Project	**IEEE 802.16 Broadband Wireless Access Working Group <http://ieee802.org/16>**
Title	**Editorial Corrections to PMP region of STC in OFDM PHY**
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Re:	Supporting document for call for contribution for corrigendum document
Abstract	The new two mode definition is difficult to follow. We propose new language that clears up the state information.
Purpose	Adoption in P802.16-2004/Cor 1
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1 Introduction

In section 8.3.5.1 the seventh paragraph is vague:

The STC zone starts from a preamble. The BS can choose between 2 modes of operation:
• The preamble is immediately followed by one or several encoded PHY bursts, with no FCH-STC present, and all bursts of the STC zone shall be described in the regular MAP. There shall be no DLMAP in the STC zone.
• The preamble is immediately followed by ~~and~~ an STC encoded FCH-STC burst, which is one symbol with the same payload format as specified in ~~Table 241~~Table 225. The FCH-STC burst is transmitted at BPSK rate _. It is followed by one or several STC encoded PHY bursts. The first burst in the STC zone may contain a DL-MAP applicable only to the STC zone, in which the DL IEs start time refer to the beginning of the STC zone, including preamble. If DL-MAP is present, it shall be the first MAC PDU in the payload of the burst. The DL map if sent in Burst 1 of the normal frame shall not describe any allocations in the STC region, since these will be described in the FCH-STC and DL-MAP of the STC zone. The STC zone may also contain an UL-MAP, as well as DCD and UCD messages.

In the case that there is STC encoded traffic in a specific frame, *K*, without STC encoded data traffic on the previous frame, *K*-1, the preceding DL subframe, *K*-1, may contain an STC zone at the end of the subframe, in which the STC zone consists of only an STC preamble and FCH-STC with no MAP IE, and STC data.

We propose cleaning up the language with the following editorial change.

2 Outline of Proposed Solution

The portion of the paragraph is rewritten.

3 Proposed Text Changes

Proposed Text Change:
In Section 8.3.5.1 of 802.16REVe/D5, change the text of the seventh paragraph as follows (the strikethrough refers to the original strikethrough in the document and the double strikethrough is the new deletions):

The STC zone always starts with an STC preamble. BS can choose between two modes of operation:

1. No FCH-STC Present: If the regular DL-MAP describes allocations in the STC zone, then the STC zone shall start with an STC preamble ~~The preamble is i~~that may be immediately followed by ~~one or several~~ encoded PHY bursts, with no FCH-STC after STC preamble~~, and all bursts of the STC zone shall be described in the regular MAP. There shall be no DLMAP in the STC zone.~~
2. FCH-STC Present: If the DL-MAP does not describe allocations in the STC zone, then the STC zone shall start with an STC preamble that~~. The preamble~~ is immediately followed by ~~and~~ an STC encoded FCH-STC burst with the same payload format as specified in ~~Table 241~~Table 225. The FCH-STC burst is transmitted at BPSK rate _. It is followed by one or several STC encoded PHY bursts. The first burst in the STC zone may contain a DL-MAP applicable only to the STC zone. The DL IE start times in this DL-MAP refer to the beginning of the STC zone, including STC preamble. If DL-MAP is present, it shall be the first MAC PDU in the payload of the burst. ~~The DL map if sent in Burst 1 of the normal frame shall not describe any allocations in the STC region, since these will be described in the FCH-STC and DL-MAP of the STC zone.~~ The STC zone may also contain an UL-MAP, as well as DCD and UCD messages. The UL-MAP, if present, shall not duplicate or overlap any allocations made in the regular UL-MAP, and the allocation start time shall refer to the beginning of the STC zone. The randomizer and pilot modulation shall be reinitialized at the beginning of the STC zone.

~~3.In the case that there is STC encoded traffic in a specific frame, *K*, without STC encoded data traffic on the previous frame, *K*-1, the preceding DL subframe, *K*-1, may contain an STC zone at the end of the subframe, in which the STC zone consists of only an STC preamble and FCH-STC with no MAP IE, and STC data.~~

Point 3 is changed to be consistent with point 1. The clean version is:

The STC zone always starts with an STC preamble. BS can choose between two modes of operation:

1. No FCH-STC Present: If the regular DL-MAP describes allocations in the STC zone, then the STC zone shall start with an STC preamble that may be immediately followed by one or several encoded PHY bursts, with no FCH-STC after STC preamble.

2. FCH-STC Present: If the DL-MAP does not describe allocations in the STC zone, then the STC zone shall start with an STC preamble that is immediately followed by an STC encoded FCH-STC burst with the same payload format as specified in Table 225. The FCH-STC burst is transmitted at BPSK rate _. It is followed by one or several STC encoded PHY bursts. The first burst in the STC zone may contain a DL-MAP applicable only to the STC zone. The DL IE start times in this DL-MAP refer to the beginning of the STC zone, including STC preamble. If DL-MAP is present, it shall be the first MAC PDU in the payload of the burst. The STC zone may also contain an UL-MAP, as well as DCD and UCD messages. The UL-MAP, if present, shall not duplicate or overlap any allocations made in the regular UL-MAP, and the

allocation start time shall refer to the beginning of the STC zone. The randomizer and pilot modulation shall be reinitialized at the beginning of the STC zone.

3.In the case that there is STC encoded traffic in a specific frame, *K*, without STC encoded data traffic on the previous frame, *K*-1, the preceding DL subframe, *K*-1, may contain an STC zone at the end of the subframe, in which the STC zone consists of only an STC preamble with no MAP IE, and STC data.

Add in [2] Page 120, Line 22

At the end of 10.3.3.1 add a second sentence:

In the case the UL-MAP is included in the STC zone, the allocation start time refers to the beginning of the STC zone including the STC preamble.

4 References

[1] IEEE Std 802.16-2004 Standard for Local and metropolitan area networks Part 16: Air Interface for Fixed Broadband Wireless Access Systems

[2] IEEE P802.16-2004/Cor1/D1 Corrigendum to IEEE Standard for Local and Metropolitan Area Networks - Part 16: Air Interface for Fixed Broadband Wireless Access Systems