Proposed amendment for ED-73 para 5.4.2.5.2 from WG49N11 pre-meeting (Paris – July 2007)

§ 5.4.2.5.2 Reply Rate Capability

STEP 2 - Continuous Reply Rate Capability (Mode S) (Paragraph 3.4.2)

(1) If the transponder has only short reply capability

Set the transponder for a 15-pulse reply (Mode A with SPI).

Interrogate the transponder at a constant rate of 500 Mode A interrogations per second, plus 50 Mode S interrogations (for short replies) per second.

For at least 15 minutes verify that the transponder replies at the specified rates.

(2) If the transponder has long reply capability but no Downlink ELM capability

Perform the test listed in (1) using 16 of the 50 Mode S interrogations requiring long replies.

(3) If the transponder has Level 4 capability

Perform the test listed in (1) using 16 of the 50 Mode S interrogations requiring long replies. Additionally generate Downlink ELMs at the rate specified in the note below and verify that all the segments are extracted correctly.

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(4) If the transponder has Level 5 capability

Perform the test listed in (1) using 24 of the 50 Mode S interrogations requiring long replies. Additionally generate Downlink ELMs at the rate specified in the note below and verify that all the segments are extracted correctly.

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Delete Step 6 and add the note below to Step 2

NOTE- ~~Mode S~~ ELM Mode S Peak Reply Rate (Paragraph 3.4.3)

~~***NOTE:*** *This test need not to be repeated if it has already been performed as part of Step 2*~~

Obtain the maximum number of segments (n) the transponder is declared to be capable of delivering.

Calculate the additional number of segments (a) that the transponder is required to handle in a 25-millisecond interval each second as follows:

a = n/4 (Rounded up)

Load the transponder with a Downlink ELM with (n) segments.

At Time = 0:

Interrogate the transponder to extract (n) segments (i.e. the complete Downlink ELM).

At Time = 24 milliseconds:

Interrogate to extract (a) segments again (any segments of the downlink ELM can be chosen), then closeout the Downlink ELM

~~Verify that all the segments were extracted correctly.~~

Repeat the ~~test~~ extraction once per second for 1 minute.

~~and verify that all the extractions were successful~~.