Seq. #	Section number	your ini-tials	Cmnt type E, e, T, t	Part of NO vote	Comment/Rationale	Corrected Text	Disposition/Rebuttal

Resolutions of Ballot on Draft Standard D4.0

General comments, comments on first clauses and on Annexes WITH RESPONSES

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1	Table 47	al	e		**Delete the period after the "uS" in order to provide consistency**		**(for PHY group)**
2	Table 38 & Table 42	al	e		**Begin these tables on new pages so that each entire table is contained on a single page.**		**(for PHY group)**
3	Table 28	al	e		**Delete the two blank rows from the table.**		**(for PHY group)**
45	General	cr		n	My objections to the access method of the draft standard have already been described. It is clear to me that there will be serious difficulties if equipment practicing this Standard are used at high traffic levels and geographic user densities. There is no possibility of these concerns being further addressed now. My choice is then to resist acceptance on principle, or accept for the value that can be obtained. The great value of this document is that it defines what the computerists believe to be the essence of upward compatibility for the radio system. This value is present beyond the specifics of the radio air interface, and may apply to other efforts to make other radio phy and mac. The document is at last adequate for issue apart from the difficulties that I have presented. My "yes" vote is based on the opinion that it is better to have it issued than to have nothing at all to show for the tremendous effort expended.		**closed without action (which constitutes acceptance, since no action was requested!)**

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					Those who have been on the committee from the beginning may well reflect on whether they think LBS is simple, and whether infrastructure is an evil. About one-third of the document would evaporate were it not for the complications of managing channel selection for the FH phy. Simple aloha systems will appear on the market and the polite stations will defer a long time. Almost all successful products will depend on an access point repeater. The myth of being able to bridge from any connected station to another network no longer has proponents as it did in the first two years.		
6	General	dre	E		Change "Independent BSS" to "Autonomous BSS". Also change "IBSS" to "ABSS". Rationale: "Infrastructure BSS" and "Independent BSS" are too similar and easily subject to misunderstanding, especially when abbreviated to IBSS. Using the word Autonomous instead of Independent ensures that the resulting two terms (Infrastructure and Autonomous) are clearly different and distinct. (As an aside, ABSS resembles the previously used term of "ad hoc BSS".)	[Use global search and replace.]	DECLINED the current usage is consistent throughout the draft.
7	General	jz	E		Replace every occurrence of "IBSS" with "ABSS" and every occurrence of the phrase "Independent BSS" with "Autonomous BSS". Also, start using "IBSS" as an abbreviation for "Infrastructure BSS". I know we've all just finally gotten used to IBSS, but it makes more sense to have "I" for "Infrastructure" and "A" for "Autonomous" – this way ATIM makes sense as Autonomous TIM, and we don't have the outdated term "Ad hoc TIM". It would be more consistent.		DECLINED the current usage is consistent throughout the draft.
8	**General**	**jb**	**E**	**Y**	**My company believes the risk of undisclosed patentable material is too great. It should be emphasized that we are fully supportive of the standard and want it completed, but we also believe that a standard that contains unknown patentable**	**Have all companies involved with creating the 802.11 specification sign a disclosure identifying any patents they have that are embedded or implied in the 802.11 standard.**	**Closed by WG vote as an invalid NO vote comment. This is (a) not technical, (b) makes a procedural request, not a request to change the draft, (c)**

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					material will cause unforeseen grief for companies developing 802.11 compliant radios and, perhaps, even be detrimental to the standard itself.		**been handled by the 802.11 chair in a direct response.**
9	General	dw	t	n	The proposed draft document does not specify how access points from different vendors will interoperate. Mobile stations need to roam accross cells - cells that are generated from different vendors. An 802.11 compliant interoperability protocol needs to be defined.		**DECLINED The solution to this problem is beyond the scope of this standard. This standard deals with the operation of the MAC and PHY between stations on the wireless medium.**
10	Forward	kba	e		**"Voting members" list is out of date.**	**See Vic Hayes**	**ACCEPTED / Editorial Will be updated by editors prior to release of next draft.**
11	Figure 75	al	e		**The waveform is discontinuous... need to fix it.**		**(for PHY group)**
12	Figure 68 & 14.3.3.2 .1	al	e		**The term "PMD_DATA.ind(first)" is not explained in the text. PMD_DATA.ind(DATA) is not introduced until 14.5.5.2. Recommend adding mention of this and a reference to 14.5.5.2 in 14.3.3.2.1**		**(for PHY group)**
13	Figure 68	al	e		**Figure 68 does not appear to be referenced anywhere from the text. Suggest adding a reference in the appropriate location.**		**(for PHY group)**
14	Figure 64	al	e		**In the "Ramp On" box, there is a comma instead of a period**	**PMD_RAMP.req**	**(for PHY group)**
15	D Annex D, 13.1.4.21,	vh	e	n	**Inconsistency**	**In section 13.1.4.21 we defined aSuprtDataRates, whereas in Annex D we talk about aSuprtDataRatesTxValue and aSuprtDataRatesRxValue. Please bring in line.** **Also, the units may be better defined in 100 kbit/s rather than Mbit/s to be consistent with the DS PLCP header.**	**(for PHY group)**
16	D Annex	vh	e	n	**Missing specifications**	**aSleepTurnonTime and the 4 aCCAWatchDog attributes are not**	**(for PHY group)**

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	D, 13.1.4					defined in 13.1.4. Please resolve.	
17	D Annex D, 11.4.4.23	vh	e	n	Incomplete definition?	in aTotalBackoffTime we wander whether we need to include pre- and post-backoff.	DECLINED The definition is adequate, as is. The station is either in backoff and this counter applies, or not in backoff and this counter does not apply.
18	D Annex D, 11	vh	e	n	inconsistent attributes in MIB and ASN1 descr	aHandshakeoverhead is not defined in MIB (section 11.4.4.2...)	Editorial / Consistency Deleted from ASN.1. ACCEPTED
19	D Annex D, 1	vh	e	n	inconsistent attributes in MIB and ASN1 descr	aRateFactor in ASN-1 descr is not defined in MIB; may have been renamed into aMaxRate	Editorial / Consistency RateFactor changed to MaxRate as in draft 3.2 ACCEPTED
20	D Annex D page 359, 11.4.4.1 .20	rn	e	n	The default value mismatch for the attribute aPassiveScanDuration (100 in 11.4.4.1.20 and 50 in annex D page 359)		Editorial / Consistency Correct value is 100. Annex made consistent. ACCEPTED
21	D Annex D	vh	e	n	inconsistent use of units	page 405 para 2 and para 3 (2 times each) change to Mbit/s or kbit/s	Editorial ACCEPTED.
22	D Annex D	vh	e	n	inconsistent attributes in MIB and ASN1 descr	the annex describes aCTSTime, whereas the section 11 defines aCTSSize and aCTSTimeout. Bring in line please	Editorial / Consistency CTSSize is the correct usage. Name and definition corrected. ACCEPTED
23	D Annex D	vh	e	n	inconsistent attributes in MIB and ASN1 descr	aACKTime in the annex is called aACKSize in section 11	Editorial / Conistency ACKSize is the correct usage. Name and definition corrected. ACCEPTED
24	D Annex D	vh	e	n	missing definition	aBSSBasicRateSet is not defined in Annex D (11.4.4.1.32)	ACCPTED, but not yet incorporated — need someone to write the ASN.1

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25	D Annex D	vh	e	n	redundant line	remove on page 385 -- GET-REPLACE	Editorial ACCEPTED
26	D Annex D	vh	e	n	Name description unclear	aTransmittedFrameCount seems to mean MPDU. Else what is a frame in this context?	DECLINED The counter is fully described in the ISO document.
27	D Annex D	vh	e	n	inconsistent capitalization	change aICVerrorCount to aICVErrorCount on two places: at definition and 2 at definition of TypeagPrivacyGrpEntry	Editorial ACCEPTED
28	D Annex D	vh	e	n	Lost reference	in the definition of aMaxMPDUTime, the referenced aDIFS is not existing.	Editorial ACCEPTED
29	D Annex D	vh	e	n	mistakes in beginning of annex	Reference to D3 should be repaired (this is mentioned on several places; may be we should remove this changing name). In the "begin" statement change IEEE800dot 11 into IEEE802dot11.	Editorial ACCEPTED
30	D Annex D	vh	e	n	inconsistent attributes in MIB and ASN1 descr	In the PHY attribute templates, make all attributes consistent (without the underscore) as well in the commentslines as in the references to other attributes.	(for PHY group)
31	D Annex (ASN.1)	db	t	n	In May the group adopted the ASN.1 MIB definitions - the definitions are incomplete per editors notes in clause 11 - bring the ASN.1 code up to consistency with Clause 8. As this is not a technical change from what was adopted I view the work as editorial.		Editorial ACCEPTED.
32	C Annex C	mif	E	n	The state machines which appear in the Annex are too far out of date to be worth including, since they will raise more questions than they will clarify.	Replace those state machines with the ones from document 96/002r1 (which, hopefully, I will submit at the July meeting).	DECLINED Closed by plenary motion 45, which removed the old MAC state machines and replaced

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							them with a "TBD" Editorial because state machines are informative
33	C Annex C	db	E	n	As the Annex C (MAC state machines) have not been updated for D4.0 as promised, they are getting further and further away from matching the normative draft text. One wonders at what point the divergence is sufficient to render them of the class "more harm than good"? In my opinion, they have reached that point - hence I recommend removing normative Annex C entirely		DECLINED Closed by plenary motion 45, which removed the old MAC state machines and replaced them with a "TBD" Editorial because state machines are informative
34	A4.6	sab	E	n	Add item references to DS PICS then key mandatory conditionals to item references, eg Antenna port is optional so this is O, then 50 ohm impedance in mandatory if antenna port is present so make this (item ref):M which means its mandatory if (item ref) was ticked as yes (see MAC PICS)	Correct editorial Suggest use of DS(major).(minor) for item references to match MAC PICS style	accepted, editorial change (BY DS PHY group)
35	A4.6	sab	e	n	All mandatory support rows should have Yes and No boxes , all optionals should have Yes, No, N/A (see MAC PICS)	Complete column	accepted, editorial change (BY DS PHY group)
36	A4.5	sab	t	n	The following PICS items are of dubious value since they refer to abstract primitives that may not exist in an actual implementation (and if they do exist then they will not be exposed in a standard manor): TXVECTOR parameters (14.1, 14.2) RXVECTOR parameters (14.3, 14.4) Primitives (14.13, 14.22, 14.24, 14.26, 14.27)	Remove from PICS	(for PHY group)
37	A4.4.5, 14.8.2	sab	t	n	SIFS time in the FHSS MIB has a tolerance of +2/-3. This is now incorrect as a motion at the last meeting was approved to make this tolerance +/10% of slot time - which is +5/-5 in the FHSS case. The PICS is incorrect too	Change to +5/-5, or leave out altogether since specified in 9.2.3.1	(for PHY group)
38	A4.4.2	sab	e	n	Its CF not FC as a conditional prefix in this table for ConFiguration	Correct editorial	Editorial ACCEPTED.

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39	**A4.4.1**	**sab**	**e**	**n**	**There are two PC3.5's**	**Renumber**	**Editorial ACCEPTED.**
40	**A4.4.1**	**sab**	**t**	**n**	**There is no PICS statement concerning multiple outstanding MSDUs (clause 9.8)**	**Probably want to add two items: Support for Multiple Outstanding MSDUs as optional, then a conditional on this for MSDU transmission restrictions that is mandatory**	**Editorial ACCEPTED.**
41	**A.4.x**	**db**	**T**	**n**	In the PICs annex; I believe that because of the syntax specified that conditionals shall not be named starting with the letter "C". The parsing syntax in the text is: <C><predicate>:<S>, where "C" means "conditional. Hence a predicate name of "CF1" for example can not be differentiated from <C> "predicate F1". The easiest way to fix this is to change all occurrences of CF1, CF2, CF3, CF4 and CF5 to F1 thru F5 respectively. Or I misunderstood the syntax explanation (which is possible).		**DECLINED Predicate definition changed.**
42	**A.4.6**	**vh**	**e**	**no**	**inconsistent use of units**	**change 6 times to Mbit/s or kbit/s**	**Editorial ACCEPTED**
43	**A.4.5 A.4.6 A.4.7**	**db**	**E**	**n**	The PHY portions (A.4.5, A.4.6 and A.4.7) of the PICs in Annex A are not in the correct format for a PICs. Those sections should be reworked into the proper PICs format. I believe this to be a (non-trivial) editorial job.		**(for PHY group)**
44	**A.4.4.2**	**db**	**E**	**n**	In A.4.4.2 I think there typos - the predicates listed as FC1 and FC2 in FR1, FR2, FR3, FR4, FR5, FR8 and FR12 should be CF1 and CF2 respectively. I think this is an editorial error as the predicates appear to be dependent on the AP or STA conditionals.		**Editorial ACCEPTED**
45	**A Annex A**	**mif**	**t**	**n**	**There are several areas where the coverage by the PICS is marginal or prone to misinterpretation. I recommend that several entries in the PICS, especially some related to the point coordination function, be**	**I will bring a list of the items I believe need rewording to the July meeting.**	**Editorial / Consistency MAC PICS expanded to properly show that contention free polling is a separate option,**

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					reworded to more correctly reflect the intent of the specifications in the MAC standard.		dependent on the presence of contention free frame delivery, but not mandatory function of a point coordinator.
46	A	sab	E	n	Bring all PICS sections together in style - it a complete mess at present. Biggest offenders are the FH and IR - MAC and DS are far more similar. FH PICS has conditional with no predecate (item) references, verbose text and (see other comments) items of dubious value.	Redraft FH and IR PICS in the style of the MAC/DS PICS - watch for DS suggested corrections by same commenter. If the editorial review team like the MAC PICS then I'd be happy to bring this section all into line	(for PHY group)
47	1.2	rn	T	n	The text says "Specifically the 802.11 standard: Describes the functions and services required by an 802.11 compliant device to operate within ad-hoc and infrastructure networks as well as the aspects of station mobility(transition) within these networks." However the Reassociation service which is required to move a current association from one AP to another is not defined (sec 5.4.2.3). Without this defnition in the standard, there could be no interoperability in an infrastructure BSS case.	I propose that we define the re-association service required to support mobility across BSS's in infrastructure case and incorporate as an Annex in the standard.	DECLINED The solution to this problem is beyond the scope of this standard. This standard deals with the operation of the MAC and PHY between stations on the wireless medium.