3GPP TSG SA WG 1 Meeting 95-e S1-213084

Electronic Meeting, 23 August –2 September 2021

**Title: [DRAFT] LS reply on requirements for problematic UAVs**

**Response to: S1-211273**

**Release: Rel-17**

**Work Item: ID\_UAS**

**Source: Qualcomm [SA1]**

**To: ACJA, SA2, SA6**

**Cc: SA3**

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**Send any reply LS to: 3GPP Liaisons Coordinator,** [**mailto:3GPPLiaison@etsi.org**](mailto:3GPPLiaison@etsi.org)

**Attachments:** [Attach agreed CR]

# 1 Overall description

SA1 thanks ACJA for their LS, and concerns related to the following UAV requirement, recently updated in TS 22.125:

*[R-5.1-017] The 3GPP system shall support the UTM in detection of UAV operating without authorization.*

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Firstly, in TS 22.125 the usage of UAV refers to the sum of the aerial equipment and the on-board UE comprising the mobile equipment and subscription module (e.g. USIM). Similarly, the usage of UAV controller refers to the sum of remote UAV control equipment and the UE.

Secondly, SA1 has the facility to detect, and inform the UTM about, UEs operating in Scenarios A, B, and C. In scenarios A and B, the 3GPP system cannot determine if the UE is part of a UAV or not. In scenario C, the 3GPP system can determine that the UE contains credentials associated with a subscription enabled for UAV operation.

With requirement [R-5.1-017], SA1 intends that the 3GPP system can assist the UTM by providing information on the existence of problematic UEs being operated aerially for all 3 scenarios. A problematic UAV may not be using a correct UAV-authorised 3GPP subscription, and therefore scenarios A and B are also important for a UTM to be aware of.

It is critical to note that the 3GPP system is not intending to adopt any roles of the UTM, but instead to provide an information source for both to cooperative and non-cooperative traffic in order for the UTM to build a complete situational awareness of UAS positioning. As a result of this discussion, SA1 have agreed the attached CR to clarify this requirement.

# 2 Actions

**To ACJA, SA2, SA6**

**ACTION:** SA1 asks ACJA to take the above into account.

**ACTION:** SA1 asks SA2 and SA6 to take the above into account, and inform SA1 in case any issue is identified (with the attached CR).

# 3 Dates of next TSG SA WG 1 meetings

SA1#96e 8-18 Nov 2021 Electronic Meeting

SA1#97e 21-25 Feb 2021 Poland