IEEE P802.3an Task Force (10GBASE-T)
Agenda and General Information
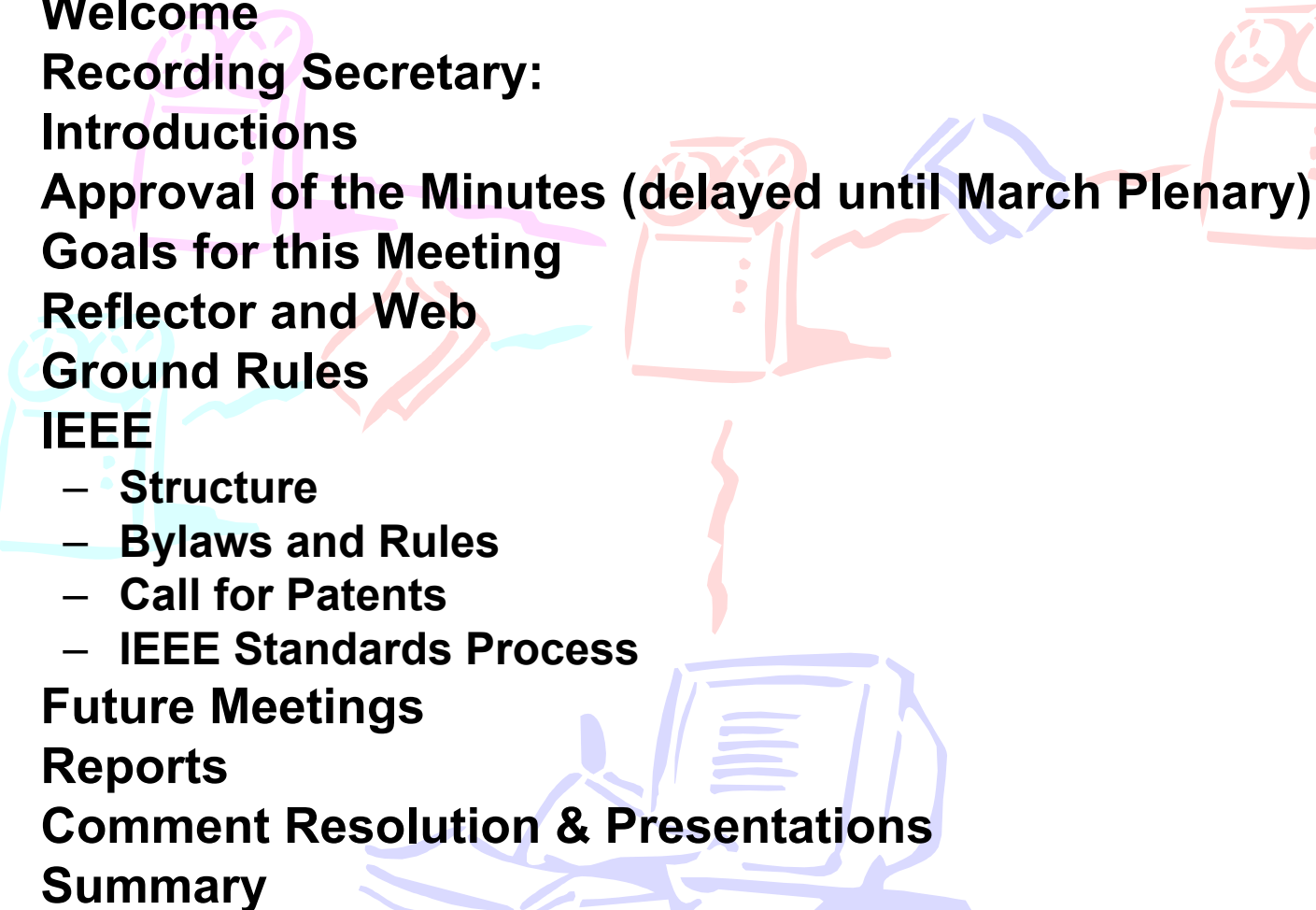
Santa Clara, CA
February 23-24, 2005

Brad Booth, Task Force Chair

Please Put Cell Phones on Stun!!

Agenda

- **Welcome**
- **Recording Secretary:**
- **Introductions**
- **Approval of the Minutes (delayed until March Plenary)**
- **Goals for this Meeting**
- **Reflector and Web**
- **Ground Rules**
- **IEEE**
  - **Structure**
  - **Bylaws and Rules**
  - **Call for Patents**
  - **IEEE Standards Process**
- **Future Meetings**
- **Reports**
- **Comment Resolution & Presentations**
- **Summary**

Goals for this Meeting

- **Respond to comments on draft D1.3**
  - **Hear presentations related to comments**

- **Adopt technical proposals to fill holes**
  - **Prepare draft for review by Working Group**
  - **Prepare to request going to Working Group ballot**

- **Task Editor to create draft D1.4**

Reflector and Web

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

    listserv@ieee.org

    with the following in the <u>body of the message</u>:

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

    for example:

    subscribe stds-802-3-10GBT Brad Booth
    end

- **P802.3an Task Force web page URL:**

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

Private Area

- **URL:**
  - **www.ieee802.org/3/an/private/**

- **Access**
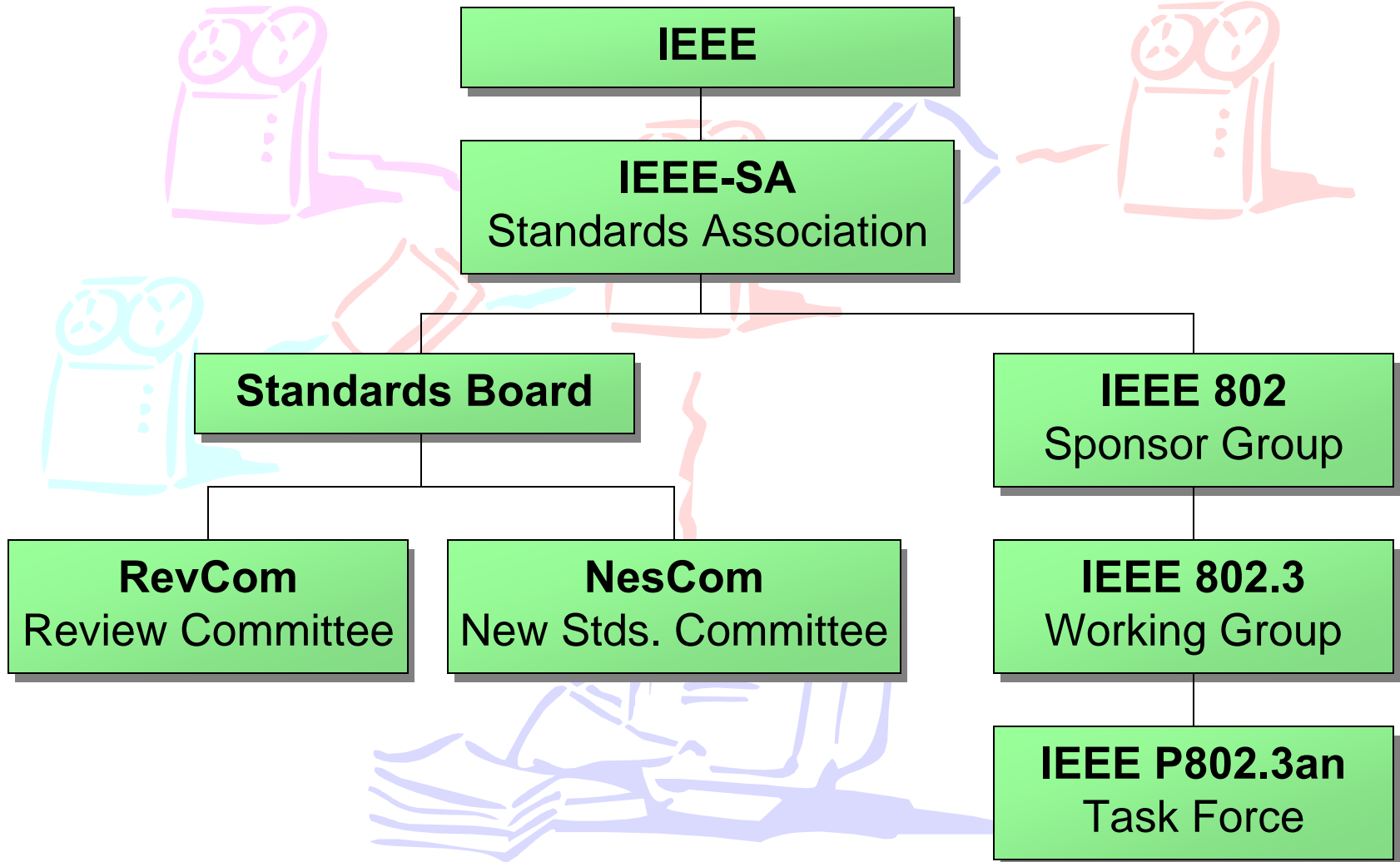 - **Userid: 802.3an**
  - **Password: ********

- **Write it down!!**

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**

IEEE Structure

```
                            ┌──────────────────────┐
                            │        IEEE          │
                            └──────────────────────┘
                                       │
                            ┌──────────────────────┐
                            │       IEEE-SA        │
                            │ Standards Association │
                            └──────────────────────┘
                                       │
              ┌────────────────────────┴───────────────────────┐
    ┌──────────────────────┐                        ┌──────────────────────┐
    │   Standards Board    │                        │      IEEE 802        │
    └──────────────────────┘                        │   Sponsor Group      │
              │                                      └──────────────────────┘
     ┌────────┴────────┐                                        │
┌──────────────┐ ┌──────────────────────┐           ┌──────────────────────┐
│   RevCom     │ │      NesCom          │           │     IEEE 802.3       │
│Review Committee│ │New Stds. Committee  │           │   Working Group      │
└──────────────┘ └──────────────────────┘           └──────────────────────┘
                                                                │
                                                     ┌──────────────────────┐
                                                     │   IEEE P802.3an      │
                                                     │     Task Force       │
                                                     └──────────────────────┘
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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/

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 December 2004)

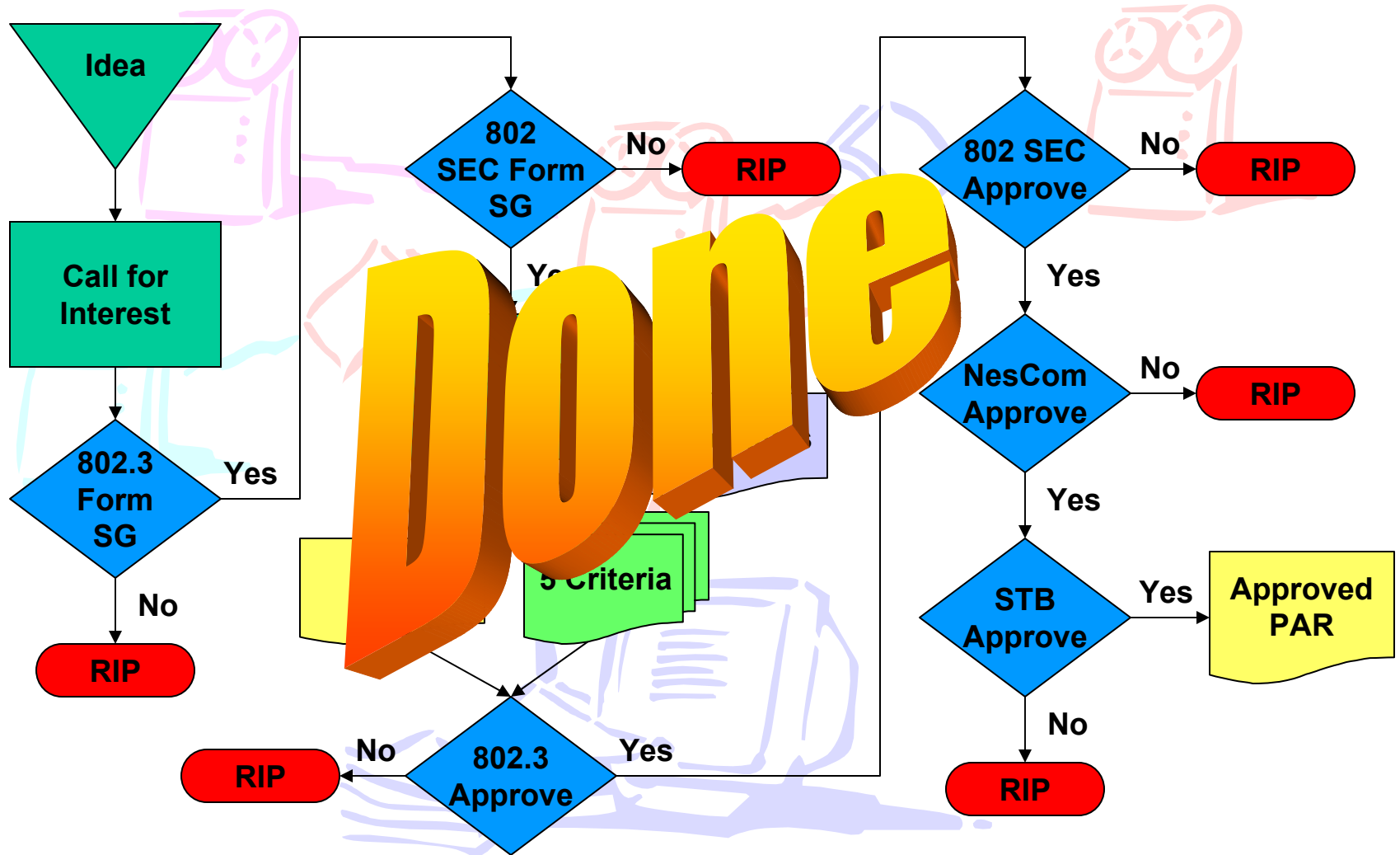# Inappropriate Topics for IEEE WG Meetings

- **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.**

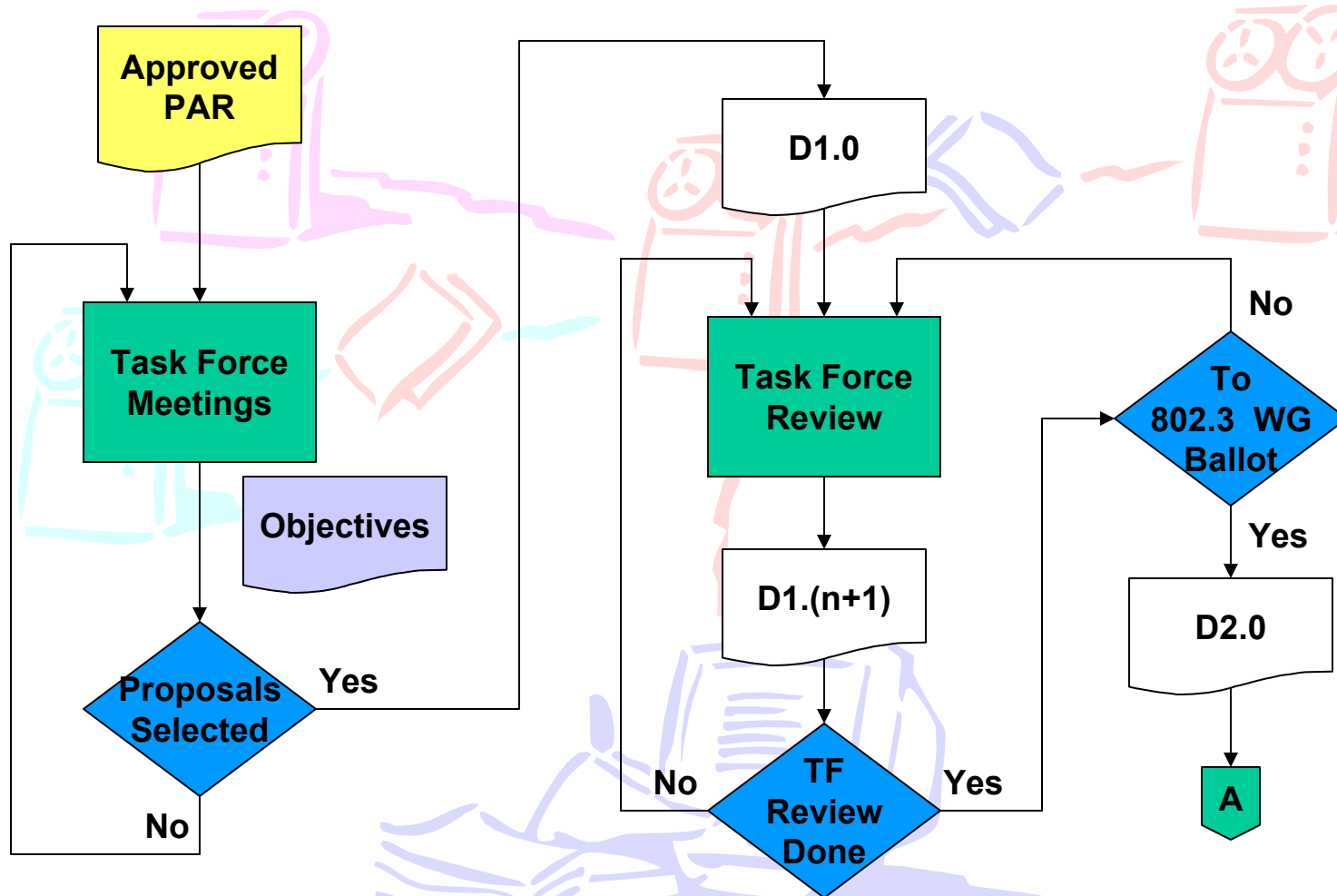 If you have questions, contact the IEEE-SA Standards Board Patent Committee Administrator at patcom@ieee.org or visit http://standards.ieee.org/board/pat/index.html

This slide set is available at

http://standards.ieee.org/board/pat/pat-slideset.ppt

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

IEEE Standards Process

IEEE Standards Process (cont.)

Approved PAR → Task Force Meetings

Objectives

Proposals Selected — No / Yes

D1.0 → Task Force Review → D1.(n+1)

TF Review Done — No / Yes

To 802.3 WG Ballot — No / Yes

D2.0 → A
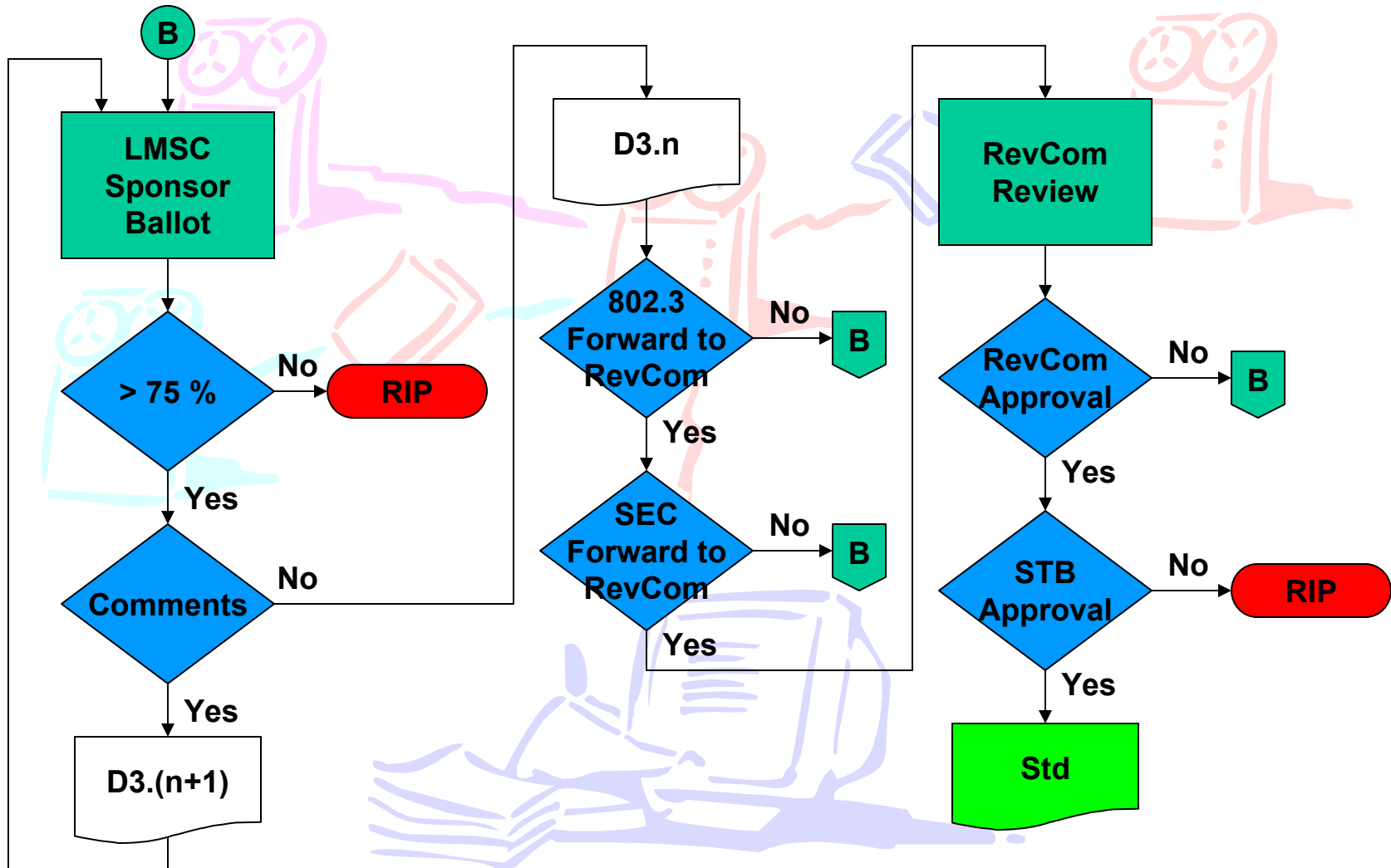
IEEE Standards Process (cont.)
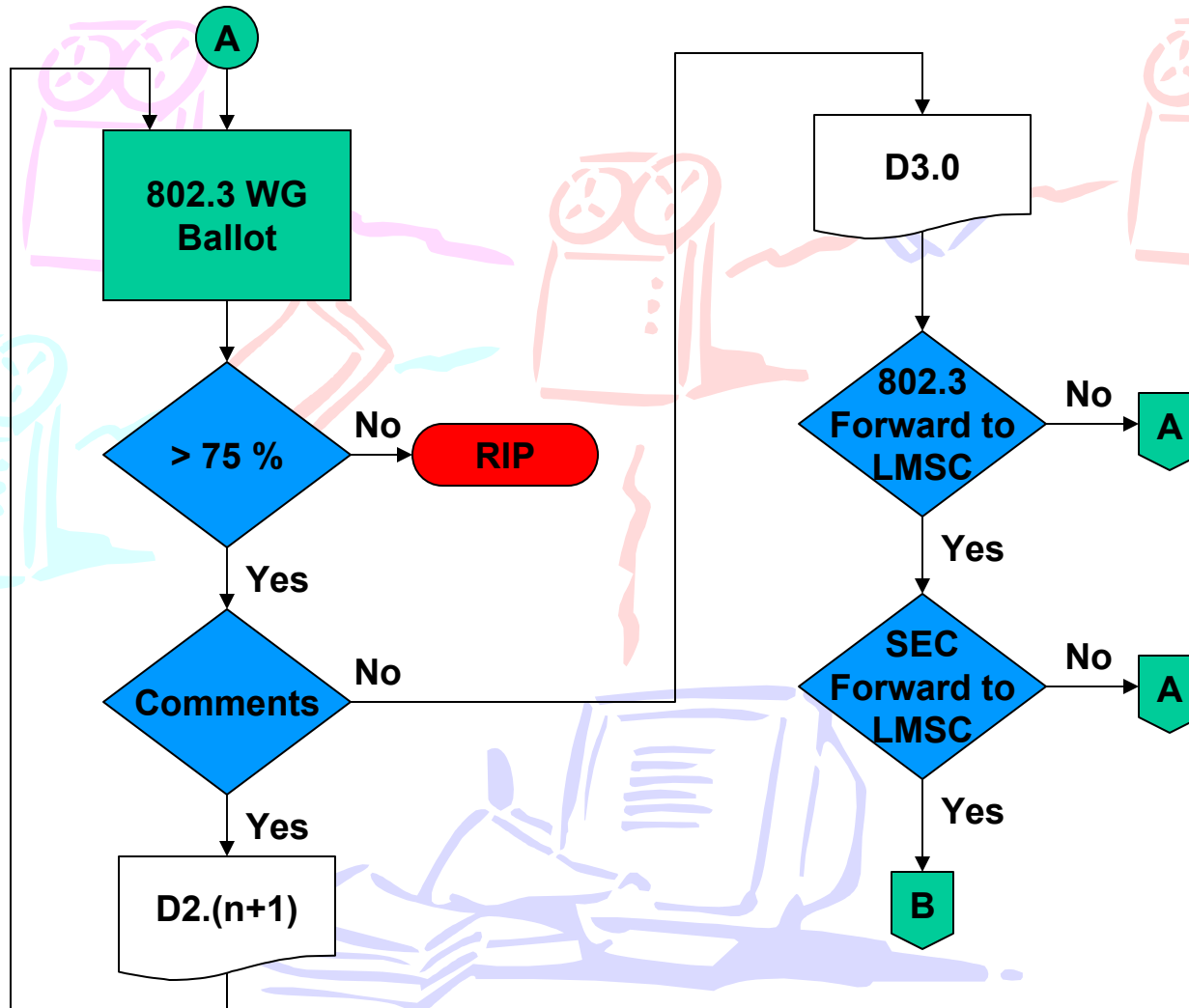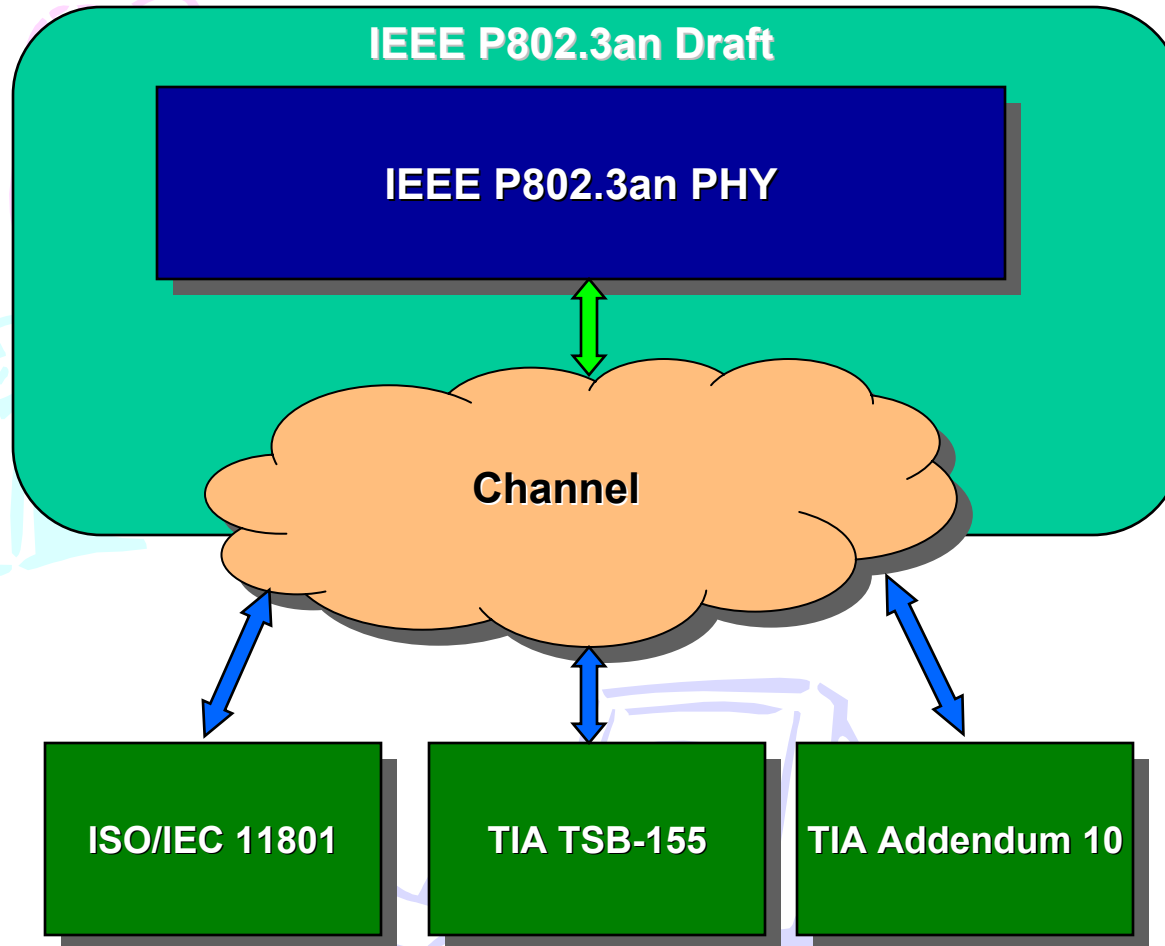
IEEE Standards Process (cont.)

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**
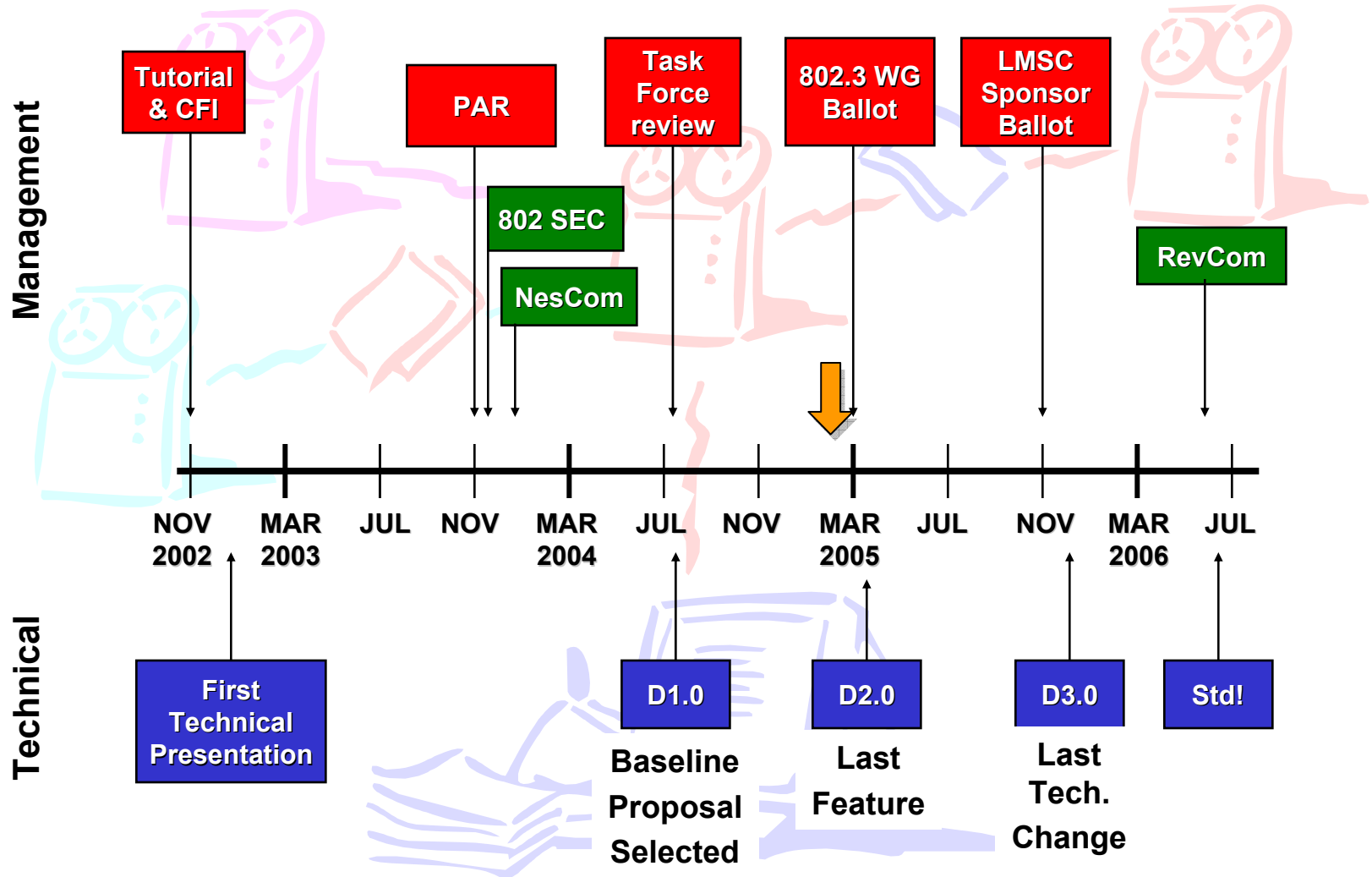
P802.3an Objectives (cont.)

- **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**

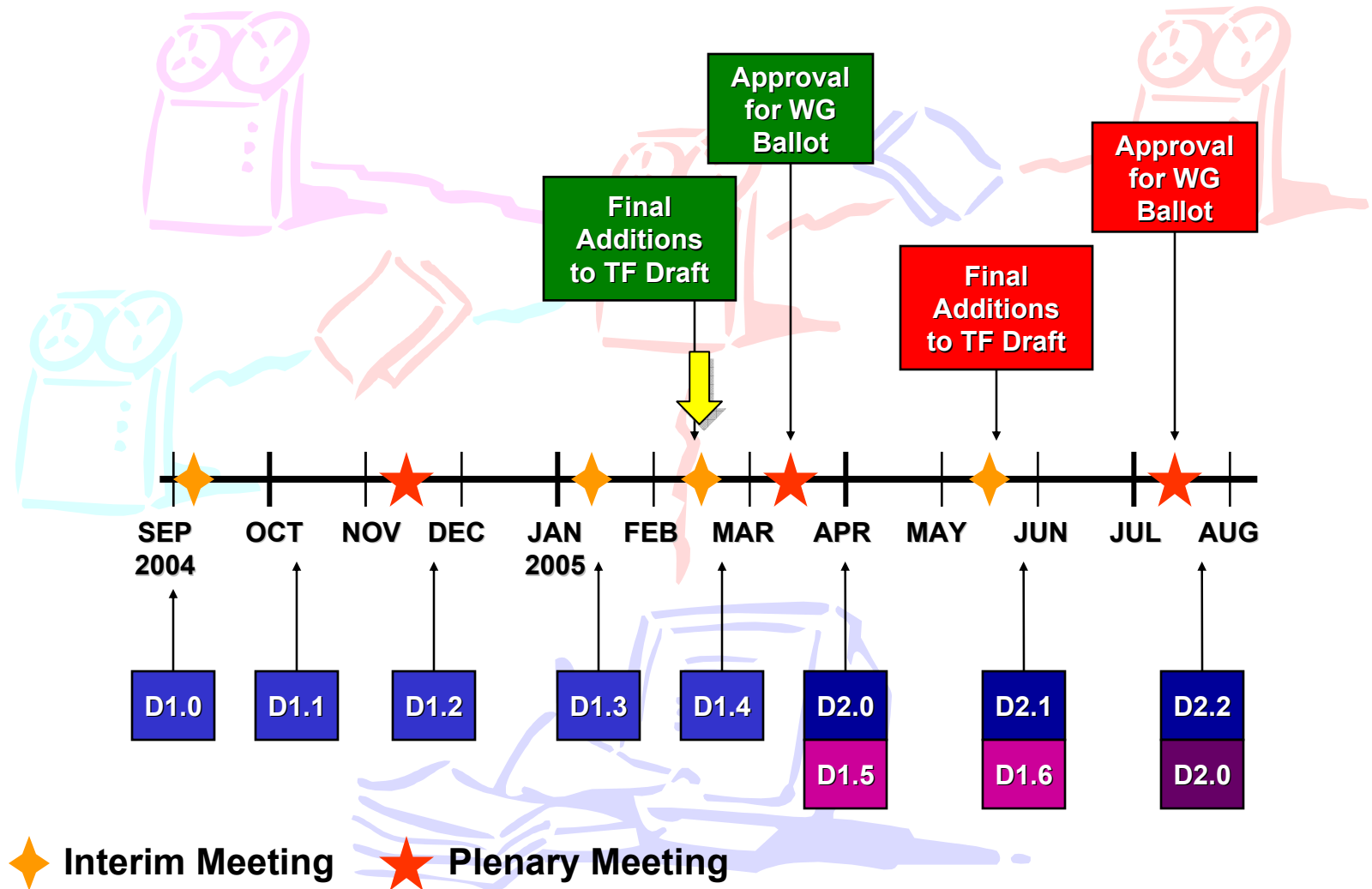- **Support a BER of 10^{-12} on all supported distances and Classes**

Cloud Overview

IEEE P802.3an Draft

IEEE P802.3an PHY

Channel

ISO/IEC 11801

TIA TSB-155

TIA Addendum 10

P802.3an Timeline

Management

| Tutorial & CFI | PAR | Task Force review | 802.3 WG Ballot | LMSC Sponsor Ballot |

802 SEC

NesCom

RevCom

NOV 2002 — MAR 2003 — JUL — NOV — MAR 2004 — JUL — NOV — MAR 2005 — JUL — NOV — MAR 2006 — JUL

Technical

First Technical Presentation

D1.0 — Baseline Proposal Selected

D2.0 — Last Feature

D3.0 — Last Tech. Change

Std!

P802.3an Timeline Magnified

Interim Meeting   **Plenary Meeting**

Future Meetings

- **March 2005 Plenary:**
  - **Date: Week of the 14th**
  - **Location: Atlanta, GA**
  - **Hotel: Hyatt**

- **May 2005 Interim (target):**
  - **Date: Week of May 16th**
  - **Location: Austin, TX**
  - **Hotel: TBD**

- **July 2005 Plenary:**
  - **Date: Week of the 18th**
  - **Location: San Francisco, CA**
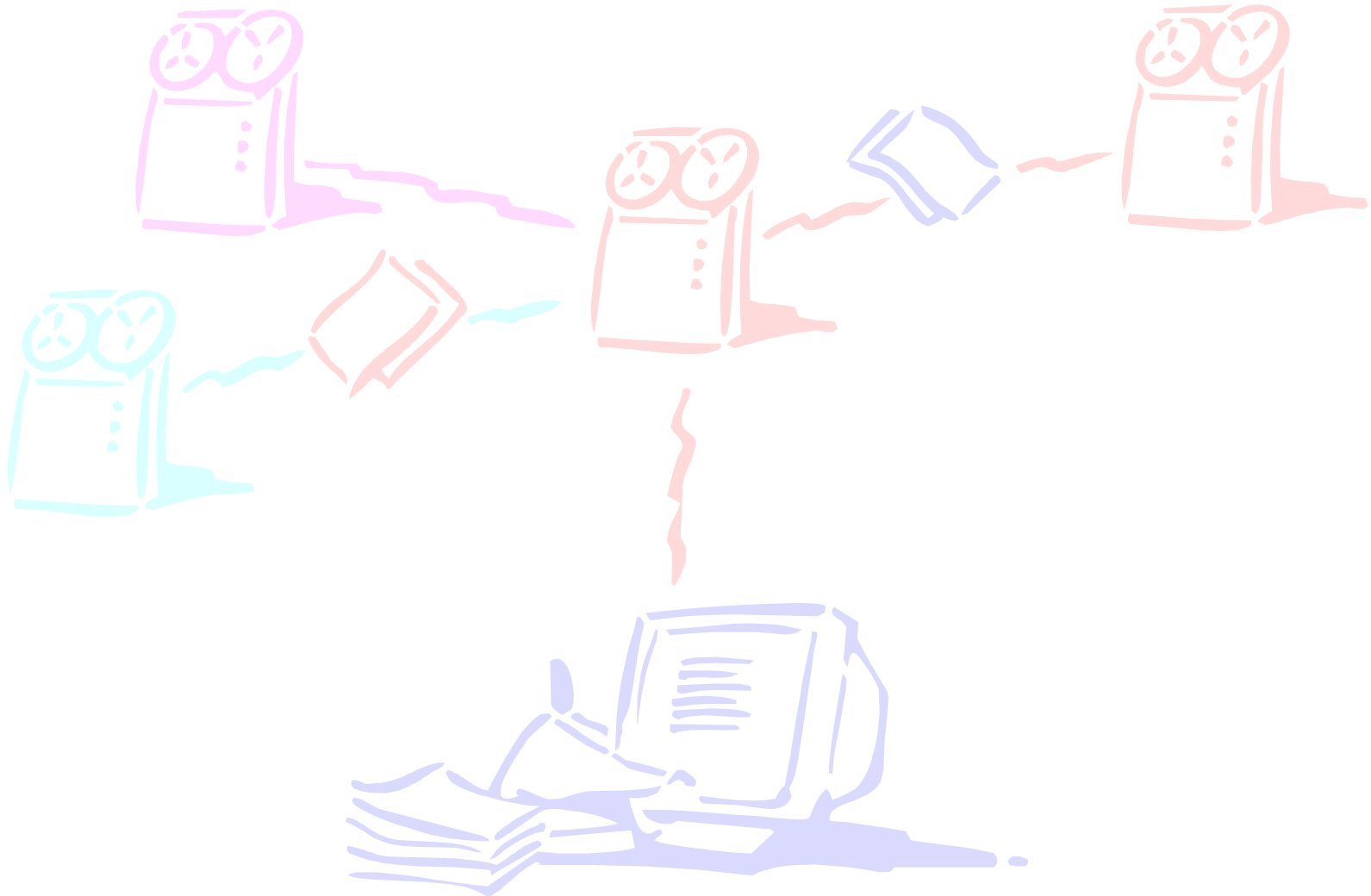 - **Hotel: Hyatt Regency Embarcadero**

Reports

- **Liaison from ISO/IEC JTC 1 / SG 25 / WG 3**
  - **One liaison letters from WG 3**

- **Liaison from TIA TR42**
  - **Presentation from Paul Kish**
  - **Update to Addendum 10 and TSB-155**

- **Editor's report**
  - **How did we do on D1.3?**

Comment Resolution & Presentations

Motions

IEEE P802.3an Task Force

Channel Diagnostics Motion

- **Motion: Direct the editors to create Optional Channel Diagnostic registers to the PMA/PMD MMD:**
  - **A) To report the "SNR Operating Margin" measured at the slicer on a per channel basis. Two sets of registers will be created to report:**
    - **1) SNR Operating Margin during normal operation**
    - **2) Latched value for the lowest value observed since last read.**
      - **Values for both sets of these registers will be reported with .1dB resolution to an accuracy of .5dB, range of -12.7 to 12.7dB**
  - **B) Additional register space will be reserved for vendor specific use.**

M: Mike McConnell

S: Hugh Barrass

Technical (≥75%)

TF: Y: by voice   N: A:

PASS

Channel Diagnostics Motion #2

- **Motion: Direct the editors to create Optional Channel Diagnostic registers to the PMA/PMD MMD:**
  - **A) To report the "SNR Operating Margin" measured at the slicer on a per channel basis. Two sets of registers will be created to report:**
    - **3) Receive signal power at the MDI during training**
      - **Values for both sets of these registers will be reported with .1dB resolution to an accuracy of .5dB, range of TBD to 5.2 dBm.**
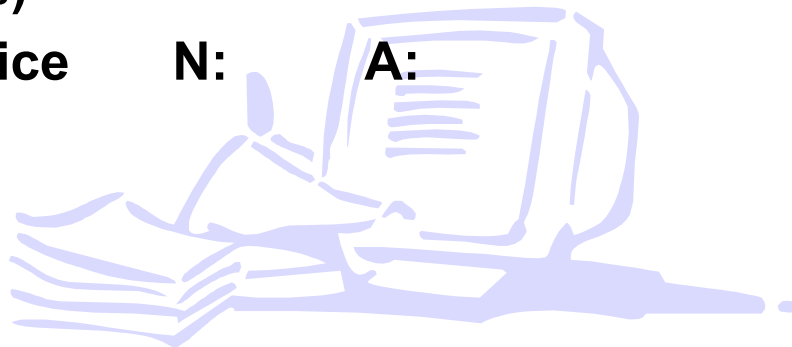
M: Paul Kish

S: Hugh Barrass

Technical (≥75%)

TF: Y: by voice   N: A:

PASS

Editorial Comments Motion

- **Move that the Task Force grant editorial license to the P802.3an editors to resolve the editorial comments as they see fit.**

- **M: A. Flatman**
- **S: J. Tellado**
- **Technical (≥75%)**
- **TF: Y: by voice   N: A:**
- **PASS**

D1.4 Motion

- **Move that the Editor generate draft D1.4 for Task Force review.**

- **M: A. Flatman**

- **S: J. Tellado**

- **Procedural (>50%)**

- **TF: Y: by voice   N: A:**

- **PASS**

THP FIR Motion

- **Move to adopt the FIR precoder settings in vareljian_1_0205.pdf for settings A(1), A(2) & A(3).**

- **M: G. Zimmerman**

- **S: A. Vareljian**

- **Technical (≥75%)**

- **TF: Y: 25   N: 0   A: 9**

- **PASS**

Adjourn

- **Move to adjourn.**
- **M: J. Tellado**
- **S: H. Barrass**
- **Procedural (>50%)**
- **TF: Y: by voice   N: A:**
- **PASS**

Thank You!

IEEE P802.3an Task Force