



PHD House, 4th Floor, Ramakrishna Dalmia Wing
4/2, Siri Institutional Area, August Kranti Marg, New Delhi – 110016,
Tel# 9599665859 E-mail: ajafri@mait.com □ Website: <http://www.mait.com>

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October 04, 2022

Shri Amitesh Kumar Sinha, IRAS
Joint Secretary
Ministry of Electronics & IT

Subject: Proposals for NavIC implementation

Respected Sir,

Greetings from MAIT!

Kindly refer to the meeting held on 2nd September 2022 under your chairmanship on NavIC implementation. In line with your request to the industry to share possible implementation options to enable NavIC in Smart Phones, please find enclosed the proposals.

Proposal 1:

- a) Allow Acquisition on the L1 signal of GPS/GLONASS till such time the L1 band of NavIC is fully functional and made available to mobile devices to optimize device design and production cost and Power/Battery consumption. Tracking will be done on the L5 NavIC signals.
- b) Mobile OEMs will make a self-declaration on the updated GSR for new models only.
- c) Timelines for NavIC implementation will be January 1, 2025.

Proposal 2:

- The L1 band is to be made fully available by ISRO along with L5/S bands. Implementation of NavIC by OEMs is to be made mandatory after the availability of the L1 band for both Acquisition and Tracking. This will enable seamless adoption of NavIC by handset OEMs in one go.
- Mobile OEMs will make a self-declaration on the updated GSR for new models only.
- Timelines for implementing NavIC will be two years from the date of L1 band being fully made available by ISRO.

Other important aspects to be considered:

1. As you are aware, the industry uses Ranging & Doppler observations from all satellites (from multiple constellations) in a combined positioning estimation filter. As such, there is no separate GPS vs GLONASS vs NavIC positioning approach.
 - a. Nominally, it would be advisable to make the best use of all available constellations to provide the best accuracy/power/TTFB.
 - b. Ensure that if other constellations are not available and usable, NavIC will be able to provide a first fix (Acquisition) and continue tracking.

With the above practical approach, the best global satellite constellations and Indian NavIC system will be made available for end-users to use very efficiently and maintain high accuracy and at the same time optimise battery consumption.

2. Technical specification document on L5/S band is already made available by ISRO. ISRO is requested to share the L1 technical specification document and timelines for sharing it. These two technical documents should suffice for implementing NavIC in Smart Phones.
3. Once L1 is made available by ISRO, Tracking on L1 to include NavIC will be carried out after 2 years from the date of availability of the L1 signals.
4. ISRO contacts (Email, mobile) to be shared for any technical query(s) related to design and implementation

We are highly appreciative that MeitY has called for industry consultations before implementing NavIC. We would like to highlight and assure you that the industry is with the Government as far as NavIC support and implementation in Smart Phones is concerned. It would be our pride to support and contribute to such a path-breaking Indian technology and highlight India's considerable technological advancements to the world.

We are hopeful that you would consider the feasible options stated in this representation from the industry and take a judicious decision on the proposals and on the implementation timelines.

With regards,



Col. AA Jafri, Retd.
Dy. COO
(Acting Director General – MAIT)

CC: Shri Sanchit Kumar Garg, ADG (AS-III), Deptt. of Telecommunications
CC: Smt. Asha Nangia, Senior Director, Ministry of Electronics & IT
CC: Shri Manish Saxena, Associate Director, ISRO, Bangalore
CC: Shri Ravinder Meena, Scientist "D", Ministry of Electronics & IT