

IAF SPACE OPERATIONS SYMPOSIUM (B6)
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OPERATIONAL PLANNING OF REMOTE SENSING MISSIONS COMBINING SATELLITES AND
FLYING ASSETS – OPPORTUNITIES AND CHALLENGES**Abstract**

Customers ask for more targeted information, on time, with better quality, with greater diversity and at lower costs. In parallel technological trends are leading to sensors and platforms - satellites and non-satellites - that are smarter, more connected, of higher variety and that can be deployed in larger numbers. Each asset class has its strengths and weaknesses. Indeed, satellites can cover large areas with higher revisit times, while UAVs, HAPS and airplanes can provide persistent coverage albeit of smaller areas and at different altitudes and levels of autonomy.

We will discuss mission types that could benefit from combinations of different types of platforms from a technical perspective. In particular cloudiness uncertainties and request priority levels can especially weigh in favor of combining asset types.

However, efficient planning and operations of such missions on the ground can be challenging, since the levels of commitment of each asset type to end-user requests is different as the time of required sensing approaches. The challenges relative to the definition of the concept of operations and of the ground segment architecture will be discussed as well.