

Micro-satellite Constellation – the challenges and the possible contribution of VNSC

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With the rapid evolution of downsizing the space components including the payload, the "Asian micro-satellite consortium" (AMC) is establishing to promote and accelerate the micro-satellite development and its applications including the future projects likes "super constellation".

Besides the "super benefits" gotten from the constellation which will be discussed in other papers, there are also many challenges during implementation and operations of a sharing constellation. With this paper, we will share our views in this matter and encourage creating a feasibility team to study not only micro-satellite development, data utilization but also study about the implementation and operation mechanism likes parameters required for constellation, satellite and ground station; communication mode and protocols, modulation... and the control of the constellation as a single network; the control of the operational mission plan; the matter of the conflict of interests...

This paper also introduces the situation of satellite development at Vietnam National Satellite Center (VNSC) and VNSC's possibilities to contribute to the AMC.

Keyword: Micro-satellite; constellation;