement that text was needed to describe SACTIVE because it is needed in order to do NCQ. Brian Dees agreed to consider this. Curtis agreed that section 13.5.2.1 be included as well.

Jim Hatfield requested that Brian inquire about allowing the material into ATA8-AST as well so that the glue material can be created.

Dan agreed to provide this information to SATA-IO with Brian.

7.3.2.3 SCT Time Limit Error Reporting [Stevens]

Curtis Stevens requested that this item be deferred to the next meeting.

7.3.2.4 SATA Device BIST Control (e05149r0) [Chen]

Joseph Chen asked that this be removed from the agenda for future meetings.

7.3.2.5 Proactive Error Reporting and Correcting (e05142r1) [Shu]

Frank Shu requested that this item be deferred to the next meeting. Jim Hatfield and Mark Overby both noted that if the current ideas are carried forward that there could be conflict with the direction SATA-IO is going with asynchronous notification. Jim requested that Frank make sure that he is in line with the asynchronous notification discussions in SATA-IO.

7.3.2.6 ATA Features Summary (e05144r1) [Chen]

Joseph Chen stated that he had no updates at this time and requested that this be deferred to the next meeting when he anticipated having an update.

7.3.2.7 1k/4k Physical Sector Informative Annex [Colegrove]

Dan Colegrove requested that this item be deferred to the next meeting

7.3.2.8 Device Statistics (e06102r0) [Hatfield]

Jim Hatfield reviewed the current draft of his proposal. Frank Shu asked if this information would be duplicated with what he was working on with PRCS. Jim suggested that this may not be the case because his information is a collection of standardized information. Minor suggestions were made to the proposal and Jim agreed to revise the proposal for the next meeting.

7.3.2.9 ATA Security Clarifications(e05179r3) [Hatfield]

Jim Hatfield led a review of revision 3 of the replacement feature set description for ATA8-ACS. The document was reviewed in a line-by-line fashion. Numerous editorial comments were provided to Jim by various attendees. A significant discussion took place on the overview material, the formatting of the material, and if the material was necessary. Suggestions were made to consolidate the overview material into one section and replace the abstract material with subclause sections that describe each block of material. Jim made changes in the draft as the review progressed.

Curtis Stevens and Sumit Puri discussed if the document should just restate material already in the standard or fix things that are clearly conflicting or in error. Jim noted that there was a precedence in previous standard for tables over text. Sumit and Dan Colegrove both stated that if we find an error we should not be bound by what was in the previous standard if it was an error. The error should be corrected in this version of the standard. Discussion continued on this point for some time. Jim said that he would go back and think about the problems that were being identified.

It was noted that the review of this was progressing slowly but was valuable and necessary. It was agreed that this should proceed but the rest of the document would be deferred so that other items on the agenda could be covered.

7.3.2.10 New Set Features Setting [Chen]

Joseph Chen stated that the new set features code that he was requesting was for similar usage as the free fall feature set that Jim Hatfield brought into the committee. He stated that this could be removed from the agenda in favor of Jim's proposal (e06144r0).

7.3.2.11 Free-fall Feature Set (e06114r0) [Hatfield]

Jim Hatfield presented revision 0 of his proposal to add a feature set targeted to ACS-2 that exposes controls and behavior of a drive that contains a "free fall" sensor that detects a fall condition and can protect the drive from high G-force events. During the review of the proposal Mark Overby noted that this could be used to protect against more than just a free fall. Free fall implied a zero-G total acceleration event, whereas you'd also want to protect against a high total acceleration event such as accelerating, spinning events.

Further discussion was then held about the timer that was proposed. Curtis Stevens, Sumit Puri, and Steve Livacchari all questioned what the usefulness of the timer is. The delay period was unclear as to when it resets, what happens on repetitive motion, and how this interacts with various states of command transmission. This led into a further discussion of what the proposal is really trying to do. Jim agreed that he would attempt to clarify the timer behavior in correlation to what the host and device does in command transmission.

Frank Shu brought up a point that he thought that it was too difficult in this proposal for the user to figure out how to configure the drive sensitivity. Steve and Jim both responded that it is expected that the default value would be configured by the system builder and that the user could adjust on a sliding scale. Sumit noted that maybe 255 levels were too many. Frank thought that the drive should just self protect. Mark responded that

there are real world scenarios that need the user to have the ability to tune the settings (e.g. airplane turbulence).

Jim Hatfield agreed to take the feedback and work on a revision to the proposal for a future meeting.

7.3.2.12 Request for Security Protocol ID (e06127r0) [Shimor]

Avraham Shimor reviewed the proposal on behalf of IEEE P1667 to reserve one security protocol ID for use by the IEEE 1667 group. Avraham Shimor moved, Jim Hatfield seconded, that protocol ID EEh be assigned for use by P1667. The motion passed with 11 ayes, 0 nays, and 0 abstention.

7.3.2.13 IDENTIFY PACKET DEVICE Supported (e06125r0) [Elliott]

Curtis Stevens moved, Mark Overby seconded, that e06125r0 be incorporated into ATA8-ACS2

7.3.2.14 NOP Clarifications (e06126r0) [Elliott]

The committee reviewed Rob Elliot's proposal to clarify the language for the TCQ feature set and how the NOP command works. There was significant discussion amongst the attendees and suggested changes and corrections to the document. Mark Evans and Dan Colegrove made changes inline. Mark Overby agreed to take these changes and roll them into a document to give to Rob for potential approval at a subsequent meeting.

7.3.2.15 Obsolete Removable Media Feature Set (e06116r0) [Overby]

Curtis Steven moved, Mark Overby seconded, that e06116r0 be incorporated into ATA8-ACS. The motion passed with 12 ayes, 1 nay, and 2 abstentions. Jim Hatfield stated that he voted no because Frank Shu mentioned that there might be ATA people still using this feature.

7.3.2.16 ATA8-ACS_misc_issue (e06128r0) [Evans]

Mark Evans reviewed his proposal which covered several issues that were discovered in the clean up of the power-on reset handling. He noted that there was not clear words for how the revert to power on defaults setting in SET FEATURES is handled in general. There was general agreement that new words were needed and Mark agreed to tweak the words in his proposal and revise. Once that text has been cleaned up, then the text for what the read-write-verify feature set does becomes on reset becomes trivial.

Mark then reviewed the language for the unload immediate feature. He proposed simplified wording that was generally agreed was much better. Two minor editorial suggestions were given and Mark agreed to incorporate them into the proposal.

Review was done of the read-write-verify feature set and work was done to clarify the behavior of the read-write-verify feature set in the context of what happens to the feature during various types of reset.

Mark Evans moved, Curtis Stevens seconded, that e06128r0, as revised, be incorporated into ATA8-ACS. The motion passed with 7 ayes, 0 nays, and 2 abstentions.

7.3.2.17 Clarifications for Write-Read-Verify (e06121r0) [Hatfield]

Jim Hatfield reviewed his proposal which addressed some problems with the way reset behavior was defined for the feature set that was identified during reviews of the reset changes from AAM. Jim suggested wording that caused the SET FEATURES setting to be non-volatile so that the behavior is set upon startup. Sumit Puri and Curtis Stevens both noted that this would be a change to the behavior of the feature set. Sumit stated that the host needs to know about this feature such that the performance degradation is expected and known.

Mark Evans stated that he had a clarification in his proposal that did not require the change to make it non-volatile that is part of his agenda item (e06128r0).

Jim brought up that when the enabled bit gets set was not clear. However, Mark Evans and Curtis stated that there is a closed loop in the description of the SET FEATURES "enabling" a feature and the bit in IDENTIFY DEVICE indicating that a feature is enabled. Jim agreed that he would not pursue this issue.

Further clarifications were done over the terms for spin-up and a definition was created to incorporate those changes.

Jim Hatfield moved, Mark Evans seconded, that e06121r0 as revised be incorporated into ATA8-ACS. The motion passed with 9 ayes, 0 nays, and 1 abstentions.

7.3.2.18 Allow READ LOG EXT while locked (e06123r0) [Luksic]

Mladen Luksic reviewed his proposal to allow READ LOG EXT while locked. Jim Hatfield moved, Mladen Luksic seconded, that e06123r0 be incorporated into ATA8-ACS. The motion passed with 8 ayes, 1 nay, and 2 abstentions. Joseph Chen stated that he voted no because he preferred this be done on a per log page basis instead of globally.

7.3.2.19 Definition of Allocation Unit for Configure Stream [Colegove]

This agenda item was covered during the open issues for ATA8-ACS and was accepted with modifications as discussed in that section of the minutes.

7.3.2.20 Draft Review [Stevens]

7.3.3 AT Attachment-8 - Parallel Transport (ATA8-APT)

7.3.3.1 Review of Draft

Mark Overby reported that the ATA8-APT draft was corrupted by a Microsoft Word error and he is attempting to recover the file. If recovery does not work, he will recreate the material that was added since the last revision. Mark stated that he thought that the next revision should be done shortly after the T10 SAT meeting.

7.3.4 AT Attachment-8 - Serial Transport (ATA8-AST)

7.3.4.1 Review of Draft

Due to the SATA-IO negotiations, no review was held. However, during other discussions during the meeting there were items identified such as the SACTIVE register that would be candidates for material inclusion into ATA8-AST.

7.4 ACS-2 Project Proposal (e06106r0) [Stevens]

Curtis Stevens reviewed his project proposal to create an ACS-2 project. There was significant discussion between Joseph Chen, Curtis, Sumit Puri, and others about what the standard should be called. There was discussion from Sumit and Joseph that they thought there was a need to have the ATA8 nomenclature carried forward. There was concern that there would be confusion about what a drive complies with the new naming.

Curtis Stevens requested a straw poll for if the new standard should have an ATA-9 naming. The straw poll was 4 in favor of ATA9 and 11 opposed. A second straw poll was asked if ATA-8 needed to be in name, no one was in favor. Curtis made no change to the project name.

Curtis Stevens, Jim Hatfield seconding, moved that e06106r0 be approved as a new project.

Apple: yes
 CPR Tools: not present
 Emulex: yes
 Finisar: yes
 Fujitsu: yes
 Hitachi GST: yes
 IBM: yes
 Intel: yes
 Lexar: yes
 LSI Logic: yes

Maxtor: yes
Microsoft: yes
NVIDIA: yes
Phoenix: yes
Samsung: yes
Seagate: yes
Silicon Image: not present
ST Micro: not present
Toshiba: yes
Western Digital: yes

7.5 T13 reflector, FTP, and web site setup

Jim Hatfield asked if there were any issues with the website. Curtis asked for the actual abstracts from the draft standards to be on the website (as opposed to the abbreviated ones that are there now). Dan asked if a single link could be created so that the most recent draft of a standard was always connected. Curtis asked that the names of the current ATA-8 drafts be updated to the latest format. Jim agreed to do make the requested changes by the next meeting.

7.6 INCITS Membership and Meeting Attendance Policy

INCITS came to the meeting to give background on INCITS, what INCITS is doing, and the proposed membership policy changes.

INCITS stated that there is concern that the SATA-IO organization believes that there is not a license for INCITS to republish the material or use it in a new standard. This is the current hold up on the license material. Dan Colegrove and Curtis Stevens then discussed the status that SATA is a derivative of the existing ATA standards and that SATA is not currently willing to license the material that was given previously to the T13 committee. There were concerns expressed that there was no reciprocation between the organizations and that there needs to be a way to have the ATA documentation to be complete and accurate.

Dan Colegrove asked that INCTIS examine the liaison process between INCITS and other groups for how other groups use the standards that are produced by groups such as T13.

Jim Hatfield and Mark Evans asked INCITS what the motivation was for potentially closing the meeting. The response was that there is some concern over legal liability for what happens if non-members attend and cause INCITS to have legal liability for their actions. A secondary factor was to protect the value in the membership for the member organizations. This caused INCITS to examine the levels of membership at the executive board vs. the technical committee level vs. non-member participation at the technical committee level with the goal of increasing the revenue stream as a motivation (another motivation being more structured participation). An example is that there is 30 paying members for a committee, but there may be significantly more people on a reflector or attending the meetings. Dan stated that one of the factors is that the membership requires physical attendance at the meeting.

Ideas that were proposed to help increase membership would be for site licenses for standards access. There was also discussion that there is value in the having non members contribute information about proposed standards and provide feedback. Corporate memberships were also floated as being an attractive item as opposed to membership for 1 individual and alternate (with inclusion of standards access for the corporation).

7.7 International Standards Participation by T13

Mark Overby reviewed how ATA-7 was submitted to ISO and reviewed the process on how ATA-7 ultimately will become an international standard.

8. New Business

8.1 EDD Error Amendment [Stevens]

Curtis Stevens stated that in the title of clause 8.31 "FN 4Fh" should be "FN 50h" (the text in the body of the clause has this correct in all places). Curtis asked if this needs an amendment. Mark Evans stated that he thought this should be an errata. Dan Colegrove agreed. Curtis agreed to construct an errata based on input from Dan. Curtis Stevens moved, Jim Hatfield seconded, that e06134r0 be forwarded to INCITS as an approved errata for EDD-3.

Apple: yes
 CPR Tools: not present
 Emulex: not present
 Finisar: not present
 Fujitsu: not present
 Hitachi GST: yes
 IBM: yes
 Intel: yes
 Lexar: not present
 LSI Logic: yes
 Maxtor: yes
 Microsoft: not present
 M-Systems: abstain
 NVIDIA: yes
 Phoenix: not present
 Samsung: yes
 Seagate: yes
 Silicon Image: not present
 ST Micro: not present
 Toshiba: yes
 Western Digital: yes

The motion passed with 11 ayes, 0 nays, and 1 abstention.

8.2 ACS-2 Proposal Template (e06130r0) [Stevens]

Curtis Stevens began his review of his proposal for a template for proposals against ATA8-ACS by reviewing the format and guideline documents on the T13 website.

Curtis Stevens moved and Jim Hatfield seconded that d96111r0 be removed from the website as the project format guideline. The motion passed unanimously.

Dan Colegrove agreed to send a link to the INCITS project proposal to Jim to replace this on the website, and Jim agreed to update the website with the new link.

Curtis stated that d961129r2 is adequate as it is.

8.3 ACS-2 Changed Text Template (e06131r0) [Stevens]

Curtis then reviewed his template for changed text in the frame format.

8.4 Items from the Reflector

There were no items from the reflector that needed committee attention.

9. Liaison Reports

9.1 T10 [Colegrove]

9.1.1 Should T13 use the T10 style guide

Due to a lack of time for the agenda, this item was deferred to the next meeting.

9.1.2 SCSI to ATA Translation (SAT) Working Group Report

SAT is continuing letter ballot comment resolution. Several items have been identified that needed interaction with T13 such as NOP and the IDENTIFY PACKET clarifications.

9.1.3 USB Device Locking

Curtis Stevens stated the last T10 CAP meeting approved a protocol ID for the use of ATA locking commands through the trusted command CDB approved by T10.

9.2 T11 [Colegrove]

9.2.1 FC-SATA Status [Hirata]

Dan Colegrove stated that there were no impacts on T13 from the FC-SATA activities at this point.

9.3 IEEE

Avraham Shimor requested a protocol ID from T13 and was granted one.

9.4 Trusted Computing Group [Hatfield]

Jim Hatfield reviewed the TCG liaison report that was posted to the T13 website.

9.5 SFF [Colegrove]

Dan Colegrove stated that the 1" and 1.8" development is continuing.

9.6 IDEMA [Colegrove]

Dan Colegrove stated that he had no new items to report of relevance to the committee.

9.7 MMCA [Colegrove]

Mark Overby reported that MMCA is working with JEDEC for the next core specification. Curtis Stevens was unaware of any activity in the ATA TOG that affected the T13 committee.

9.8 CFA

Dan Colegrove reported that the CFA group is using some of the reserved words that had been granted to them.

9.9 Serial ATA IO [Dees]

9.9.1 Liaison Report

Brian Dees had no additional material to report that was not covered elsewhere on the agenda.

9.9.2 Copyright Clearance for ATA8 Project

The copyright clearance status was covered during the INCITS visit.

9.10 CE-ATA [Overby]

Mark Overby stated there was no activity in CE-ATA that affected T13.

10. Call for Patents

The Chair explained the patent policy. A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. This document is also on the INCITS web site at www.incits.org/help/ansi_sdo.html. Section 1.2.11 of that document contains the ANSI patent policy.

The Chair then called for patents and/or patent applications that may be necessary to comply with the requirements in T13 standards, draft standards, technical reports, or draft technical reports.

Larry Barras stated that Apple has two granted patents that may affect matters before the committee relating to free fall and has not reached a decision on licensing.

Brian Dees stated that he believes that Intel may have a patent necessary to implement a hybrid hard drive and is in the process of determining if it is materially necessary to implement hybrid hard drive compliant to ATA-8.

11. Review of Action Items

1. Mark Evans will research if a separate letter is needed from Maxtor for a Quantum patent related to UDMA that was released for ATA-5 and subsequent projects
2. Dan Colegrove to check on the status of the ATA7 amendment with INCITS
3. Dan Colegrove to forward the ATA8-ACS2 project proposal to INCITS within 7 days of the close of the meeting.
4. Dan Colegrove to notify INCITS that the A/V technical report project is cancelled.
5. Dan Colegrove to add ATA8-AST to the list of documents that the SATA-IO material can be used in.
6. Dan Colegrove to forward EDD-3 errata to INCITS for further processing.

12. Approved Proposals

The following proposals were approved for inclusion:

ATA8-ACS:

e06133r0 Reset Terminology
e06127r0 Security Protocol ID for 1667
e06125r0 IDENTIFY PACKET DEVICE clarification
e06116r0 Obsolete Removable Media Feature Set
e06128r0 ATA8 Misc. Issues
e06121r0 Write-Read-Verify Clarifications
e06123r0 READ LOG EXT while locked

13. Meeting Schedules

13.1 Meeting Length

Meeting lengths are unchanged.

13.2 Authorization of Ad-Hoc Working Groups

The committee voted during the plenary meeting to authorize:

Up to 4 web-ex conference calls for security clarification document review. Jim Hatfield moved, Joseph Chen seconded, that these up to 4 web-ex conference calls be authorized. The motion passed with unanimous consent.

13.3 Long-Term Meeting Schedule

Table 2: 2006 Dates

Date	Location	Host	Contact
June 20-23, 2006	Seattle, WA	NVIDIA	Mark Overby
August 22-25, 2006	Seattle, WA	Microsoft	Frank Shu
October 24 - 27, 2006	Las Vegas, NV	Fujitsu	Sumit Puri
December 12-15, 2006	Las Vegas, NV	Hitachi Global	Dan Colegrove

Table 3: 2007 Dates

Date	Location	Host	Contact
February 20-23, 2007	Orange County, CA	Western Digital	Curtis Stevens
April 24-27, 2007	Longmont, CO	ST Microelectronics	Aaron Wilson
June 19-22, 2007	TBD	NVIDIA	Mark Overby
August 21-24, 2007	Longmont, CO (tentative)	Seagate	Jim Hatfield
October 23-26, 2007	Fort Myers, FL	CPR Tools	Tony Alvarez
December 11-14, 2007	Las Vegas, NV	Hitachi Global	Dan Colegrove

14. Adjournment

Mark Overby moved, Dan Colegrove seconding, that the meeting be adjourned at 1130 Friday, 21 April 2006. The motion passed with unanimous consent.