IEEE P802.11  
Wireless LANs

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| Resolution for CIDs in 9.3.1.23 | | | | |
| Date: October 30, 2018 | | | | |
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Abstract

This submission proposes resolutions for comments received for TGax LB233 (18):

15013, 16194, 16273, 17072, 16380, 16317, 16022, 17104, 15950, 17105, 15873, 15848, 16983, 17106, 16318, 16541, 17035, 17036

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: Updated the bit reference in figures for SS Allocation and RA-RU Information subfields
* Rev 2: Updated based on feedback when the doc was presented (11-12-18 PM2)
  + Revised resolutions for CIDs 16317 & 16318
  + Includes several editorial fixes suggested by Mark Rison
* Rev 3: Minor revision to CID 16317 (based on feedback from Zhou)
* Rev 4: Minor revision to CID 16318 (based on feedback from Liwen)
* Rev 5: Minor revision – all changes after Rev2 marked in green so that they are easy to identify

Interpretation of a Motion to Adopt

A motion to approve this submission means that the editing instructions and any changed or added material are actioned in the TGax Draft. This introduction is not part of the adopted material.

***Editing instructions formatted like this are intended to be copied into the TGax Draft (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents).***

***TGax Editor: Editing instructions preceded by “TGax Editor” are instructions to the TGax editor to modify existing material in the TGax draft. As a result of adopting the changes, the TGax editor will execute the instructions rather than copy them to the TGax Draft.***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **CID** | **Commenter** | **Pg / Ln** | **Section** | **Comment** | **Proposed Change** | **Resolution** |
| 15013 | Abhishek Patil | 96.21 | 9.3.1.23 | Description of RA field setting for TF is scattered across several paragraphs | Either consolidate all the RA field paragraph to a single paragraph or have individual bullets for each condition (preferred option) | **Revised**  Agree with the comment.  **TGax editor please make changes as shown in doc 11-18-1456r5 with the tag 15013** |
| 16194 | Mark RISON | 99.46 | 9.3.1.23 | "Values 0 to 60 map to -20 dBm to 40 dBm" is not clear | Change the cited text to "The AP Tx power in dBm, plus 20" | **Revised**  Agree with the comment. D3.2 already has the requested by the comment.  **TGax editor, no further changes are needed** |
| 16273 | Mark RISON | 99.60 | 9.3.1.23 | There is no value, just confusion/verbosity, in having a Packet Extension subfield itself containing two subfields | Just show the two subfields directly in the Figure and remove references to a Packet Extension subfield (the REVISED for CID 12875 seems to have been for a different comment) | **Accept**  **TGax editor, please make changes as suggested by the comment.** |
| 17072 | Yoshio Urabe | 100.56 | 9.3.1.23 | Figure 9-52g (User Info field) does not apply to NFRP. | Add "except for an NFRP Trigger frame (9.3.1.23.8 NDP Feedback Report Poll (NFRP) variant)" after "The User Info field is defined in Figure 9-52g (User Info field)". | **Revised**  Agree with the comment.  **TGax editor please make changes as shown in doc 11-18-1456r5 with the tag 17072** |
| 16380 | Mark RISON | 100.63 | 9.3.1.23 | "An AID12 subfield set to 4095 is reserved to indicate start of Padding field", "The Padding field of the Trigger frame, if present, is at least two octets in length and is set to all 1s. The start of the Padding field is identified by the value 4095 in the AID12 subfield of a User Info field that would otherwise be present." -- the requirements should not be duplicated | Delete the first cited text | **Revised**  The duplicated text has been deleted and the spec text revised to indicate that AID12=4095 is a special value to indicate start of Padding field.  **TGax editor please make changes as shown in doc 11-18-1456r5 with the tag 16380** |
| 16317 | Mark RISON | 91.11 | 9.3.1.23 | "A similar ordering is followed for 106-tone RU, 242-tone RU and 484-tone RU." is a cop-out | Need to specify fully, including any values not used (e.g. "The value 53 indicates 106-tone RU1 [-122:-17], the value 54 indicates 106-tone RU2 [17:122], and the values 55-60 are not used."). Ditto at line 22 | Revised  Agree with the comment. The spec should clearly call the possible combinations. Replaced Table 9-31g with a new table which lists the various permutations for RU allocation.  **TGax editor please make changes as shown in doc 11-18-1456r5 with the tag 16317** |
| 16022 | Mark RISON | 101.16 | 9.3.1.23 | "The first bit, B12," -- the first bit of the RU Allocation subfield is B0. In fact, this is true of all subfields! | Change the cited text at the referenced location to "B0 of the RU Allocation subfield", and delete ", B19-B13," at line 19. At line 48 change "B12" to "B0 of the RU Allocation subfield" (2x), and ditto at 102.21, 102.22, 106.30, 106.31. At line 51 delete "indices B19-B13" and prepend "the" before "subsequent". At 101.54, 102.1, 102.10, 102.21 change "B19-B13" to "B7-B1 of the RU Allocation subfield". At 106.35/40/44/48/56/61/65 change "B19-B13" to "B7-B1" | **Accept**  **TGax editor please make changes as shown in doc 11-18-1456r4 with the tag 16022** |
| 17104 | yujin noh | 101.17 | 9.3.1.23 | duplicated description on B12 at L17 and L49. reorganize it without duplication. |  | Revised  Agree with the comment. The duplicate spec text was deleted.  **TGax editor please make changes as shown in doc 11-18-1456r5 with the tag 17104** |
| 15950 | Mark RISON | 101.24 | 9.3.1.23 | "The encoding of B19-B13 of the RU Allocation subfield" -- no, it's the encoding of those bits of the User Info field | Change the heading for Table 9-25h to "The encoding of B7-B1 of the RU Allocation subfield" | Revised  Agree with the comment. The title of the (new) table reflects the change asked by the comment.  **TGax editor please make changes as shown in doc 11-18-1456r5 with the tag 15950** |
| 17105 | yujin noh | 103.26 | 9.3.1.23 | The starting spatial stream can not be always 1 on each RA-RU (except for one RA-RU assigned). The starting stream index for the STA is computed by summing the number of spatial stream (here 1) prior to RA-RU(s) sort of. |  | **Reject**  The RA-RUs are used in OFDMA fashion not MU-MIMO, therefore the start of SS will be 1 for all of them. |
| 15873 | Liwen Chu | 103.34 | 9.3.1.23 | For UL MU with single STA to transmit HE TB PPDU, the target RSSI can be any reasonable value since there is no interference from the other transmission of HE TB PPDU. Add a additional value to indicate that STA can transmit HE TB PPDU by using any power. | As in the comment | **Reject**  It is true that for single STA transmitting HE TB PPDU interference is not an issue. However, the MCS of the HE TB PPDU is specified by the AP. Therefore, specifying target RSSI can help to ensure the STA to transmit with enough power for that MCS. Also note that target RSSI already has a special value (127) that request STA to transmit at its max power of the assigned MCS. |
| 15848 | Laurent Cariou | 104.02 | 9.3.1.23 | The equations given for computing the length of the MAC trigger frame padding needed are only valid for the BCC case and do not account for LDPC. Either the equations should be removed completely and the length calculation should be left to the implementer in all cases to meet the requirement from 27.5.3.2.2 or explanatory text should be added to clarify these equation are examples only valid for the BCC case. | As in comment | **Revised**  Agree with the comment. The equations and spec text in clause 9 doesn’t cover the random access case or take into account the duration/size of subsequent user info fields in the frame. Further, it doesn’t account for LDPC coding. Section 27.5.3.2.2 provides comprehensive rules on how an AP can meet a particular STA’s padding requirements. These rules also cover random access, presence of subsequent user info fields and coding type (LDPC or BCC). In addition, the clause also accounts for and allows other forms of padding. As such the equations and the discussion in clause 9 is incomplete and redundant in some cases (e.g., BCC coding) therefore deleted.  **TGax editor please make changes as shown in doc 11-18-1456r5 with the tag 15848** |
| 16983 | Xiaogang Chen | 104.15 | 9.3.1.23 | eq 9-0b and eq 9-0c don't consider LDPC coding in which one CW could include both user info field and padding field. such that the padding bits cannot gain processing time to process the trigger frame. | Since the number of padding bits depends on MCS, and it's case by case regarding if user info field and padding field belong to the same LDPC CW or not, it's better to remove the equations and leave the padding bits to implementation. | **Revised**  Please see resolution to CID 15848 |
| 17106 | yujin noh | 104.29 | 9.3.1.23 | For padding field, it missed the case for RA-RU for unassociated STAs. |  | **Revised**  Please see resolution to CID 15848 |
| 16318 | Mark RISON | 96.03 | 9.3.1.23.4 | "If the BW subfield indicates 80 MHz, 80+80 MHz or 160 MHz, then" -- all this stuff is not really BW-dependent. It also applies when the BW subfield indicates 20M/40M, it's just that some values are not used | Replace from "If the BW subfield indicates 20 MHz, then the primary 20 MHz channel is indicated by setting B19-B13 of the RU Allocation subfield to 61." to the end of the subclause with "The primary 20 MHz channel is indicated by setting B19-B13 of the RU Allocation subfield to 61 when the primary 20 MHz channel is the only 20 MHz channel or the lowest frequency 20 MHz channel in the primary 80MHz channel, 62 when the primary 20 MHz channel is the second lowest frequency 20 MHz channel in the primary 40 MHz or 80MHz (if present), 63 when the primary 20 MHz channel is the third lowest frequency 20 MHz channel in the primary 80MHz (if present), and 64 when the primary 20 MHz channel is the fourth lowest fre- quency 20 MHz channel in the primary 80 MHz (if present). The primary 40 MHz channel is indicated by setting B19-B13 of the RU Allocation subfield to 65 when the primary 40 MHz channel is the only 40 MHz channel or the lowest frequency 40 MHz channel in the primary 80 MHz channel and 66 when the primary 40 MHz channel is the second lowest frequency 40 MHz channel in the primary 80 MHz channel (if present). The primary 80 MHz channel is indicated by setting B19-B13 of the RU Allocation subfield to 67. The primary and secondary 80 MHz is indicated by setting B19-B13 of the RU Allocation subfield to 68." | **Revised**  Agree that there is duplication of text and some confusion with respect to how the values are set. Added a figure to clarify the assignment.  **TGax editor please add new figure as shown in doc 11-18-1456r5 with the tag 16318** |
| 16541 | Patrice Nezou | 107.01 | 9.3.1.23.5 | There is no description for the BSRP format. | Add description or at least a cross reference to the corresponding clause. | **Reject**  As stated in 9.3.1.23, the subsections (.1 thru .8) provide the format for the trigger variant. It doesn’t need to get into the details of the usage of the Trigger frame variant. |
| 17035 | Yongho Seok | 96.50 | 9.3.1.23 | UL Length, UL BW, UL STBC, UL Packet Extension, UL Spatial Reuse Trigger frame solicits the UL transmission. Why is "UL" in the field name needed? A concern is that it cause a lot of inconsistency error about the field name. See Page 287 Line 40, 43, 51. | Fix field name inconsistency throughout the draft. | **Revised**  Fixed the incorrect field names as pointed out by the comment.  **TGax editor please make changes as shown in doc 11-18-1456r5 with the tag 17035** |
| 17036 | Yongho Seok | 101.04 | 9.3.1.23 | UL FEC Coding Type, UL MCS, UL DCM, UL Target RSSI Trigger frame solicits the UL transmission. Why is "UL" in the field name needed? A concern is that it cause a lot of inconsistency error about the field name. See Page 106 Line 23. | Fix field name inconsistency throughout the draft. | **Revised**  The errors pointed out by the comment are already fixed in D3.2  **TGax editor, not further changes are needed** |
|  |  |  |  |  |  |  |

* **Trigger frame format**

***TGax Editor: Please update the following paragraph in this section as shown below:***

[15013]The RA field of the Trigger frame is set as follows:

* If the Trigger frame is not a GCR MU-BAR or NFRP or an MU-RTS Trigger frame, has one User Info field and the AID12 subfield of the User Info field contains the AID of a non-AP STA, then the RA field is set to the address of that STA.
* If the Trigger frame has at least one User Info field with the AID12 subfield indicating an RA-RU then the RA field is set to the broadcast address.
* If the Trigger frame is not a GCR MU-BAR Trigger frame and has more than one User Info field, then the RA field is set to broadcast address
* If the Trigger frame is an NFRP Trigger frame or an MU-RTS Trigger frame then the RA field is set to the broadcast address.
* If the Trigger frame is a GCR MU-BAR Trigger frame then the RA field is set to the MAC address of the group for which reception status is being requested.

***TGax Editor: Please update the following paragraph in this section as shown below:***

The User Info field is defined in Figure 9-63e (User Info field) for all Trigger frame variants except for the NFRP Trigger frame, which is defined in 9.3.1.23.8 (NDP Feedback Report Poll (NFRP) variant).[17072]

***TGax Editor: Please update the following paragraphs in this section as shown below:***

[16380, #ed]The AID12 subfield of the User Info field identifies zero or more STAs for which the User Info field is intended. The subfield is encoded as follows:

* Value 0 indicates that the User Info field is the first of one or more contiguous RA-RUs for associated STAs
* Values 1 to 2007 indicates that the User Info field is addressed to the STA with AID equal to the value carried in the field
* Value 2045 indicates that the User Info field is the first of one or more contiguous RA-RUs for unassociated STAs
* Value 2046 indicates that the User Info field identifies an unallocated RU
* Value 4095 indicates start of the Padding field
* All other values are reserved

[#ed](#11738, #13846)[17104][16317]

[16317]



[16317, 15950]**Table 9-31g – The encoding of B7–B1 of the RU Allocation subfield**

|  |  |  |  |
| --- | --- | --- | --- |
| **Value of B7-B1** | **UL BW subfield indicates** | **RU tone size** | **Description** |
| 0 – 8 | 20 MHz | 26-tone | Denotes RU1 thru RU9 respectively |
| 9 – 36 | Reserved |
| 0 – 17 | 40 MHz | Denotes RU1 thru RU18 respectively |
| 18 – 36 | Reserved |
| 0 – 36 | 80 or 80+80 or 160 MHz | Denotes RU1 thru RU37 respectively for each 80 MHz segment |
| 37 – 40 | 20 MHz | 52-tone | Denotes RU1 thru RU4 respectively |
| 41 – 52 | Reserved |
| 37 – 44 | 40 MHz | Denotes RU1 thru RU8 respectively |
| 45 – 52 | Reserved |
| 37 – 52 | 80 or 80+80 or 160 MHz | Denotes RU1 thru RU16 respectively for each 80 MHz segment |
| 53 – 54 | 20 MHz | 106-tone | Denotes RU1 and RU2 respectively |
| 55 – 60 | Reserved |
| 53 – 56 | 40 MHz | Denotes RU1 thru RU4 respectively |
| 57 – 60 | Reserved |
| 53 – 60 | 80 or 80+80 or 160 MHz | Denotes RU1 thru RU8 respectively for each 80 MHz segment |
| 61 | 20 MHz | 242-tone | Denotes RU1 |
| 62 – 64 | Reserved |
| 61 – 62 | 40 MHz | Denotes RU1 and RU2 respectively |
| 63 – 64 | Reserved |
| 61 – 64 | 80 or 80+80 or 160 MHz | Denotes RU1 thru RU4 respectively for each 80 MHz segment |
| 65 | 40 MHz | 484-tone | Denotes RU1 |
| 66 | Reserved |
| 65 – 66 | 80 or 80+80 or 160 MHz | Denotes RU1 and RU2 respectively for each 80 MHz segment |
| 67 | 80 or 80+80 or 160 MHz | 996-tone | Denotes RU1 for each 80 MHz segment |
| 68 | 80+80 or 160 MHz | 2x996-tone | Consists of two 996-tone RUs, each located at each half of the PPDU bandwidth for 160 MHz and 80+80 MHz HE PPDU formats. |
| 69–127 |  | | Reserved |
| NOTE—These values are in binary form in PHY (for example, see Table 28-24 (RU Allocation subfield)) | | | |

[16317]The RU Allocation subfield along with the UL BW subfield identifies the size and the location of the RU. [16022, 17104]For a 20 MHz, 40 MHz and 80 MHz PPDU, bit B0 of the RU Allocation subfield is set to 0. For an 80+80 MHz and 160 MHz PPDU, B0 of this subfield is set to 0 to indicate that the RU allocation applies to the primary 80 MHz channel and set to 1 to indicate that the RU allocation applies to the secondary 80 MHz channel.(#11915, #Ed) [16022, 16317, 15950]remaining of this subfield731gB7B1

* For a 20 MHz PPDU, the mapping of B7-B1 of the RU Allocation subfield follows the RU index in Table 28-6 (Data and pilot subcarrier indices for RUs in a 20 MHz HE PPDU) in increasing order.
* [16317][16022]For a 40 MHz PPDU, the mapping of B7-B1 of the RU Allocation subfield follows the RU index in Table 28-7 (Data and pilot subcarrier indices for RUs in a 40 MHz HE PPDU) in increasing order.
* [16317][16022]For an 80 MHz, 160 MHz and 80+80 MHz PPDU, the mapping of B7-B1 of the RU Allocation subfield follows the RU index in Table 28-8 (Data and pilot subcarrier indices for RUs in an 80 MHz HE PPDU) in increasing order.
* [16317][16022]For a 160 MHz and 80+80 MHz PPDU, B7-B1 is set to 68(#12223) and B0 is set to 1 to indicate a 2996-tone-tone RU(#12165). A non-AP STA ignores B0 for 2996-tone RU indication.(#12376)

[16317]Note – For 20 MHz operating STA the AP ensures that the RU allocation lies within the operating BW of the STA

***TGax Editor: Please add the following new paragraphs before the paragraph starting “If the AID12 field is neither 0 nor 2045… ” [11ax D3.2 P108L30] as shown below:***

[#ed]If the AID12 subfield is neither 0 nor 2045, then bits B26 to B31 of the User Info field is referred to as the SS Allocation subfield.

[#ed]If the AID12 subfield is either 0 or 2045, then bits B26 to B31 of the User Info field is referred to as the RA-RU Information subfield.

***TGax Editor: Please update the following paragraphs in this section as shown below:***

[#ed]The SS Allocation subfield indicates the spatial streams of the HE TB PPDU that is the response to the Trigger frame and the format is defined in Figure 9-52h (SS Allocation subfield format).

|  |  |  |
| --- | --- | --- |
|  | B0 B2 | B3 B5 |
|  | Starting Spatial Stream | Number Of Spatial Streams |
| Bits: | 3 | 3 |
| **Figure 9-63f – SS Allocation subfield(17/1849r2) format** [#ed] | | |

[#ed]The Starting Spatial Stream subfield indicates the starting spatial stream and is set to the starting spatial stream minus one.

[#ed]The Number Of Spatial Streams subfield indicates the number of spatial streams and is set to the number of spatial streams minus one.

[#ed]The RA-RU Information subfield indicates the RA-RU information and the format is defined in Figure 9-52i (RA-RU Information subfield format)(#12163)(17/1849r2).

|  |  |  |
| --- | --- | --- |
|  | B0 B4 | B5 |
|  | Number Of RA-RU | More RA-RU(#12875) |
| Bits: | 5 | 1 |
| **Figure 9-63g – RA-RU Information subfield(17/1849r2) format** [#ed] | | |

***TGax Editor: Please update the following paragraph in this section as shown below:***

The Padding field is optionally present in a Trigger frame to extend the frame length to give the recipient STAs enough time to prepare a response for transmission a SIFS after the frame is received(#12571).[#ed] This field, if present, is at least two octets in length and is set to all 1s. [16380].[15848, 16983, 17106] If the Padding field is present in a Trigger frame, its length is be computed as described in 27.5.3.2.2 (Padding for Trigger frame or frame containing TRS Control subfield).(#12378)

* **MU-RTS variant**

***TGax Editor: Please delete the following paragraph in this section as shown below:***

[15013]***TGax Editor: Please update the following paragraphs in this section as shown below:***

B0 of the RU Allocation subfield is set to 0 to indicate primary 20 MHz channel, primary 40 MHz channel and primary 80 MHz channel. For 160 MHz and 80+80 MHz indication, B0 of the RU Allocation subfield is set to 1.[16022]

[16318]The primary 20 MHz channel is indicated by setting B7-B1 of the RU Allocation subfield to:

* Value 61 when the primary 20 MHz channel is the only 20 MHz channel or the lowest frequency 20 MHz channel in the primary 40 MHz or 80 MHz channel or 80 MHz segment of 80+80/160 MHz (if present).
* Value 62 when the primary 20 MHz channel is the second lowest frequency 20 MHz channel in the primary 40 MHz or 80 MHz or 80 MHz segment of 80+80/160 MHz (if present).
* Value 63 when the primary 20 MHz channel is the third lowest frequency 20 MHz channel in the primary 80 MHz or 80 MHz segment of 80+80/160 MHz (if present).
* Value 64 when the primary 20 MHz channel is the fourth lowest frequency 20 MHz channel in the primary 80 MHz or 80 MHz segment of 80+80/160 MHz (if present).

The primary 40 MHz channel is indicated by setting B7-B1 of the RU Allocation subfield to:

* Value 65 when the primary 40 MHz channel is the only 40 MHz channel or the lowest frequency 40 MHz channel in the primary 80 MHz channel or 80 MHz segment of 80+80/160 MHz (if present).
* Value 66 when the primary 40 MHz channel is the second lowest frequency 40 MHz channel in the primary 80 MHz channel or 80 MHz segment of 80+80/160 MHz (if present).

The primary 80 MHz channel is indicated by setting B7-B1 of the RU Allocation subfield to 67 when primary 80 MHz is the only 80 MHz channel or the lowest 80 MHz channel in the primary 80 MHz channel or 80MHz segment of 80+80/160 MHz (if present).

The primary and secondary 80 MHz is indicated by setting B7-B1 of the RU Allocation subfield to 68.

***TGax Editor: Please add the following figure at the end of this section as shown below:***

***TGax Editor, Visio file for the figure is available in doc: 11-18-1817r1***



**Figure 9-63j1 – Value of B7-B1 of RU Allocation subfield with respect to UL BW subfield in an MU-RTS Trigger frame**[16318]

* **NDP Feedback Report Poll (NFRP) variant**

***TGax Editor: Please delete the following paragraph in this section as shown below:***

[15013]

* **TXVECTOR parameters for HE TB PPDU response to Trigger frame**

***TGax Editor: Please update the following two bullets in the 1st paragraph in this section as shown below:***

[17035]A non-AP STA transmitting an HE TB PPDU in response to a Trigger frame shall set the TXVECTOR parameters as follows:

* The NUM\_STS parameter is set to the number of space-time streams indicated by the Number Of Spatial Streams subfield of the SS Allocation field of the User Info field and UL STBC field in the Common Info field of the Trigger frame.
* The STBC parameter is set to the value indicated by the UL STBC subfield of the Common Info field of the Trigger frame.

***TGax Editor: There are no CIDs associated with the following updates. A new sub-section is added under 27.5.3.3 to capture all the conditions under which a non-AP may not respond to a TF that solicited a TB PPDU from the STA.***

* **Non-AP STA behavior for UL MU operation**
* **General**

A non-AP STA shall not send an HE TB PPDU unless it is explicitly triggered by an AP in one of the operation modes described in this subclause.

The inter-frame space between a PPDU that contains a Trigger frame or frame that includes a TRS Control subfield and the HE TB PPDU is a SIFS.

A non-AP STA shall transmit an HE TB PPDU a SIFS after a received PPDU, if all the following conditions are met, except as indicated in 27.5.3.3.2:

* The received PPDU contains either a Trigger frame (that is not an MU-RTS variant) with a User Info field addressed to the non-AP STA, or an MPDU addressed to the non-AP STA that contains an TRS Control subfield. A User Info field in the Trigger frame is addressed to a non-AP STA if one of the following conditions are met:
* The AID12 subfield is equal to the 12 LSBs of the AID of the non-AP STA and the Trigger frame is sent by the AP with which the non-AP STA is associated with or by the AP corresponding to the transmitted BSSID if the non-AP STA is associated with a nontransmitted BSSID and has indicated support for receiving Control frames with TA field set to the transmitted BSSID by setting the Rx Control Frame To MultiBSS subfield to 1 in the HE Capabilities element that the STA transmits.
* The AID12 subfield is 0, the non-AP STA supports the UL OFDMA-based random access procedure (see 27.5.5 (UL OFDMA-based random access (UORA))) and the Trigger frame is sent by the AP with which the STA is associated.
* The AID12 subfield is 2045, the non-AP STA supports the UL OFDMA-based random access procedure (see 27.5.5 (UL OFDMA-based random access (UORA))), and the non-AP STA is not associated with the AP.
* The CS Required subfield in the Trigger frame is 1 and the UL MU CS condition described in 27.5.3.5 (UL MU CS mechanism) indicates the medium is idle, or the CS Required subfield in a Trigger frame is 0 or the response was solicited by a frame containing a TRS Control subfield.
* The UL MU Disable subfield is 0 and the UL MU Data Disable subfield is 0 in the most recent OM Control subfield (if any) sent by the non-AP STA to the AP or the UL MU Disable subfield is 0 and the UL MU Data Disable subfield is 1 in the most recent OM Control subfield (if any) sent by the non-AP STA to the AP and the frame that is being triggered is an acknowledgment (see 27.8.3 (Transmit operating mode (TOM) indication)).

A non-AP STA addressed by a User Info field in a Trigger frame (i.e., the AID12 subfield is equal to the 12 LSBs of the AID of the non-AP STA) may ignore the remainder of User Info fields in the Trigger frame.

A non-AP STA generates the A-MPDU carried in the HE TB PPDU as defined in 27.5.3.4 (A-MPDU contents in an HE TB PPDU).

**27.5.3.3.2 Conditions for not responding with a TB PPDU**

or cannot be satisfied or cannot be satisfied