



**IEEE P802.3an Task Force
(10GBASE-T)**

Agenda and General Information

Portland, OR

July 13-15, 2004

Brad Booth, Task Force Chair

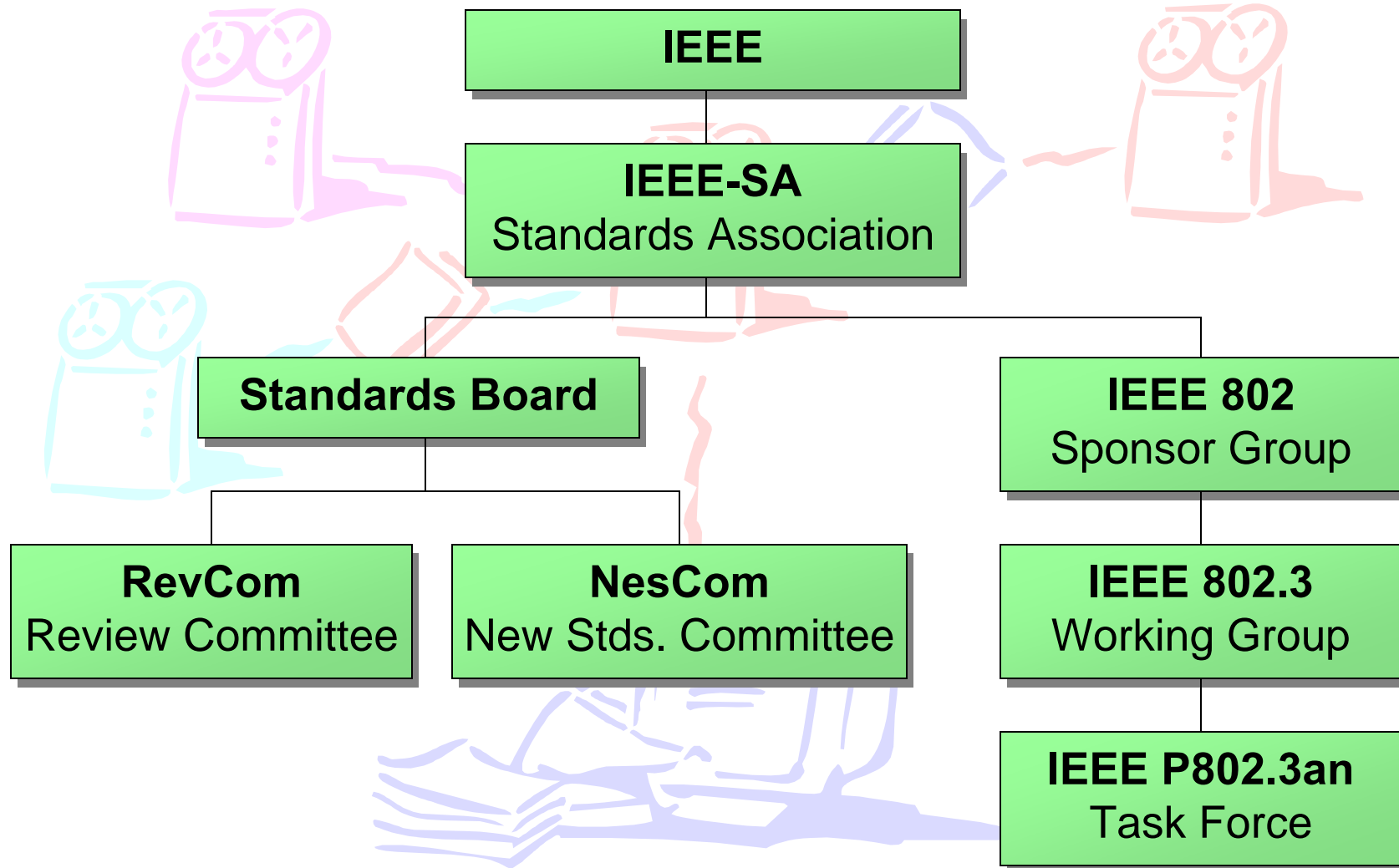
Please Put Cell Phones on Stun!!



Agenda

- **Welcome**
- **Recording Secretary:**
- **Introductions**
- **Approval of the Minutes (May '04)**
- **IEEE**
 - **Structure**
 - **Call for Patents**
 - **IEEE Standards Process**
 - **Bylaws and Rules**
- **Ground Rules**
- **Reflector and Web**
- **Goals for this Meeting**
- **Liaison Letters**
- **Presentations**
- **Future Meetings**
- **Motion Madness**

IEEE Structure



IEEE-SA Standards Board Bylaws on Patents in Standards

6. Patents

IEEE standards may include the known use of essential patents and patent applications provided the IEEE receives assurance from the patent holder or applicant with respect to patents whose infringement is, or in the case of patent applications, potential future infringement the applicant asserts will be, unavoidable in a compliant implementation of either mandatory or optional portions of the standard [essential patents]. This assurance shall be provided without coercion and prior to approval of the standard (or reaffirmation when a patent or patent application becomes known after initial approval of the standard). This assurance shall be a letter that is in the form of either:

- a) A general disclaimer to the effect that the patentee will not enforce any of its present or future patent(s) whose use would be required to implement either mandatory or optional portions of the proposed IEEE standard against any person or entity complying with the standard; or
- b) A statement that a license for such implementation will be made available without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.

This assurance shall apply, at a minimum, from the date of the standard's approval to the date of the standard's withdrawal and is irrevocable during that period.



Approved by IEEE-SA Standards Board – March 2003 (Revised February 2004)

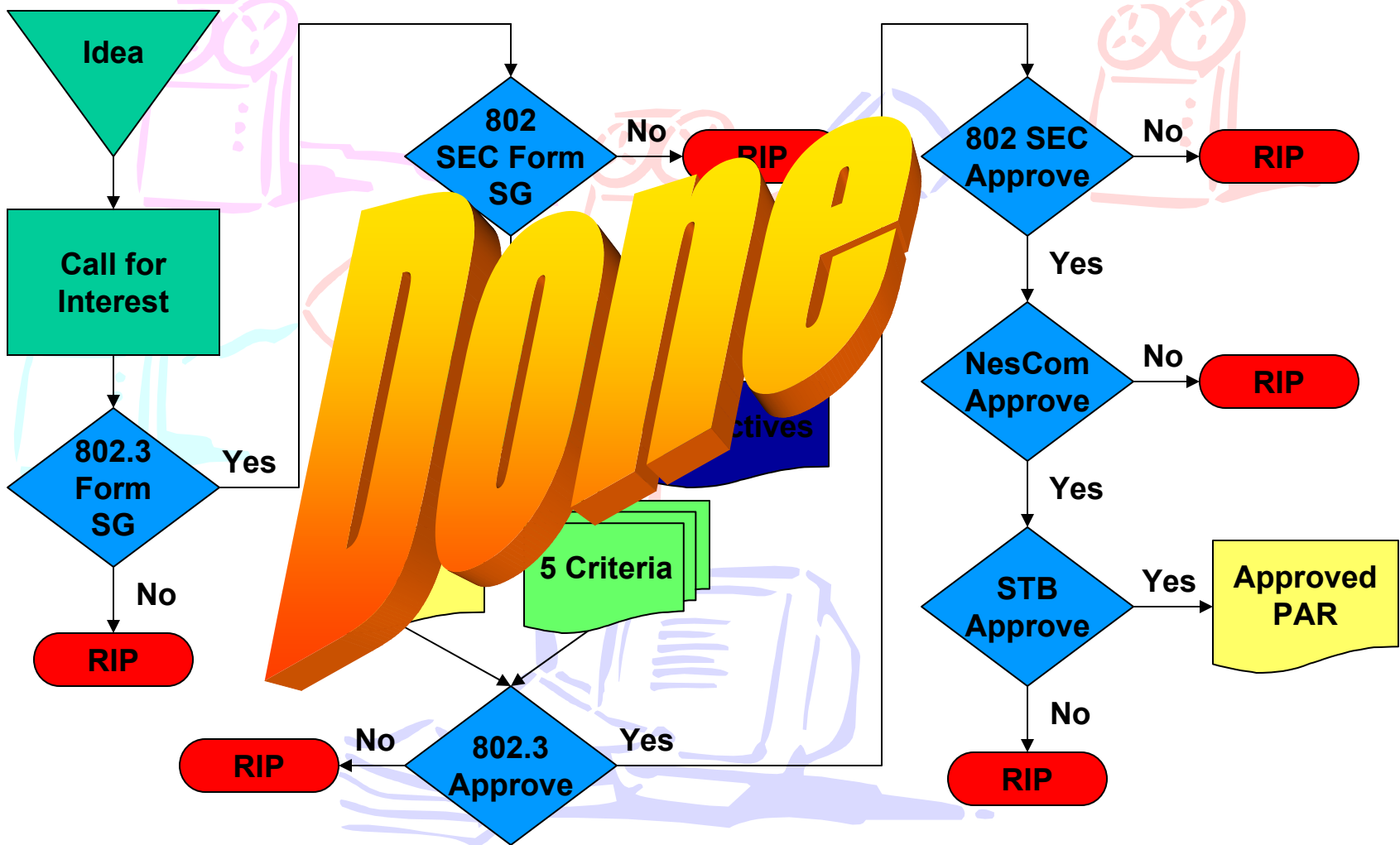
Inappropriate Topics for IEEE WG Meetings

- **Don't discuss licensing terms or conditions**
- **Don't discuss product pricing, territorial restrictions or market share**
- **Don't discuss ongoing litigation or threatened litigation**
- **Don't be silent if inappropriate topics are discussed... do formally object.**

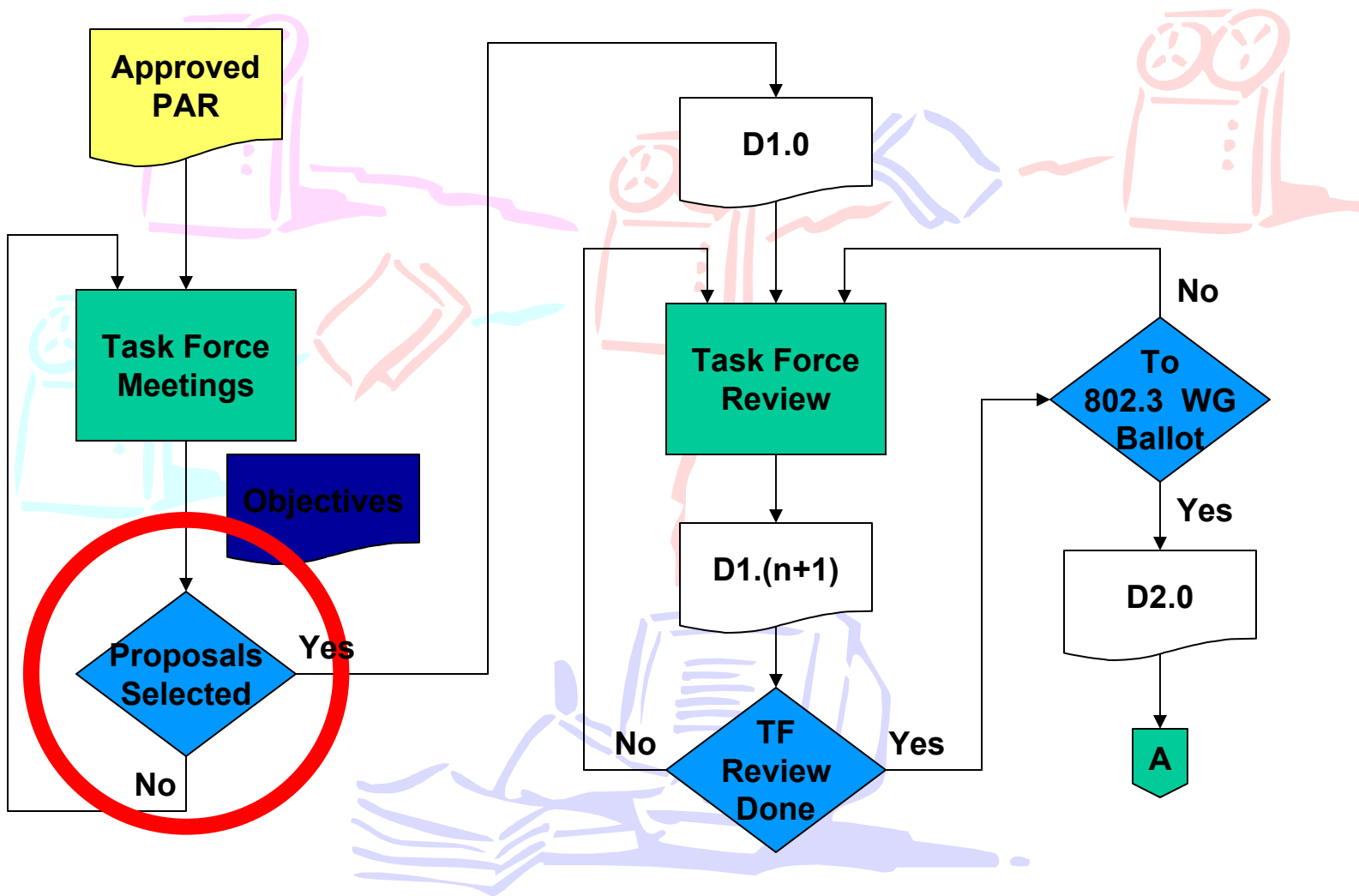
If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit <http://standards.ieee.org/board/pat/index.html>

Approved by IEEE-SA Standards Board – March 2003 (Revised February 2004)

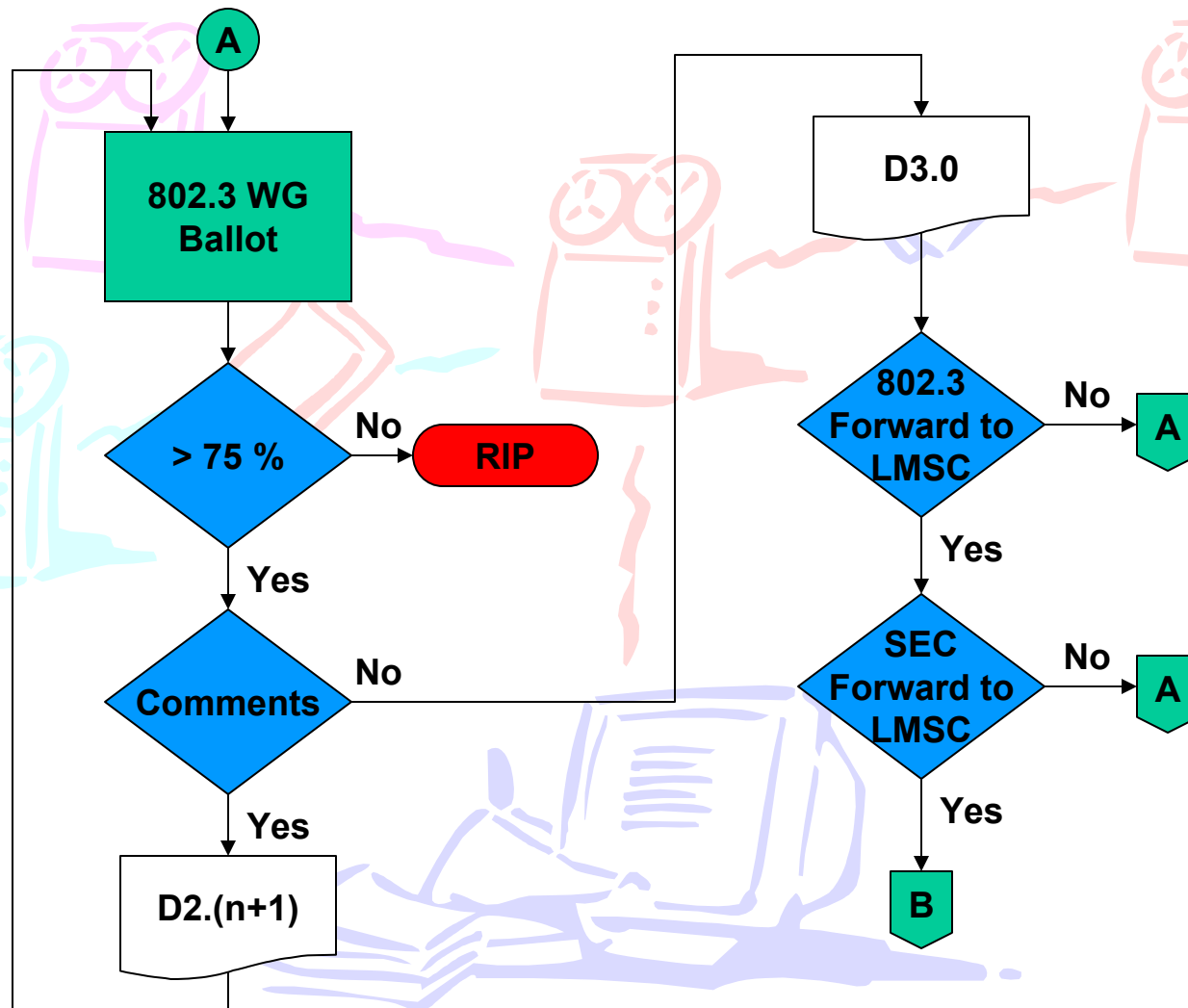
IEEE Standards Process



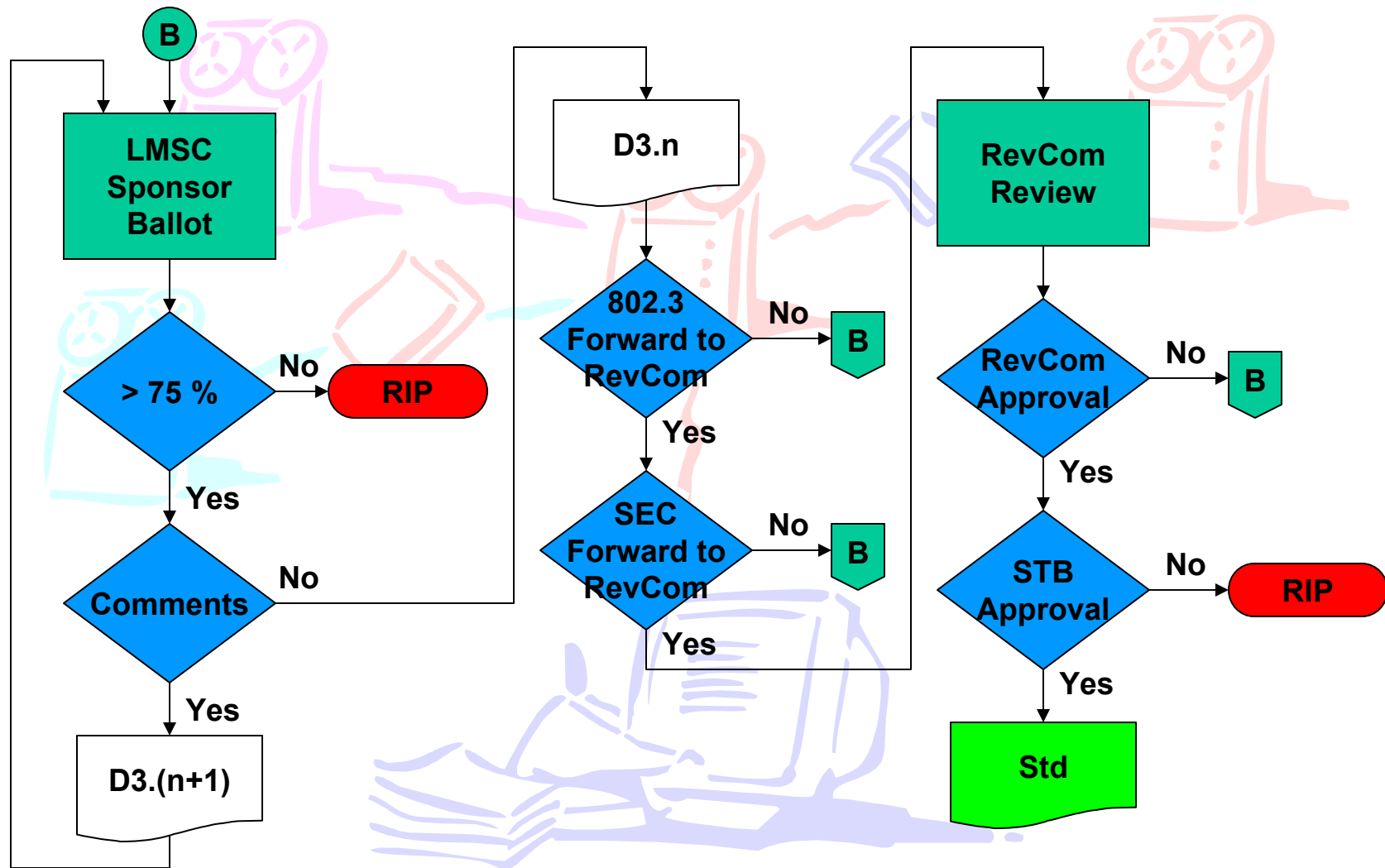
IEEE Standards Process (cont.)



IEEE Standards Process (cont.)



IEEE Standards Process (cont.)



Bylaws and Rules

- **Bylaws of the IEEE Standards Association (IEEE-SA):**

<http://standards.ieee.org/sa/sa-bylaws.pdf>

- **Bylaws of the IEEE-SA Standards Board:**

<http://standards.ieee.org/guides/bylaws/sb-bylaws.pdf>

- **IEEE LAN/MAN Standards Committee (LMSC) Operating Rules:**

<http://www.ieee802.org/rules.pdf>

- **IEEE 802.3 Working Group Operating Rules:**

<http://www.ieee802.org/3/rules/>

P802.3an Ground Rules

- **802.3 Rules apply**
 - Foundation based upon Robert's Rules of Order
- **Anyone in the room may speak**
- **Anyone in the room may vote**
- **RESPECT... give it, get it**
- **NO product pitches**
- **NO corporate pitches**
- **NO prices!!!**
 - This includes costs, ASPs, etc. no matter what the currency
- **NO restrictive notices**

Reflector and Web

- To subscribe to any of the 10GBASE-T reflectors send an email to:

listserv@ieee.org

with the following in the body of the message:

subscribe stds-802-3-10GBT <your name>

subscribe stds-802-3-10GBT-Modeling <your name>

subscribe stds-802-3-10GBT-Cabling <your name>

for example:

subscribe stds-802-3-10GBT Brad Booth

Uses the email address from the header information!!

- P802.3an Task Force web page URL:

<http://www.ieee802.org/3/an/>

P802.3an Objectives

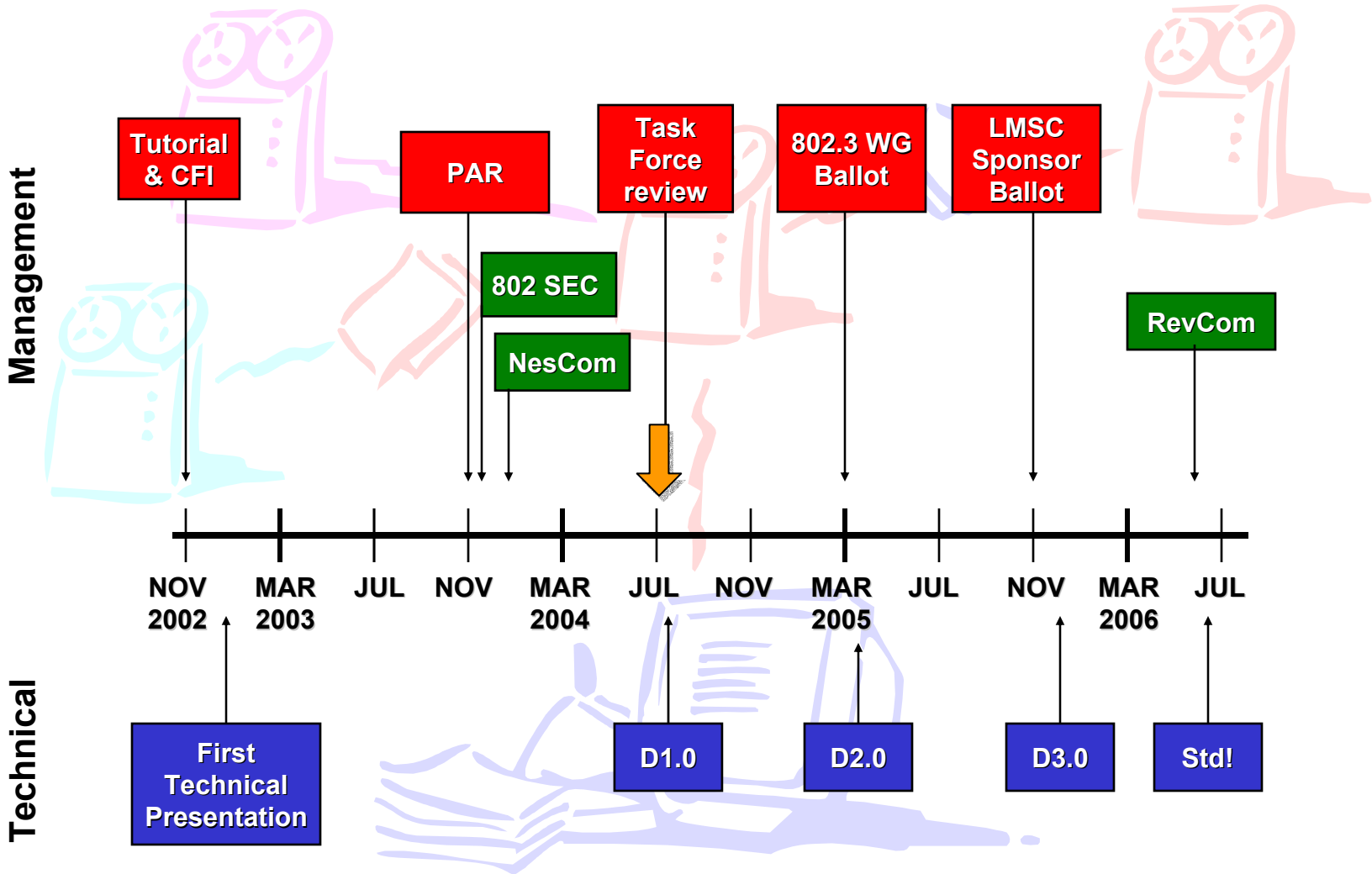
- **Preserve the 802.3/Ethernet frame format at the MAC Client service interface**
- **Preserve min. and max. frame size of current 802.3 Std.**
- **Support full duplex operation only**
- **Support star-wired local area networks using point-to-point links and structured cabling topologies**
- **Support a speed of 10.000 Gb/s at the MAC/PLS service interface**
- **Select copper media from ISO/IEC 11801:2002, with any appropriate augmentation to be developed through work of 802.3 in conjunction with SC25/WG3**
- **Support Clause 28 auto-negotiation**
- **Support coexistence with 802.3af**
- **To not support 802.3ah (EFM) OAM unidirectional operation**
- **Meet CISPR/FCC Class A**

P802.3an Objectives (cont.)

- **Support operation over 4-connector structured 4-pair, twisted-pair copper cabling for all supported distances and Classes**
- **Define a single 10 Gb/s PHY that would support links of:**
 - **At least 100 m on four-pair Class F balanced copper cabling**
 - **At least 55 m to 100 m on four-pair Class E balanced copper cabling**
- **Support a BER of 10^{-12} on all supported distances and Classes**



10GBASE-T Timeline



P802.3an Goals

- **Path to the creation of D1.0**
 - Adopt proposals for the formation of a baseline
 - Baseline is used to create D1.0
 - D1.0 → D2.0 is when TF works to create technical complete specification
- **D1.0 will be circulated for Task Force review and comments**
 - Comments should address making the draft technically complete
 - Comments will be reviewed in September meeting

Liaison Letter & Ad Hoc Reports

- **Liaison from TIA TR42**
 - Valerie Rybinski
- **Liaison from ISO/IEC JTC 1 / SG 25 / WG 3**
 - Alan Flatman
- **Editor's report**
 - Sanjay Kasturia
- **Ad hoc reports**
 - ?

Presentations

- **Larsen, Wayne; “NEXT can be Mitigated”**
- **Cobb, Terry; “Baseline Text for Clause 55.X MDI Specification and Environmental Specifications”**
- **DiMinico, Chris; “TSB-155 Draft 1.0 Additional Guidelines for 4-pair 100 Ω Category 6 Cabling and Link Segment Specifications”**
- **Flatman, Alan; “10GBASE-T Cabling Recommendations”**
- **Barrass, Hugh; “PHY based cabling diagnostics definitions”**
- **Lynskey, Eric; “Auto-negotiation for 10GBASE-T”**
- **Gupta, Sandeep; “PHY PMA electrical specs baseline proposal for 802.3an”**
- **Higuchi, Tetsuya; “ANEXT reduction by correlative coding for 10GBASE-T”**
- **Lin, Shu; “Structured Low-Density Parity-Check Codes: Algebraic Constructions”**
- **Seki, Katsutoshi; “Performance evaluation of low latency LDPC code”**

Presentations (cont.)

- Mezer, Amir; “THP As A Companion To LDPC”
- Powell, Scott; “10GBASE-T PAM Scheme: Proposed Overall Architecture”
- Ungerboeck, Gottfried; “10GBASE-T PAM Scheme: Fixed Precoder for all Cable Types and Lengths”
- Rao, Sailesh; “LDPC 4D-PAM8 proposal for 10GBASE-T”
- Tellado, Jose; “LDPC-PAM12 PHY proposal for 10GBASE-T”

Future Meetings

- **September 2004 Interim:**
 - In the works
 - Prospective host: Tyco
 - Location: Hershey, PA
- **November 2004 Plenary:**
 - Hyatt Regency San Antonio
 - Dates: Nov. 15-18
 - Location: San Antonio, TX

Straw Polls

- See [straw 1 0704.pdf](#)



Motion Madness

- See [motions 1 0704.pdf](#)



Adjourn

