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BEE-FORE THE SWARM –  
SWARM TECHNOLOGIES’ UNAUTHORISED DEPLOYMENT OF SMALLSATS AND ART. VI OF  
THE OUTER SPACE TREATY:  
SUGGESTIONS FOR AN ASSESSMENT OF INTERNATIONAL RESPONSIBILITY IN OUTER  
SPACE

**Abstract**

On 10 March 2018, it became publically known that Indian Space Research Organisation ISRO’s launch on 12 January 2018 deployed four space objects into orbit that were not authorised by the US Federal Communications Commission (FCC): prior to the launch with ISRO’s Polar Satellite Launch Vehicle, California-based tech startup (currently considered a start up in stealth mode) Swarm Technologies had received a rejection by the FCC for launching their BEE (SpaceBEE-1 to 4) satellites (BEE is an acronym for ‘Basic Electronic Elements’). This is possibly the first known occasion of a potentially unauthorised deployment of space objects since the inception of international space law. What does a situation like this one entail for the obligation to ‘authorise’ and ‘continuously supervise’ the activities of non-governmental entities as set out in Art. VI of the Outer Space Treaty (OST)?

This paper centres around an assessment of the elements of Art. VI OST, and posits that Art. VI OST must be interpreted in the light of general public international law. It applies the notion of State responsibility under general international law as dependent on the existence of an internationally wrongful act and independent of invocation and damage, which corresponds to Art. VI OST’s “assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty”. The rules of attribution are considered in respect of the different actors (State agents, non-governmental entities, and international organisations), and with reference to their respective activities in outer space. Among others, the notions of ‘national activities’, ‘activities’, and ‘appropriate State’ are revisited individually. Moreover, this paper distinguishes international responsibility in Art. VI OST from international liability in Art. VII OST and the 1972 Liability Convention; the latter being contingent on the existence of damage and the notion of ‘launching State’. By looking at the OST through the lens of public international law, the content of Art. VI OST can be exposed, which leads to a more nuanced outcome for State responsibility under Art. VI OST, meeting the requirements posed by contemporary space activities. The theoretical attention that the interpretation of Art. VI OST has been getting over the past decades is met with a sense of practical necessity triggered by this catalyst event – rendering it possible that in the years to come, we will be referring to the distinction of before and after the epochal Swarm SpaceBEE deployment.