**3GPP TSG-RAN WG2 #113-e draft R2-2102055**

**e-meeting, 25th January – 5th February 2021 *revised from R2\_2102036***

Title: [DRAFT] LS on UE location aspects in NTN

Release: Release 17

Work Item: NR\_NTN\_solutions-Core, 5GSAT\_ARCH

Source: Thales [to be RAN2]

To: SA2, SA3-LI, RAN3

Cc: SA3

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Attachments: None

**1. Overall Description:**

As part of the WI NR-NTN-solutions, RAN2 has been discussing how to meet SA3-LI and SA2 requirements with regards to regulatory services (including e.g. lawful intercept).

To specify the necessary NG-RAN and UE functions, RAN2 would like to point your attention to the following.

Core Network selection by RAN is assisted via information such as:

- User Location Information (ULI) as determined by the RAN, which includes TAC and cell ID of the serving cell;

- Mobility measurements requested by RAN and reported by the UE, including e.g. neighbor cells (both terrestrial and NTN), inter-RAT measurements, WLAN measurements (as described in TSs 38.300 and 38.331);

- UE position, obtained by GNSS, based on measurements provided by the UE (as defined in TS 38.305).

* **Question 1: RAN2 would like to ask RAN3, SA3-LI and SA2 to confirm whether the current functionality identified above is sufficient for use in Non-Terrestrial Networks.**
* **Question 2: whether UE location information in coarse granularity, e.g. represented by TAC and cell ID of the serving cell in the initial attach procedure, is sufficient in Non-Terrestrial Networks.**
* **Question 2-Alt1: Does the cell identity present in a message on the N2 interface correspond to an Earth-fixed geographic area that is comparable in size to a Terrestrial Network cell (i.e., much smaller than a typical NTN cell) to achieve TN-like cell size granularity?**
* **Question 3: whether A-GNSS based UE location information, i.e. computed at network using A-GNSS based measurements provided by UE, or computed by UE and verified by network, can be considered reliable e.g. for lawful interception.**

**2. Actions:**

**To** **SA WG2, RAN WG3, SA WG3 and SA WG3-LI.**

**ACTION:** RAN2 respectfully asks SA2, SA3-LI and RAN WG3 to take the above into account and provide feedback on the above question.

**3. Date of Next RAN2 Meetings:**

RAN2#113-bis-e 12th – 20th April 2021 Electronic meeting

RAN2#114-e 19th – 27th May 2021 Electronic meeting