



Proposal: Certification procedures after R94/95 tests

Current idea in IG AECS to demonstrate AECS functions after (R94,95) crash tests.


Issue

According to the regulation proposal by Russia, the vehicle should transmit after the impact tests GSM radio waves frequencies applicable in EU and/or Russia. Radio wave frequency are regulated/restricted nationally by each ECE Contracting Party (e.g. Japan regulation prohibits to use EU or Russian frequencies).



Theoretical countermeasures

- impact test area should be equipped with an anechoic chamber (or Shielded room).
- vehicle to be moved from impact facility to an anechoic chamber (or Shielded room) for transmission tests.
- need to obtain a special license for transmit restricted GSM radio wave.
- only conduct R94, R95 impact test for AECS in EU or Russia.

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- Situation is not the same for all OEM's
 - Countermeasures listed above are unreasonable or impractical for ECE certification



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Basic concept:

1. The transmission tests should be conducted as component tests (AECD or AECS) in Radio anechoic chamber (or Shielded rooms).
2. The transmission tests should not be conducted after the impact test. Instead the AECS operation should be verified by other functional checks
3. The Functional checks after the impact are follows (next slide):



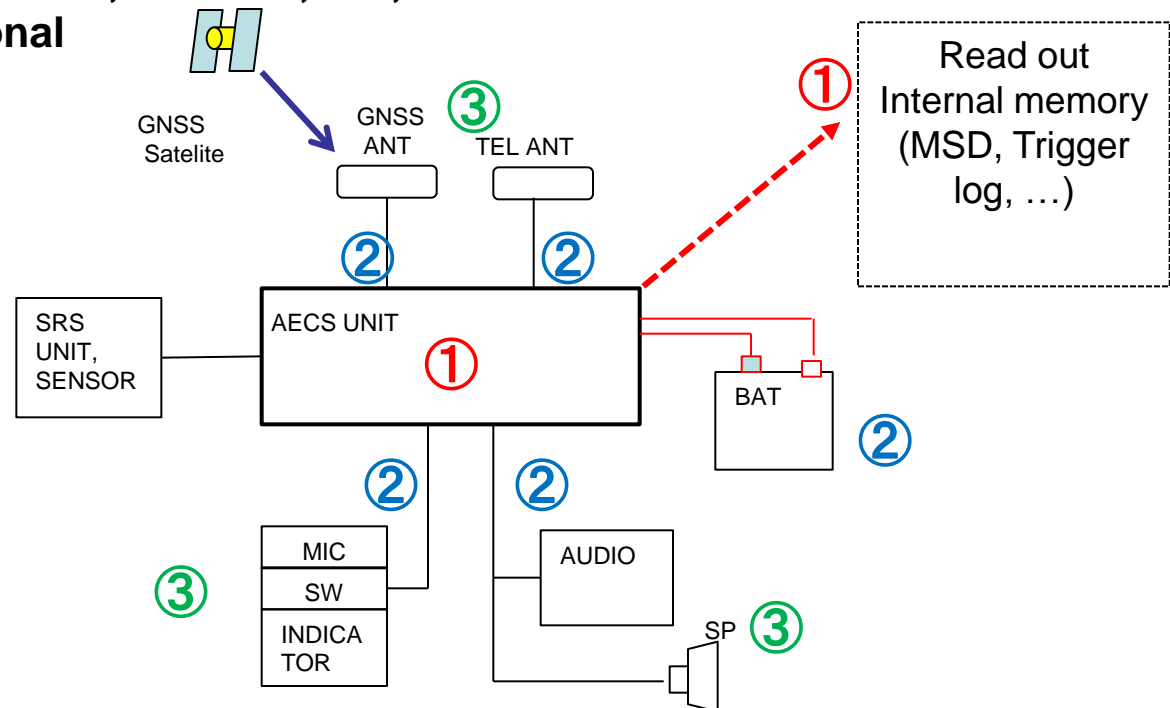
OICA Proposal for AECS Certification procedures after R94/95 tests (2)

① The AECD has to write its functioning records to internal memory. These records can be readout after the impact test.

(ex. Generation of triggering signal, Initiate transmission of MSD signal etc)

② The wire harness concerning this system (include battery) should be examined to demonstrate that they are still in operational condition.

③ Component of mike, speaker, Antenna, SW, should be examined to demonstrate that they are still operational (method to be decided: visual, short circuit, conductivity, voltage, tell tale,)





OICA Proposal for an alternative AECS Certification procedures

- OICA is also considering an alternative test protocol to replace a full scale impact test under R94/R95
- OICA will propose this by the next AECS