

IAF SYMPOSIUM ON COMMERCIAL SPACEFLIGHT SAFETY ISSUES (D6)  
Enabling safe commercial spaceflight: vehicles and spaceports (3)

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IN THE AIR AS IN THE SEA: CONSOLIDATING RISK MANAGEMENT STRATEGIES OF  
MARITIME TRAFFIC AND AIRSPACE TRAFFIC DURING LAUNCH FACILITY OPERATIONS

**Abstract**

The Whalers Way Orbital Launch Complex in South Australia is a launch site with primary access to polar and sun-synchronous orbits. In addition to the year-round good weather and ease of access from urban centres, the facility's location was selected due to the low density of land, maritime and aviation activity in relation to projected launch vehicle flight paths. The launch facility operator, Southern Launch, uses exclusion zones applied to land, water and airspace when carrying out launch activities. This paper discusses the considerations of establishing and monitoring exclusion zones across these traffic domains with particular consideration of maritime and airspace, from both a legal and an operational perspective. From the legal point of view, close engagement and information sharing is required between regulators and traffic management agencies responsible for users of maritime areas and airspace as well as with the regulator for space activities. The aim of this coordination is to lessen the restrictions on those users without compromising safety during launch operations occurring from the launch site. Challenges may occur when there is not clear cohesion between the approaches to safety across the various regulators. Accordingly, the application risk assessments and flight safety analyses on exclusion zones must be considered with interests and concerns of all regulators. The paper then address how the interests of regulators and traffic management agencies can be considered with input from the users of the water and airspace. The conclusion of the discussion emphasises how safety is maintained, benefiting launch providers, stakeholders and government, when carried out in the method used for operation of launch sites demonstrate by the Whalers Way Orbital Launch Complex.