Tables of Correspondence between Message Type definition ofSARPs original 6-bits and Experimental 2-bit

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In our broadcasting test, DFMC SBAS augmentation message is broadcasted via QZSS 2nd and 4th satellites. However, a Preamble and a Message Type (MT) formats of the message are deferent from DFMC SBAS SARPs.

Although, a preamble format is originally defined as 4-bits and also MT format is 6-bits in the DFMC SBAS SARPs, QZSS currently doesn't allow to broadcast the message with 4-bits preamble. It's allowed only with 8-bits preamble same as legacy L1 SBAS. Therefore, we define 2-bits MTs experimentally for broadcasting DFMC SBAS message with the 8-bits preambles and without changing SARPs formats of the other parts of the message.

Experimental formats of preamble and MT are defined

SARPs Original:	<u>4-bits</u> preamble + <u>6-bits</u> MT + augmentation data and CRC part (240-bits)
Experimentally defined:	<u>8-bits</u> preamble + <u>2-bits</u> MT + augmentation data and CRC part (240-bits)

A relationship between the legacy 8-bits preamble and the SARPs 4-bits preamble is as shown in Table 1. Correspondence between 8-bits preamble, 2-bit MT and 6-bit MT is as shown in Table 2.

GPS time	8-bits	4-bits
modulo 6 seconds	Preamble	Preamble
0	0x53	0x5
1	0x9A	0xC
2	0xC6	0x6
3	repeat	0x9
4		0x3
5		0xA

Table1 Relationships between GPS time, 8-bits and 4bits preambles.

Table 2 Correspondence table of 8-bits preamble + 2-bits MT and 6-bits MT.

		8-bits preamble		
		0x53	0x9A	0xC6
2-bits	0	6-bits MT: 34	34	34
Message	1	31	37	47
Туре	2	32	32	32
	3	63	63	63

e.g.) If you receive a message from QZSS with 8-bits preamble = 0x9A and 2-bits MT = 1, the message contains Message Type 37 augmentation information (Degradation parameters and DFREI scale table) defined in DFMC SBAS SARPs.