Quantum Amateur Radio & Technology Society *www.quantumtech.club*



Health & Safety Risk Assessment

Callsign/s used Date/s of event Description of event Host organisation Location of event Event H&S Officer Risk assessments can be performed by someone with a reasonable ability to recognise some of the risks that prevail for the activity. This Risk Assessment has been conducted by...

Print Name

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Signed

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Date

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General

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
Visibility	Special event station operators	During all antenna erection and dismantling operations high visibility clothing and a hard hat will be worn by the teams performing the operations.
Poor illumination	Special event station operators.	A suitable, fully charged torch must be carried to enable safe working at night time (24 hour station operations).
Hot weather conditions	Special event station operators.	Suitable protection should be provided for the effects of sunburn. Drink plenty of water and take regular rest breaks.
Cold weather conditions	Special event station operators.	Suitable warm and insulated clothing should be worn. Drink warm drinks and take regular rest breaks.
Wet weather conditions	Special event station operators.	Suitable wet weather clothing should be worn. Antennas will not be erected when there is a possibility of thunderstorms in the vicinity.

Antennas and masts

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
Erection and dismantling of	Special event station operators	One person will be put in charge of the antenna erection team.
antennas		All members of the antenna erection team must be briefed regarding antenna erection prior to the process starting.
		The suitability of the ground will be assessed prior to the erection of the antennas.
		The site will be clear of overhead cables.
		The guy rope systems will be appropriate for the height and weight of the antenna/mast and will take in to account the effect of high winds on the structure.

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		All masts will be doubled guyed.
		Gloves and safety footwear will be worn by the antenna erection team.
		"Avoidance of danger from overhead power lines" – HSE publication GS6 (3rd edition) 1991 ISBN 0 11 885668 5
		"Working safely near overhead power lines – Agricultural information sheet 8" Available from HSE.
Trip hazard on the tent guy ropes. Trip hazard on the antenna mast guy	Special event station operators and members of the public.	An exclusion zone will be marked out around the tent and antennas with either stakes and warning tape, or crowd control barriers.
ropes.		Ground stakes will be appropriately marked.
		'No Entry' signs will be placed along the perimeter of the exclusion zone at regular intervals to warn the public not to cross into the exclusion zone.
		Next to each 'No Entry' sign will be placed a 'Warning' sign to remind station operators, and other authorised persons, of the dangers of crossing in to the exclusion zone.
Falling metal work and antennas and masts during their erection and dismantling.	Special event station operators and members of the public.	The area in which the antennas are being erected/dismantled will be marshalled to keep members of the public away from the site.
		Two special event station operators will be involved in erecting/dismantling the antennas. They will both check to ensure that all securing bolts are tight. One will hold the mast whilst the other strings out and fixes the guy ropes.
Falling antennas and masts during the operation of the Special Event Station.	Special event station operators and members of the public.	All antenna masts will be securely double guyed using rope and fixtures whose specification exceeds the loading caused by winds of up to Beaufort Force 5.
		All guy ropes will be checked immediately prior to installation and any found to have suffered chaffing will be replaced.
		Wind speeds will be constantly assessed and the masts will be dismantled and the Special Event Station shut down when

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		conditions dictate.
		A flag will be placed on top of the highest mast so that wind speed can be gauged – a method of measuring wind speed is recognized by the Metrological Office.
		An exclusion zone will be marked out around the tent and antennas in to which the antennas and masts can fall without fear of striking members of the public.
		'No Entry' signs will be placed along the perimeter of the exclusion zone at regular intervals to warn the public not to cross into the exclusion zone.
		Next to each 'No Entry' sign will be placed a 'Warning' sign to remind station operators, and other authorised persons, of the dangers of crossing in to the exclusion zone.
Electrical shock hazard from touching the antennas.	Special Event Station operators and members of the public.	An exclusion zone will be marked out around the antenna mast with either stakes and warning tape, or crowd control barriers.
		'No Entry' signs will be placed along the perimeter of the exclusion zone at regular intervals to warn the public not to cross into the exclusion zone.
		Next to each 'No Entry' sign will be placed a 'Warning' sign to remind station operators, and other authorised persons, of the dangers of crossing in to the exclusion zone.

Electricity Supplies & Generators

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
General	Special Event Station operators	Generators should only be attended by those trained in their use.
		Use of generators must be in compliance with the instructions and safety notes published in the manufacturer's manual.
		The generator should be operated on a level surface.
		Generators must have a suitable ground earth spike connected prior and during

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An RCD will be used to minimise the risk of electric shock at all times. "Electrical Seffey of Independent Low-Voltage AC. Portable and mobile generators and connected systems" - HSE document OC482/2 Electrical shock hazard from equipment when operating from a 240v AC power supply. Special Event Station operators and members of the public. When using a generator, it will be earthed at the generator and the earth connection on the electrical supply will be checked to ensure that it is wired correctly. The generator will be placed within the antenna exclusion zone to keep it away from members of the public. When using a mains electricity supply, the earth of all 13A sockets will be tested to make sure that they are wired correctly. The generator will be surrounded by a wind break and placed beneath a gazebo to prevent the generator from becoming wet during a rain storm. Never operate generator with wet hands. Examine all power leads and plugs for damage. Look for signs of overheating (burn or scorch marks). Ensure correctly rated fuses are fitted to plugs for the load applied. Ensure no bare wires are visible from connectors or sockets. Ensure all terminal connections are tight. Where appropriate ensure that mains operated equipment is PAT tested for safety compliance. Carbon monoxide poisoning Special Event Station operators and members of the public. Generators will be placed and run in well ventilated locations. Generators will not be run indoors.		operation.
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Fire	Special Event Station operators and members of the public.	Fuel will be kept at least 10m away from the generator when it is in use.
		Fuel should be kept in an authorised and clearly marked container.
		Generators will not be refuelled with the motor running.
		Generators will be left for twenty minutes and allowed to cool down before refuelling takes place.
		Naked flames will not be allowed within 20m of any fuel source.
		A suitable fire extinguisher will be located nearby.

Trip Hazards

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
Trip hazard from trailing cables.	Special Event Station operators and members of the public.	All cables within the Special Event Station operating area will be routed so as to minimise the risk of tripping over them.
		Where cables have to cross a floor area of the operating area, they will be routed through insulated rubber bridges specifically designed for the task, taped securely using quality duct tape or sunk in to the ground.
		Where it is essential to route cables / feeders along walkways ensure they are taped securely to floors or walls.
		Notices will be placed in clearly visible places to warn people of cables crossing a walking path.
		Where possible the area that cables cross a walking path will be well illuminated.
		Antenna cables/feeders must have a suitable point of entry into building, tent, vehicle etc.
		Ensure cables/feeders do not impede access/egress through doorways, emergency exits etc.
		Antenna cables within the antenna exclusion zone will not be covered as the exclusion zone is designed to keep people

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out of the area. The 'Warning' si remind station operators and oth authorised persons of the trip ha within the exclusion zone.

Fire

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
Fire in the tent	Special Event Station operators and members of the public.	A fire extinguisher will be kept inside the tent to deal with electrical fires.
		A fire blanket will be kept inside the tent to deal with kitchen area fires.
		Two exits are to be maintained within the tent to ensure everyone can get out as quickly as possible.

Cooking

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
Burns from cooking equipment.	Special Event Station operators and members of the public.	The kitchen area is constantly manned when in use to prevent people from walking in to a hot stove, kettles and pans.
		Once used, hot pans and kettles are placed under the stove where they cannot be knocked over, or touched by accident.
		The stove will not be kept burning whilst not in use.

Motor vehicles

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
Installing radio equipment in motor	Special Event Station operators	Batteries should be correctly vented to prevent gas build up.
vehicles		Batteries should be secured to prevent spillage.
		All connectors and cables should be adequately protected.
		The termination of flexible cables should be free from strain.

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		Mobile radio equipment should be connected to a power supply by an appropriate fused link. Radio equipment should be secure.
Moving vehicles	Special Event Station operators	Wear high-visibility clothing. The loading and unloading of equipment from vehicles must take place in clearly designated areas.

Equipment Handling

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
Personal injury from the handling and lifting of equipment.	Special Event Station operators	Before lifting any equipment the operator should assess the equipment to be lifted.
		Where possible, a lifting aid should be used if the operator feels that the equipment will be too heavy to lift on their own.
		Where a lifting aid is not available, the operator will seek the assistance of other operators.
		Where additional operators are not available, the operator will seek to reduce the weight of item to be lifted.
		The operator will adopt a suitable stable position during the lift.
		The operator will seek to clear the path to be taken before attempting the lift and carry procedure.
		The maximum weight to be lifted by a woman to elbow height is 13Kg and 20Kg for a man.
		http://www.hse.gov.uk/pubns/indg143.pdf

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Electronics and Computer Workshops

HAZARD	WHO MIGHT BE HARMED?	HOW IS THE RISK CONTROLLED?
Soldering	Event operators and visitors	Health and safety briefing to be given to warn of the dangers of soldering before any practical work is undertaken.
		Soldering irons must be left to cool down before putting them away to prevent burns.
		Extraction fans will be used to prevent the build-up of fumes. Where extraction fans are not available, or practical, the room will be well-ventilated.
		Washing facilities will be in the near vicinity to minimise contamination from solder.
		Where possible, lead-free colder will be used to minimise contamination from lead.
		Goggle will be made available to minimise the risk to eyes of solder spit.
Hand tools	Event operators and visitors	Health and safety briefing to be given to warn of the dangers of using hand tools before any practical work is undertaken.
		All tools will be checked prior to practical work to ensure that they are fit-for-purpose.
		Goggles will be made available to minimise risk to eyes from snipping wires.
Workbench equipment	Event operators and visitors	Health and safety briefing to be given to warn of the dangers of using workbench equipment before any practical work is undertaken.
		All mains sockets will be tested before use to ensure that they are fit-for-purpose.
		Equipment will not be placed near the edges of workbenches to minimise equipment being knocked off and causing injury.
		All electrical equipment used will have a current PAT testing sticker.
Drills, lathes, 3D printers and other manufacturing equipment	Event operators and visitors	Health and safety briefing to be given to warn of the dangers of using manufacturing equipment before any practical work is undertaken.
		Equipment required to have safety guards

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		fitted will be checked to make sure that the guards are fully operational and fit-for-purpose.
		Goggles will be made available to minimise risk to eyes from debris produced during manufacture.
		Where there is a danger of dust inhalation, face masks will be provided and the room will be well ventilated.
Chemicals	Event operators and visitors	Health and safety briefing to be given to warn of the dangers of using manufacturing equipment before any practical work is undertaken.
		Chemicals will be kept upright in a locked container at all times when not in use.
		Appropriate protective clothing will be provided.
		Eye wash will be close at hand in the event of irritation of the eyes.
		A spill kit will be close at hand.
Open electric and electronic equipment	Event operators and visitors	Where possible equipment will only be switched on when the case is shut to prevent electrocution.
		Only suitably trained event operators will operate electric and electronic equipment with the case open.

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