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UAV operation FPV – J&J Medien GmbH

IPB – AUDI FIS SKI-WELTCUP 2023, Garmisch Partenkirchen

Briefing – AUDI FIS SKI-WELTCUP, Garmisch Partenkirchen

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1. mission overview

J&J Medien GmbH is hired by the German Ski Association as Host Broadcaster to produce LIVE FPV-Footage of the "70. KANDAHAR RENNEN" on January 28th and 29th 2023 in Garmisch Partenkirchen for international TV-production.

The corridors of the drone mission and procedures everybody who's moving inside this corridor has to cope with are specified in the following.

For mitigation of risks arising through the TV-drones mission, it is necessary that everybody who's moving inside the drone's operational volume is familiar with the mission and the mitigation processes and confirms to take the necessary steps to avert danger if an emergency occurs.



2. flight geography



The green area marks the operational volume of the TV-Drone. Within this area the drone is flying following the instructions of the tv-director.

The normal operation strategy is following the racer inside the green volume to generate a dynamic follow-up scenario. The drone is waiting for the skier beside the track, accelerating when he comes to the red and yellow volumes to have the same speed when he is inside the green flight geography. During the athletes race-action inside the operational volume, the drone is keeping a 5 m horizontally safety buffer to the skier to handle abnormal situations – wind etc.

The adjacent yellow and red areas are risk buffers for the case of an emergency. The procedures of the remote crew are designed to limit the risk zone of the drone to this area. Everybody who is inside these areas (green, yellow, red) is involved in the drones mission and has to follow this briefing and the instructions of the remote crew.

3. Emergency Response Plan

In case of emergency the emergency response team (ERT) is trained to mitigate the risks resulting from the emergency systematically through the following procedures.

	situation	identific ation	trigger	actions to take	responsible
#1	impacting a ground vehicle, building, or facility occupied by one or more people			 inform police and production supervisor interruption of event / warning spectators determine property owner / injured party if necessary, first aid (box in the vehicle) inform property owner / injured party inform the competent authority for aircraft accident investigation maintenance of the UA and termination of the operation 	ERT1 ERT2 ERT1 ERM, ERT3
#2	collision with manned aircraft			 If necessary, make an emergency landing while minimizing the presence of a risk to other manned aircraft inform police / rescue service and organizer/production supervisor if necessary, first aid (box in the vehicle) 	ERM ERT1 ERT2



			 inform air traffic control interruption of event / warning spectators inform the competent authority for aircraft accident investigation maintenance of the UA and termination of the operation 	ERT1 ERM, ERT3
#3	injury to one or more people as a result of a crash		 inform police / rescue service and organizer/production interruption of event / warning spectators determine injured party first aid (box in the vehicle) inform the competent authority for aircraft accident investigation maintenance of the UA and termination of the operation 	ERT1 ERT2 ERT1 ERM, ERT3
#4	damage to critical infrastructure		 inform police and organizer/production supervisor determine network operator and inform them inform the competent authority for aircraft accident investigation maintenance of the UA and termination of the operation 	ERT1 ERM, ERT3
#5	Starting a fire that could spread	inflamma tion drone / LiPos / surroundi ng objects	 inform fire department inform organizer/production supervisor interruption of event / warning spectators extinguish the fire (extinguisher on the track) inform the competent authority for aircraft accident investigation 	ERT1 ERT2 ERT1



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#6	release of hazardous substances			 cordon off the danger zone inform fire department and rescue service inform organizer/production supervisor interruption of event / warning spectators determine property owner / injured party if necessary, first aid (box in the vehicle) inform property owner / injured party inform the competent authority for aircraft accident 	ERM ERT1 ERT2 ERT1
#7	leaving the operating volume and exceeding the limits of: Ground Risk Buffer (fly-away available)	UAV exits GRB	terminat ion within CV fails	 informing national authority for flight safety – Indication of the last known position, direction, speed and expected remaining flight time inform police / rescue service and organizer/production supervisor interruption of event / warning spectators Tracking UAV and locating possible ones crash site determine property owner / injured party inform property owner / injured party inform the competent authority for aircraft accident maintenance of the UA and termination of the operation 	ERT1 ERM ERT1 ERM, ERT3

4. declaration

I declare that I've taken note of the broadcasting drone's mission and the safety procedures (emergency response plan) and I accept to be overflown by the UAS.

I declare to take the necessary steps to avert danger if an emergency occurs.

Furthermore I declare to follow the instructions of the drone's remote crew and the emergency response team (ERT) to mitigate risks and reduce the impact of an emergency.