

Working Draft Corrigendum No. 1 to A/110A, “Synchronization Standard for Distributed Transmission, Revision A”

1. RATIONALE FOR CHANGE

ATSC Standard A/110A, “Synchronization Standard for Distributed Transmission, Revision A,” was published on 19 July 2005. It recently came to the attention of the responsible ATSC committee that the fixed value specified for the `payload_unit_start_indicator` field in the header of the Operations and Maintenance Packet (OMP), while not contrary to the MPEG-2 Systems protocol, could seem unusual to those familiar with MPEG-2 Systems who do not examine that document very carefully. Since the OMP falls into the area of “private data” from the perspective of MPEG-2 Systems, for which the setting of the `payload_unit_start_indicator` field is undefined by MPEG-2 Systems, it was decided to call attention to that fact in the text of A/110. Consequently, the wording of Section 6.1 (Operations and Maintenance Packet Structure) is changed for that purpose.

Section 7 of A/110A does not follow the ATSC convention for section numbering. Therefore, it is conformed to ATSC practice by renumbering Sections 7.0.x to 7.x. In the remainder of this corrigendum, except where reference specifically is made to the old section numbers, the new section numbers are used.

Additionally in Section 6.1.1.2 (Constraints on OMP `transport_packet` Header Field Values), there is an incorrect reference to a non-existent Section 7.1.2, which is corrected to refer to Section 7.2, and there is a formatting error in the font of the `payload_unit_start_indicator` field name on the third line, which also is corrected.

Similarly, in Section 7.1 (Field Rate Side Channel Data), there is an incorrect reference to non-existent Section 7.1.2, which is corrected to refer to Section 7.2.

In Section 6.1.2 (Operations and Maintenance Packet Payload Structure), in the paragraphs on `OM_type` and `OM_payload`, the first 32 values of `OM_type` are reserved for Distributed Transmission Packets (DTxPs). Examination of the potential applications of DTxPs has shown that a smaller number would suffice, leaving more of the `OM_type` address space for other applications. Consequently, the number of values assigned for use by DTxPs is reduced to 16.

Close examination has revealed that there is an error in one line in Figure 8.1, “Distributed transmission adapter (conceptual)”. Consequently, the figure is replaced with a corrected drawing.

Change instructions are given in *italics*. Text to be added is shown in blue underline. Text to be deleted is shown in ~~red strikethrough~~.

2. CHANGE INSTRUCTIONS

- 1) *Change the language in Section 6.1 (Operations and Maintenance Packet Structure) as shown in the following markup.*

The Operations and Maintenance Packet (OMP) is private data from the perspective of MPEG-2 Systems [3]. The OMP structure can be used to support a variety of operations and maintenance functions in a system. It can have various data structures, depending upon the purposes it serves in specific applications. The first such packet structure defined is the Distributed Transmission Packet.

- 2) *Correct the numbering of Section 7.0.x to 7.x.*

- 3) *Change the language and formatting in Section 6.1.1.2 (Constraints on OMP transport_packet Header Field Values) as shown in the following markup.*

The transport_error_indicator field shall be set to zero except when Section ~~7.1.2~~ 7.2 applies. The transport_scrambling_control field shall be set to zero. The transport_priority and payload_unit_start_indicator fields shall be set to one. The adaptation_field_control field shall be set to '01' (meaning "no adaptation_field, payload only"). The continuity_counter shall increment by one for each occurrence of the OMP, cycling from '0000' to '1111', then beginning again at '0000'.

- 4) *Change the range of values of OM_type available for use by Distributed Transmission Packets in Section 6.1.2 (Operations and Maintenance Packet Payload Structure) from "0x00 to 0x1F" to "0x00 to 0x0F" in two places (once in each of the two paragraphs below Table 6.1).*
- 5) *Change the reference at the start of the third line of the first paragraph in Section 7.1 (Field Rate Side Channel Data) from 7.1.2 to 7.2.*
- 6) *Replace Figure 8.1 with the following drawing.*

