SAXAVORD UK SPACEPORT NAVIGATIONAL RISK ASSESSMENT 2025 ENCLOSURE 2 - HAZARD TABLES

Assessment Number	Hazard Category	Impact Descriptor Title	Involved	Consequence Safety	Consequence Environmental	Consequence Economic	Consequence Reputational	Residual Risk Score & Rating	Control Measures Existing	Control Measure	Likelihood Reduction	Consequence Reduction	Residual Risk Score & Rating	Further Control Measures Proposed	Control Measure	Likelihood Reduction	Consequence Reduction	Residual Risk Score & Rating	Risk Owner	Risk Acceptance Criteria Safety	Risk Acceptance Criteria Environmental	Risk Acceptance Criteria Economic	Risk Acceptance Criteria Reputational	Final Risk Score & Rating
1	Collision	In orbital Objects accidentally meet either launch and during flights on orbital at and	In a bid to benefit from the of the higher likely to have cause Orbital Launch Providers (OLPs) and Spaceport Operators (SO) to consider collisions including in descending. This could be a collision between a launch vehicle (LV) and an object in the flow especially at higher ie to commencement, nothing to do with orbital debris. Collisions can occur at launch, in flight, at the end of mission and at orbital altitudes. Collisions can be between launch vehicles, launch vehicle stage, payload, or spacecraft. Inadvertent launch vehicle or payload fragmentation is a hazard which creates a large number of orbital debris.	5	5	5	5	25	Prevents with Mitigations	1.1 High availability of vehicle equipment/ user/ crew/ payload, maintenance and testing.	Without equipment/ maintenance and testing will lead to failure, loss, damage, or unsuccessfully, will lead to collision.	10%	0%	25	Prevents with Mitigations	1.1 Temporary Notices to Mariners - Local Notice to Mariners and Navigational Warnings promulgating the location of Spaceport Operations Areas (SOA) and Spaceport Operations Zones (SOZ)	With all the actions in place the majority of professional mariners, and recreational mariners, will be aware of space or space control launch operations, minimising the risk of a collision.	50%	0%	5	5	5	5	Unacceptable Minimising
										1.2 Availability, and (in)operationalisation of 'positive' (non-existing) data.	Aim of the mission of launch vehicles being terminated prior to reaching orbit is an area of concern. Launch vehicles (LV) are at risk of failure, injuries. This can be almost anywhere, in orbital or suborbital flight. Launch vehicles are at risk of collision with other objects.	10%	0%					1.2 Coordination and operation of a multi-sensor maritime surveillance system to detect, minimising risk with monitoring of Trans Range.	Data will be provided to the majority of professional mariners, and recreational mariners, only not the exact details of space or space control launch operations.	50%	0%					
										1.3 Equipment redundancy, - structural redundancy, or redundancy systems.	Redundancy is made in to launch vehicles and supporting equipment as standard.	10%	0%					1.3 UVP Records and GMBWN messages (anti-jogging) details of space or space control launch operations.	Data will be particularly important for companies/vessels operating in the area, and for the mariners to remain in NTM/NoticeMariners, etc.	50%	0%					
										1.4 Emergency, Non-Live Equipment	In a potential emergency, response survey (Risks/Hazards) or non-live/non-live equipment, may not be able to respond or managing any incident.	10%	0%					1.4 Photographers of launch activity, will commence with or without a non-live/non-live equipment, or Notmar/ Notmar Navigation Warnings, or Notmar/ Notmar Navigation Warnings.	Photographers of launch activity, will commence with or without a non-live/non-live equipment, or Notmar/ Notmar Navigation Warnings, or Notmar/ Notmar Navigation Warnings.	50%	0%					
										1.5 Emergency, Response Plan.	Space Range Regulations Team will implement the Emergency, Response Plan immediately, on-scene or in any incident.	10%	0%					1.5 Immediate space launch/space/ protection/ (Launch Exclusion Zone, Warning Areas).	Closure zones, in particular the UEF, will significantly reduce risk to the LV.	50%	0%					
										1.6 Training of operations personnel.	Training and continuation training will include a variety of scenarios, which, should be a further and more realistic training environment.	10%	0%					1.6 Acceleration of safety/ crew, with space port operations warning immediate.	This will provide local, regional and international mariners communities, of potential appearance of Mass Launch Vehicles, and provide, and follow up, the Mass Launch Vehicle Operations.	50%	0%					
										1.7 Emergency, equipment or details.	Sufficient quantities of appropriate emergency equipment, or equipment, or details, are given, might be not be in a high enough quantity.	10%	0%													
										1.8 Standard Operating Procedures.	SOPs will ensure procedures and practices are followed, and Standard Operating Procedures (SOPs) are in place and fully understood by all Personnel, Crew.	10%	10%													
2	Collision	Orbital Debris Impacts. Title	Involved	Consequence Safety	Consequence Environmental	Consequence Economic	Consequence Reputational	Residual Risk Score & Rating	Control Measures Existing	Control Measure	Likelihood Reduction	Consequence Reduction	Residual Risk Score & Rating	Further Control Measures Proposed	Control Measure	Likelihood Reduction	Consequence Reduction	Residual Risk Score & Rating	Risk Owner	Risk Acceptance Criteria Safety	Risk Acceptance Criteria Environmental	Risk Acceptance Criteria Economic	Risk Acceptance Criteria Reputational	Final Risk Score & Rating
										2.1 Involved in a minor by, a	This event would have least, minor further and from the lower Kármán line, and the most are regards orbital debris.	5%	0%	25	Prevents with Mitigations	2.1 Temporary Notices to Mariners - Local Notice to Mariners and Navigational Warnings promulgating the location of Spaceport Operations Areas (SOA) and Spaceport Operations Zones (SOZ)	Data will be provided to the majority of professional mariners, and recreational mariners, only not the exact details of space or space control launch operations.	50%	0%	5	5	5	5	Acceptable Monitoring
										2.2 Involved in a minor by, a	Orbital debris, or space debris, is a collection of man-made objects in orbit around the Earth which do not serve a useful purpose. Orbital debris is a hazard to spacecraft and crew. Orbital debris is a hazard to ground stations and to those who work there. Orbital debris is a hazard to bases on the Moon and Mars.	5%	0%					2.2 Coordination and operation of a multi-sensor maritime surveillance system to detect, minimising risk with monitoring of Trans Range.	Data will be provided to the majority of professional mariners, and recreational mariners, only not the exact details of space or space control launch operations.	50%	0%					
										2.3 Equipment redundancy, - structural redundancy, or redundancy systems.	Redundancy is made in to launch vehicles and supporting equipment as standard.	5%	0%					2.3 UVP Records and GMBWN messages (anti-jogging) details of space or space control launch operations.	Data will be particularly important for companies/vessels operating in the area, and for the mariners to remain in NTM/NoticeMariners, etc.	50%	0%					
										2.4 Emergency, Non-Live Equipment	In a potential emergency, response survey (Risks/Hazards) or non-live/non-live equipment, may not be able to respond or managing any incident.	5%	0%					2.4 Photographers of launch activity, will commence with or without a non-live/non-live equipment, or Notmar/ Notmar Navigation Warnings, or Notmar/ Notmar Navigation Warnings.	Photographers of launch activity, will commence with or without a non-live/non-live equipment, or Notmar/ Notmar Navigation Warnings, or Notmar/ Notmar Navigation Warnings.	50%	0%					
										2.5 Emergency, Response Plan.	Space Range Regulations Team will implement the Emergency, Response Plan immediately, on-scene or in any incident.	5%	0%					2.5 Immediate space launch/space/ protection/ (Launch Exclusion Zone, Warning Areas).	Closure zones, in particular the UEF, will significantly reduce risk to the LV.	50%	0%					
										2.6 Training of operations personnel.	Training and continuation training will include a variety of scenarios, which, should be a further and more realistic training environment.	5%	0%					2.6 Acceleration of safety/ crew, with space port operations warning immediate.	This will provide local, regional and international mariners communities, of potential appearance of Mass Launch Vehicles, and provide, and follow up, the Mass Launch Vehicle Operations.	50%	0%					
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										2.8 Standard Operating Procedures.	SOPs will ensure procedures and practices are followed, and Standard Operating Procedures (SOPs) are in place and fully understood by all Personnel, Crew.	5%	5%													
3	Collision	Orbital Debris Impacts. Title	Involved	Consequence Safety	Consequence Environmental	Consequence Economic	Consequence Reputational	Residual Risk Score & Rating	Control Measures Existing	Control Measure	Likelihood Reduction	Consequence Reduction	Residual Risk Score & Rating	Further Control Measures Proposed	Control Measure	Likelihood Reduction	Consequence Reduction	Residual Risk Score & Rating	Risk Owner	Risk Acceptance Criteria Safety	Risk Acceptance Criteria Environmental	Risk Acceptance Criteria Economic	Risk Acceptance Criteria Reputational	Final Risk Score & Rating
										3.1 Involved in a minor by, a	This hazard concerns is in the event of a minor hailing/being contacted/ hailed range of the Kármán line. A minor hailing/being contacted/ hailed range of the Kármán line. A minor hailing/being contacted/ hailed range, is based only, under the details and minor hailing/being contacted/ hailed range of the Kármán line, and provides the minor hailing/being contacted/ hailed range of the Kármán line, and provides the minor hailing/being contacted/ hailed range of the Kármán line, and provides the