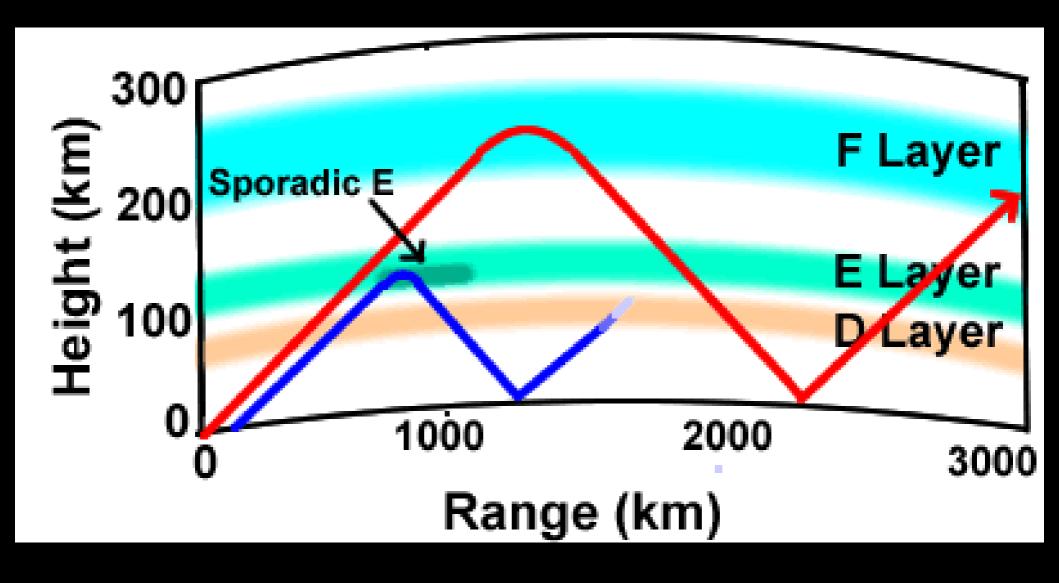




VHF (145MHz) 160km 25W 4 daypacks HF (7/14MHz)
<= 3,000km
2.5/5W
1 daypack
(simpler electronics)



Zealand



Elecraft KX3 700g 10W Space for ATU



Yaesu FT-817ND 1.3kg 5W No space for ATU



LDG Z-817











## **Safety**

<u>Lightning</u>: If a storm threatens, all of the antennas will be lowered immediately.

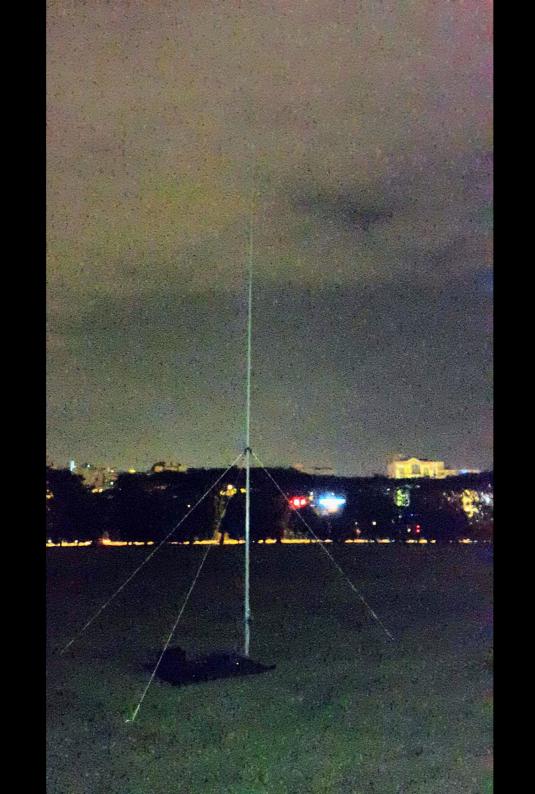
<u>Fall</u>: This is primarily a high wind risk which, as for storms, will be reason for immediate lowering of all antennas.

Electrocution, public: The only antenna which presents this risk is the ground-plane vertical as the tips of the radials may be at 100-200V above ground potential during transmission at maximum power (250W PEP) and may be within 2m of the ground. We'll aim to arrange guys ropes in such a way as to keep them higher than this, however in case we can't: the proposed protection is to cordon the part of the garden containing it and to sign-post the electrical hazard. None of the footpaths go anywhere near the proposed area, the risk to the public should be minimal. Note that the operating position is immediately adjacent to the cordon (in order to keep the antenna cable short) which means that any operator is able to cease transmitting immediately if e.g. a child runs into the cordoned area.

<u>Electrocution</u>, <u>operators</u>: We assume that the 240V provided to the tentage is already adequately protected. We'll need the 240V supplied from the green-roofed cottage be protected by an ELCB. If that's not already the case then I'm happy to obtain one and use it.

<u>RF Exposure</u>: Singapore does not appear to have its own rules for this. FCC OET 65 specifies a maximum power density ( $S_{max}$ ) of 180/f^2 mW/cm^2 (f in MHz) for General









Power Level	0.5W	1W	2.5W	5W
Internal Battery	1	2	3	3 (flashing)
External Source	?	?	?	?



Power Level	0.5W	1W	2.5W	5W
Internal Battery	1	2	3	3 (flashing)
External Source	1	2	3	?



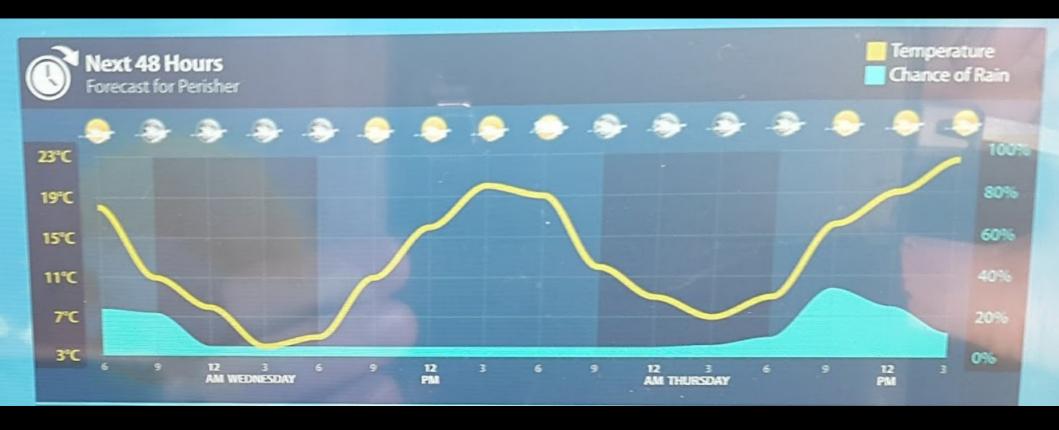
Power Level	0.5W	1W	2.5W	5W
Internal Battery	1	2	3	3 (flashing)
External Source	1	2	3	blank (!)













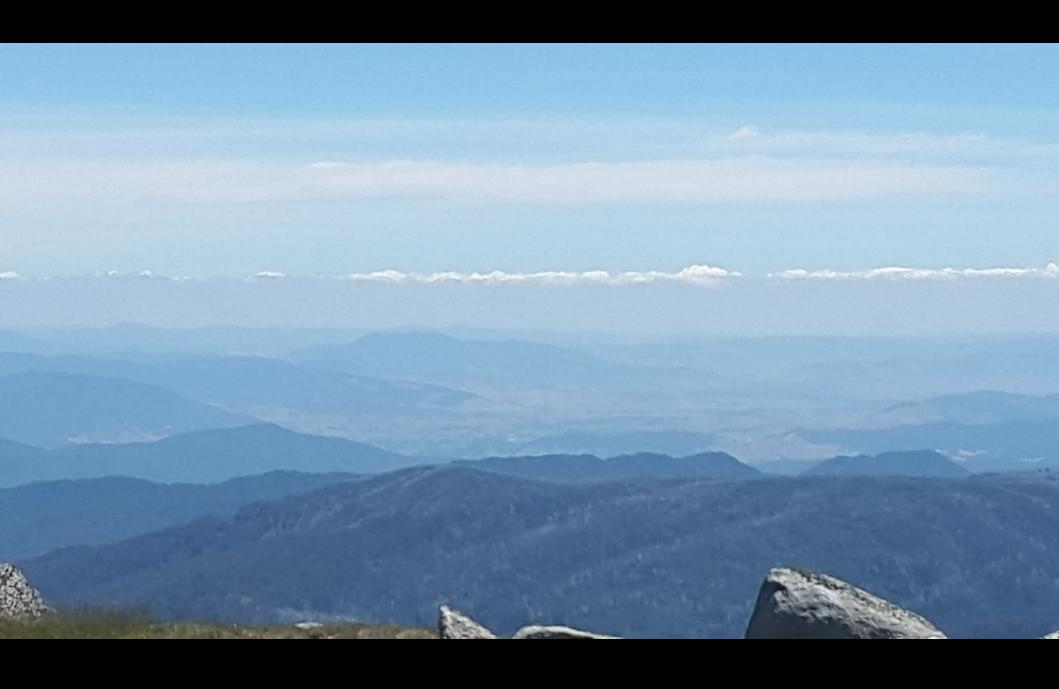
















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Hardware

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