

RISK MANAGEMENT WORKSHEET Quarter-Scale Piper Cub UAV

PAGE 1 of 2

MSN/TASK: Conduct UAV Flight and Recovery				Date: 2 July 2009		
HAZARDS	INITIAL RISK LEVEL	CONTROLS	RESIDUAL RISK LEVEL	HOW TO IMPLEMENT	WHO WILL SUPERVISE	CONTROL EFFECTIVE YES NO
Crash on takeoff into personnel or structures	M (II-D)	Orient take off away from personnel, vehicles, and structures	L (II-E)	<ul style="list-style-type: none"> • Inform AVOs & staff to pay attention to detail • Ensure by-the-book procedures are followed • Ensure launcher is placed correctly. • Practice emergency procedures on simulator • Ensure only mission crews are located on the runway as required 	<ul style="list-style-type: none"> • PIC • RSO • Observers 	
Crash during recovery or landing operations into personnel or structures.	M	<p>Orient landing away from personnel, vehicles, and structures</p> <p>Ensure both sides of the runway are free from obstacles, vehicles & personnel in the touchdown area. Comply with checklist procedures.</p> <p>Review emergency procedures.</p> <p>Practice emergency procedures on simulator</p>	L (II-E)	<ul style="list-style-type: none"> • Inform AVOs & staff to pay attention to detail. • Use by-the-book operations 	<ul style="list-style-type: none"> • PIC • RSO • Observers 	
Crash onto the runway or recovery area	M (II-D)	Ensure non-essential personnel are clear of the intended landing area. Maintain at least 50 meters away from the designated landing area.	L (II-E)	<ul style="list-style-type: none"> • Survey area and clear non-essential personnel prior to bringing the vehicle into the landing pattern. • Ensure runway or landing area is set up IAW TM. • Practice emergency procedures on simulator. • Ensure an area is designated for non-essential personnel. 	<ul style="list-style-type: none"> • PIC • RSO • Observers 	

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Aircraft entering UAV flight area	M (III-B)	Trained Observers Flight planning SOP	L (III-C)	<ul style="list-style-type: none"> Utilize Observers and COM. NOTAMs posted and communication with local airport(s). 	<ul style="list-style-type: none"> PIC RSO Observers 	
Loss of GPS signal/vehicle	H (II-B)	Operate within vehicle specifications	M (III-C)	<ul style="list-style-type: none"> Utilize contractor oversight Positive communication among crew members 	<ul style="list-style-type: none"> PIC RSO Observers 	
Lithium Battery Safety	H (II-C)	Monitor battery for thermal stress between flights.	M (III-D)	<ul style="list-style-type: none"> Visually inspect between flights. Provide cooling time if required. Interchange batteries. 	<ul style="list-style-type: none"> PIC RSO Observers 	
Fueling Operations	H (II-C)	Trained personnel Fuel aircraft in designated safe areas Handle, store fuel in approved containers and in safe areas	M (III-D)	<ul style="list-style-type: none"> Utilize task-assigned fueling personnel Follow training procedures and SOP All personnel trained in use of fire extinguishers Fire extinguishers maintained in ready condition Fire extinguisher ready fueling site 	<ul style="list-style-type: none"> PIC RSO Observers 	
General Range Safety: Dangerous wildlife	M (III-D)	Remain in designated range areas.	L (III-E)	<ul style="list-style-type: none"> Review range boundaries. Avoid brushy areas and known habitat 	<ul style="list-style-type: none"> PIC RSO Observers 	
Adverse Weather Conditions	H (II-B)	Bring appropriate clothing and gear.	L (III-C)	<ul style="list-style-type: none"> Pre-mission equipment inspection 	<ul style="list-style-type: none"> PIC RSO 	

MISSION/TASK RISK AFTER CONTROLS ARE IMPLEMENTED	SAFETY REVIEW	COMMAND APPROVING AUTHORITY
LOW <input type="checkbox"/> MEDIUM <input type="checkbox"/> HIGH <input type="checkbox"/> EXTREMELY HIGH <input type="checkbox"/>	(b) (6) Safety Officer	(b) (6), UAV Flight Test Director