

IEEE P802.3ap Task Force

Opening Plenary Meeting Report

San Francisco, CA

July 18, 2005



Task Force Organization

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Reflector and Web

- To subscribe to the IEEE P802.3ap Backplane Ethernet Task Force reflector send an email to:
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- IEEE P802.3ap Task Force web page:
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- Channel Model Ad Hoc web page:
http://www.ieee802.org/3/ap/public/channel_adhoc
- Signaling Ad Hoc web page:
http://www.ieee802.org/3/ap/public/signal_adhoc



IEEE P802.3ap Draft Repository

- IEEE P802.3ap Private Area:

- <http://ieee802.org/3/ap/private/index.html>

- Username: 802.3ap
 - Password: XXXXXX

- Write it down...



IEEE P802.3ap Task Force Documents

- Approved PAR

<http://standards.ieee.org/board/nes/projects/802-3ap.pdf>

- 5 Criteria

http://ieee802.org/3/ap/802_3_ap_5criteria.pdf

- Objectives

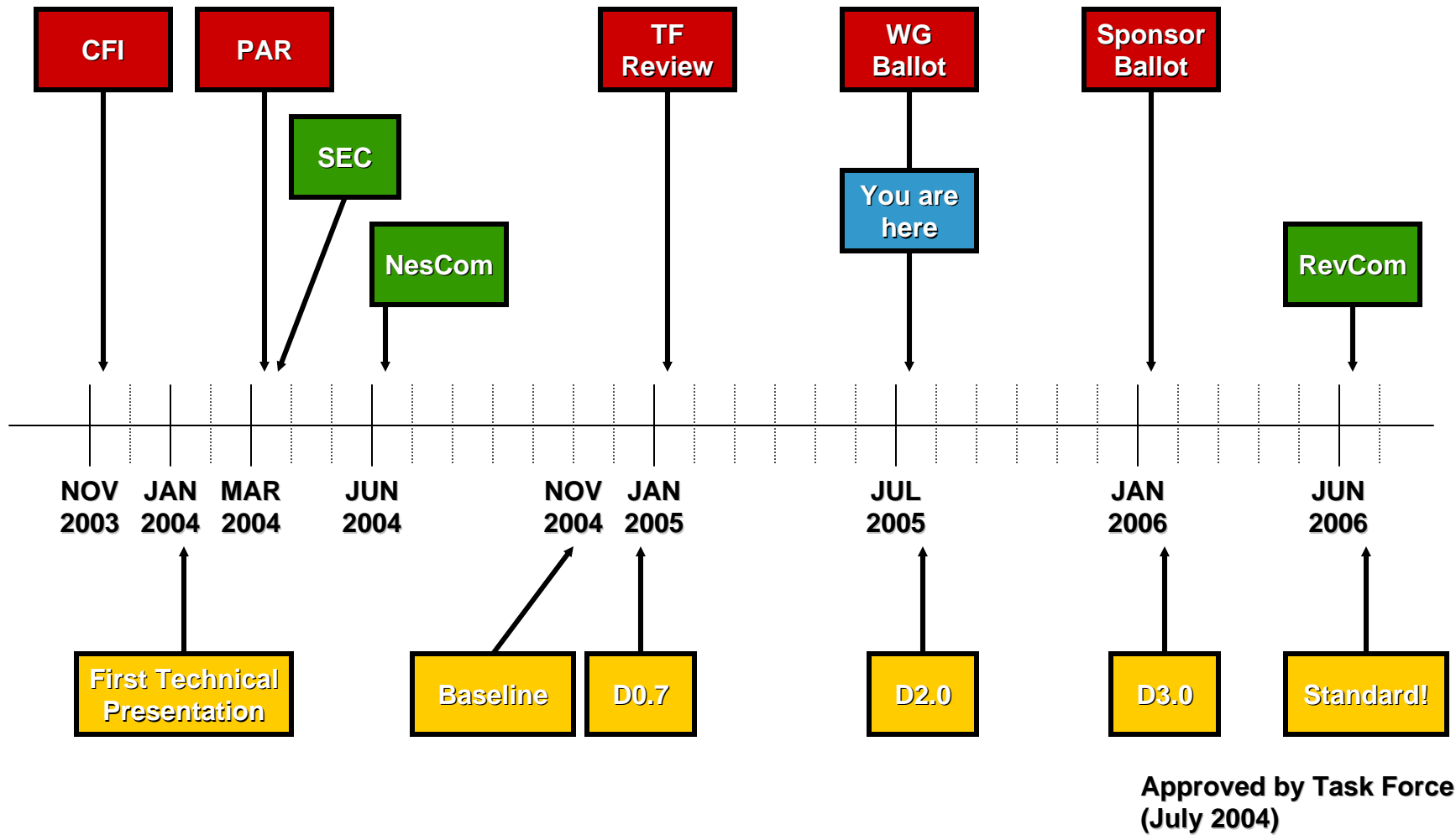
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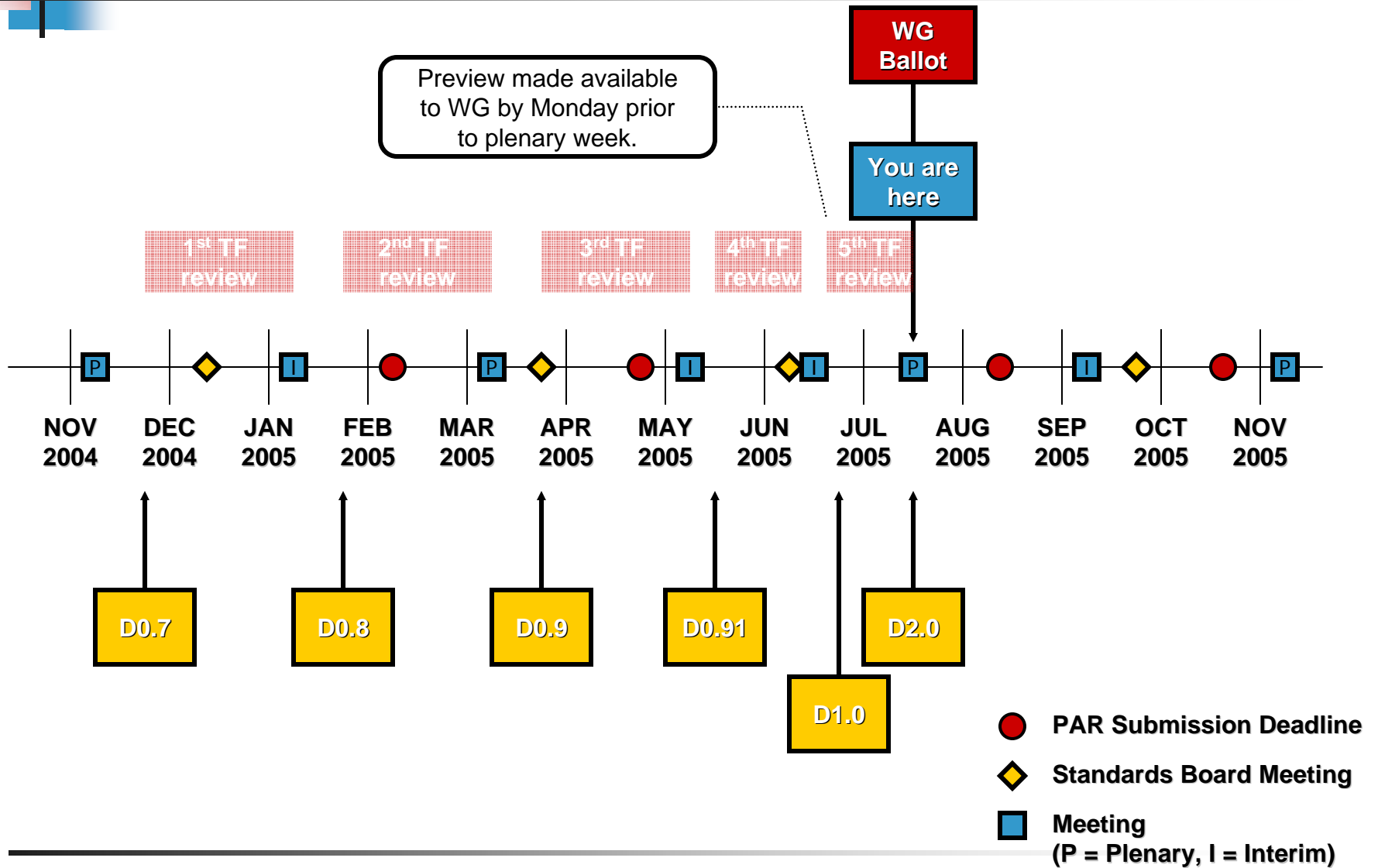
IEEE P802.3ap Objectives

- **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 existing media independent interfaces.**
- **Support operation over a single lane across 2 connectors over copper traces on improved FR-4 for links consistent with lengths up to at least 1m.**
 - **Define a 1 Gb/s PHY**
 - **Define a 10 Gb/s PHY**
- **Define a 4-lane 10Gb/s PHY for operation over the 802.3ap channel model.**
- **Consider auto-negotiation.**
- **Support BER of 10^{-12} or better.**
- **Meet CISPR/FCC Class A.**

IEEE P802.3ap Timeline



Timeline Detail





May Interim Meeting

- May 16-18, Austin, TX
 - Hosted by Tyco Electronics

- Completed specification framework
 - Channel specifications informative, transmit and receive specifications normative
 - Defined channel specification methodology
 - Defined receiver compliance test methodology (applies to all port types)
 - Adopted 10GBASE-KR transmitter specifications
 - Analog signal detect made optional

- Resolved 152 comments against Draft 0.9



May Interim Motions (1/3)

- Adopt thaler_01_05 as the basis for resolution of comment 93 (C bits will not be moved, Analog Signal Detect will be optional).
 - M: Thaler, S: Ganga, Y: 32, N: 0, A: 7 (PASSES)
- Channel characterization be defined using (1) the attenuation limits as in Draft 0.9, (2) deviation limits as in Draft 0.9, and (3) crosstalk methodology as in dambrosia_01_0505 (single aggressor and ACR)
 - M: Palkert, S: Spagna, Y: 32, N: 0, A: 5 (PASSES)
- Receiver testing in Annex 72A be modified per palkert_01_0505.
 - M: Spagna, S: Goergen, Y: 27, N: 0, A: 12 (PASSES)
- IEEE P802.3ap compliance methodology be based on 2/3 approach: TX is normative, channel is informative, RX is normative.
 - M: Goergen, S: Ghiasi, Y: 28, N: 1, A: 7 (PASSES)



May Interim Motions (2/3)

- Use the same receiver compliance methodology for -KX and -KX4 as described in Annex 72A and modified by palkert_01_0505.
 - M: Moore, S: Bachar, Y: 23, N: 1, A: 10 (PASSES)
- Accept the transmitter Equalization Ratio Test (ERT) methodology as described in slides 3 - 5 of brink_04_0505.
 - M: Brink, S: Gaither, Y: 27, N: 1, A: 5 (PASSES)
- Accept the transmitter equalization solution space and test methodology as described on slides 7 and 8 of brink_04_0505.
 - M: Brink, S: Gaither, Y: 26, N: 0, A: 9 (PASSES)
- Accept the updates to the startup protocol as described on slides 11 and 12 in brink_04_0505.
 - M: Brink, S: Gaither, Y: 23, N: 1, A: 10 (PASSES)



May Interim Motions (3/3)

- Use the same informative channel model for 1000BASE-KX, 10GBASE-KX4, and 10GBASE-KR.
 - Motion to amend FAILS.
 - M: van Doorn, S: Lerer, Y: 20, N: 7, A: 10 (FAILS)
- Add a table to subclause 69.3 binding f1 and f2 values to the port types.
 - M: Goergen, S: Moore, Y: 26, N: 0, A: 6 (PASSES)
- Accept proposed comment resolutions (with editorial comments to be addressed by the editor) and integrate into interim Draft 0.91.
 - M: Spagna, S: Moore, Y: 31, N: 0, A: 1 (PASSES)



June Interim Meeting

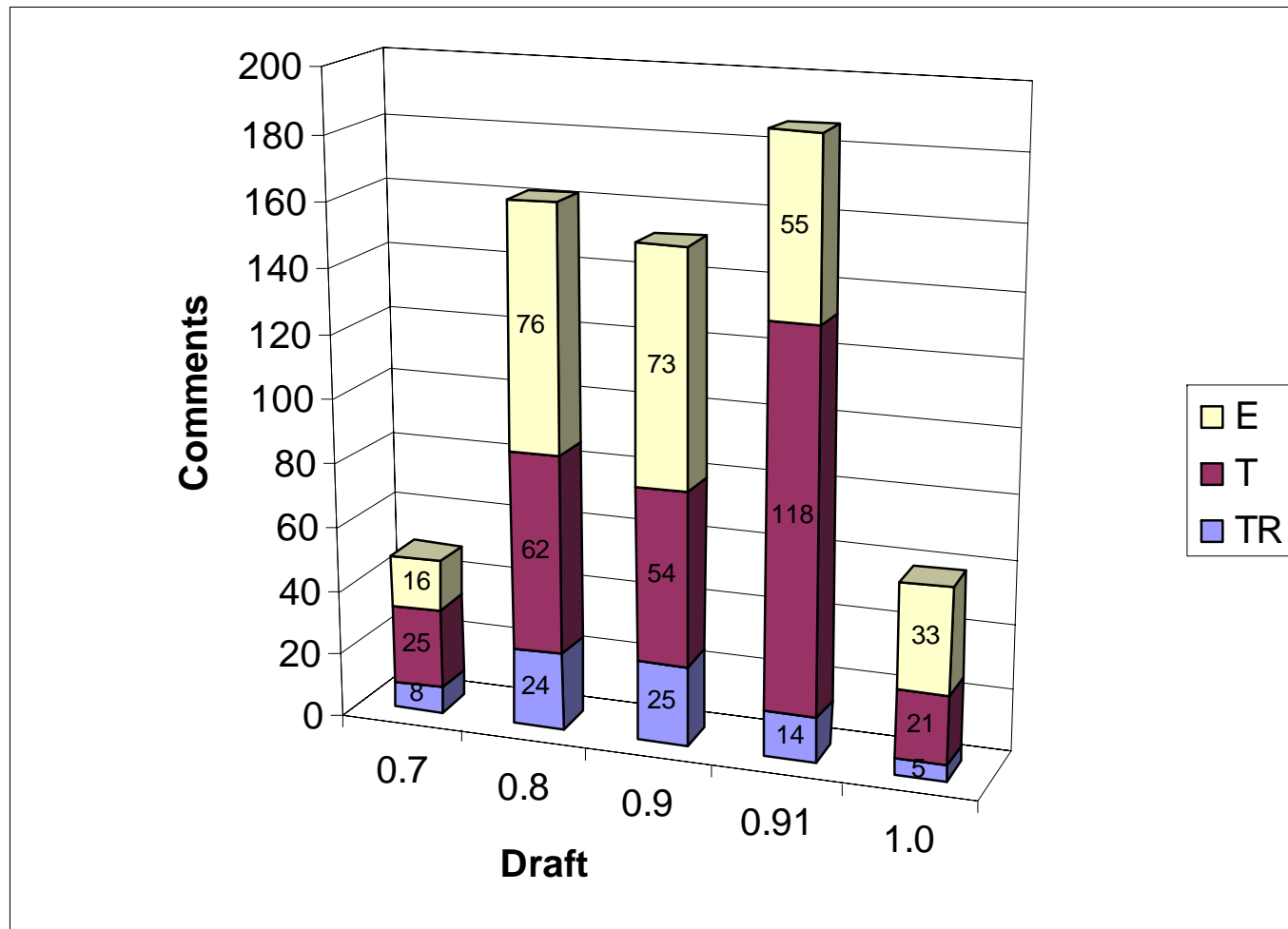
- June 21-23, Minneapolis, MN
 - Hosted by Xilinx
- Resolved 187 comments against Draft 0.91
- Authorized pre-circulation of Draft 1.0 in anticipation of requesting Working Ballot.



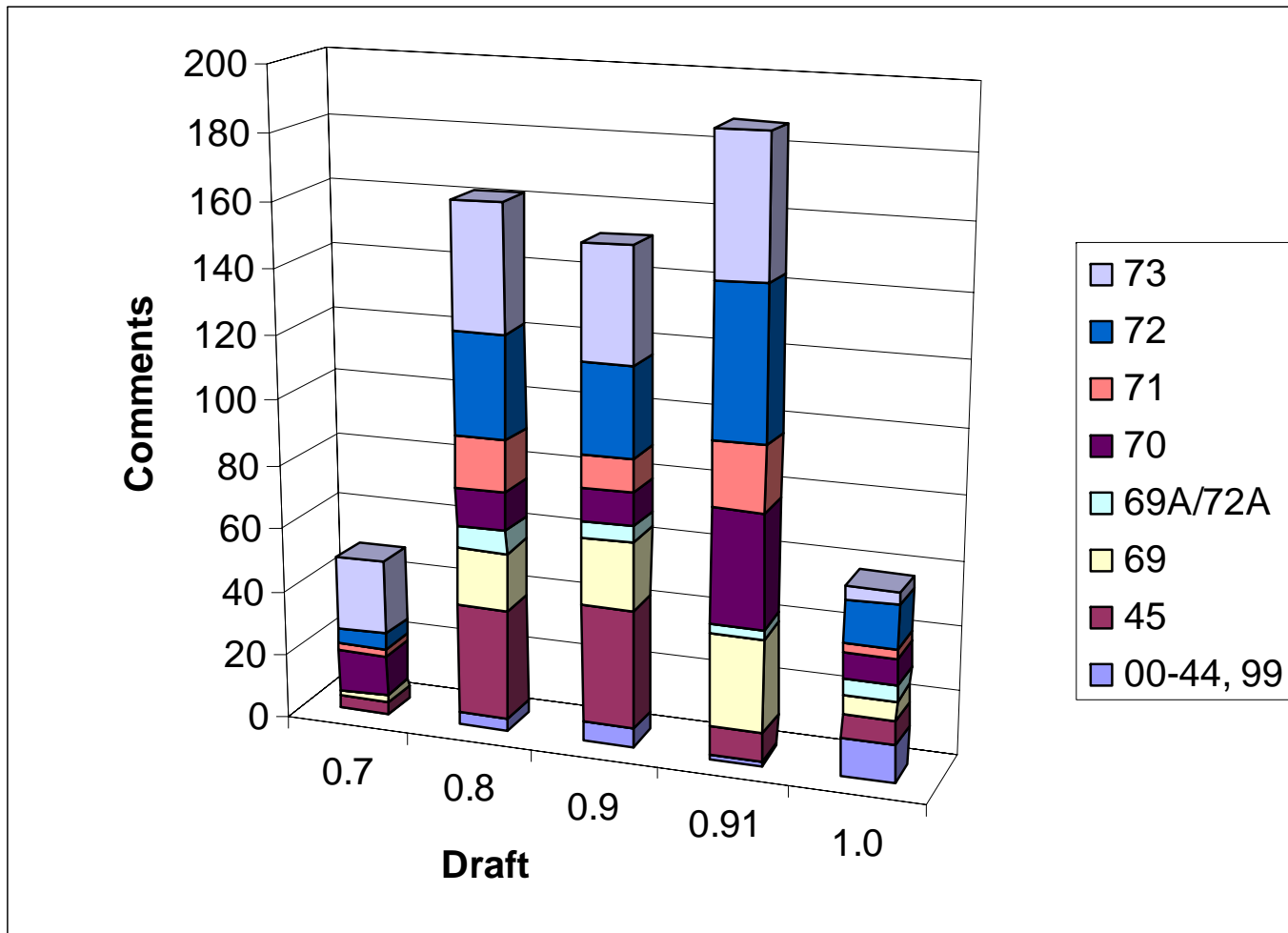
June Interim Motion

- Accept proposed comment resolutions (with editorial comments to be resolved by the editor) and instruct the editor to generate Draft 1.0.
- Grant editor license to make necessary editorial changes not addressed by editorial comments.
- Pre-submit Draft 1.0 to IEEE 802.3 in anticipation of requesting WG ballot at the July plenary.
 - M: D'Ambrosia, S: Mellitz, Y: 24, N: 0, A: 0 (PASSES)
- Draft 1.0 pre-circulated to the IEEE 802.3 WG on July 1...

Comment History by Type



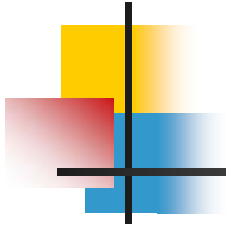
Comment History by Clause





Goals for this Meeting

- Resolve comments against IEEE P802.3ap Draft 1.0.
- Prepare draft for Working Group ballot.



Thank you!