

Repeater on Mount Terrible

Base Idea

Mount Terrible is not far from Tamworth, NSW. In fact it is 6.5 kilometres from Werris Creek and the mountain altitude is 918 Metres above sea level, getting frequent snow in Winter months.

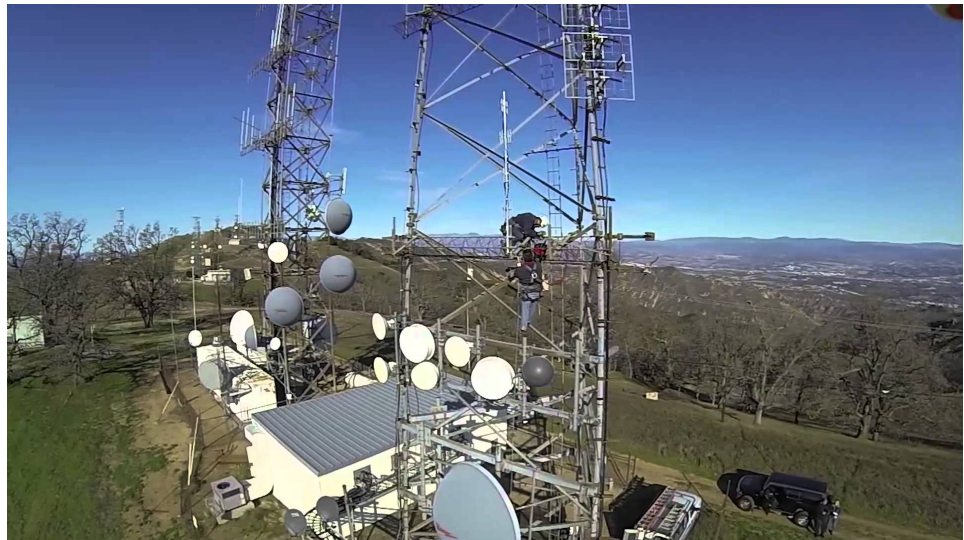
The Rural Fire Services have approached our company with an idea to install a Radio Repeater hut and tower on the mountain top. There is some private property with locked gates but that has a right of access for vehicles ascending the mountain.

The nearest power to the proposed hut site is 60 Metres away, that site being a NSW Police and Ambulance site for their own Radio Repeater.



The road access from Werris Creek is 2.67 km of very rough dirt road, suitable only for 4 Wheel Drive vehicles in the raining weather. The photo above is of Mount Terrible looking from Werris creek. The style of building we would like is a

concrete base, brick walls, steel door, concrete roof. We would want armoured RF cables to the tower to be fully vandal proof. Solar panel on the roof of the hut, and battery backup and 60 metres of cable run to the Police site to pick up the power, so poles will be needed with aerial feed.



Underground is out of the question due to environmental issues and rock. The proposed tower is similar to the photo above, triangular 2.9M between legs at the base and 15 M tall. It would be a commercial galvanised tower built for Cyclonic zone 2 conditions. The radio gear would be supplied and installed by Motorola. All they need is a wall to anchor it to and electricity and the tower in situation.

After the site is set up, the transmitter aerials would need to be positioned by trial and error to get the maximum coverage for the Tamworth area. Commercial customers paying for our site radio rental in the future cannot tolerate downtime and radio 'deaf' areas. Your tasks as a class activity are set out on the next page. One large customer

with an interest in this project is NSW State Rail. They own the portion of land on Mount Terrible which we will be working with. You will work in groups to come up with some ideas and then present your work to the group.

So

- What are our resources going to be for this project?
- What is the project scope?
- Detail the project scope taking into account as many factors as you can.
- Who are the Stakeholders?
- What are some assumptions?
- What guesstimates (approximations) can we use for costs and time?
- What would be some project constraints?
- Can you group together some tasks in a small work breakdown chart?
- Can you take the tasks from the WBS and put them in some time order?
- Is the sequence of tasks important in this infrastructure project?