

## Moon-bounce from Tristan da Cunha from Radio Ham Lance Collister

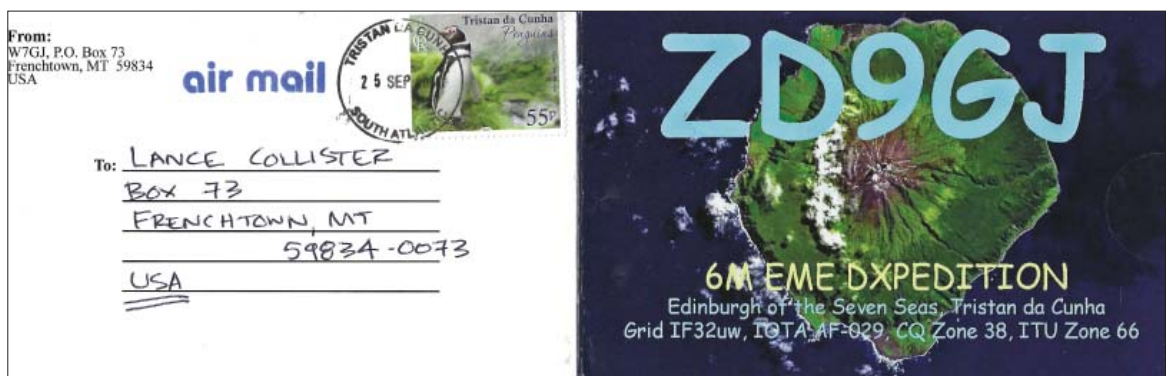
Licensed Amateur Radio Operators (hams) try to collect contacts with as many countries and remote islands as possible. This becomes more difficult on the higher frequencies, such as VHF bands, where the coverage is mostly local, or line of sight. However, with specialised equipment and large enough antennas, VHF signals can be sent to the moon and back. In that way, people around the Earth can be contacted using the very faint “moon-bounce” signals which are reflected back to Earth. Nobody had ever operated EME (Earth-Moon-Earth) from Tristan before, so most parts of the world never had a chance to contact this rare and remote spot. The EME signals to the moon (half million miles away) and back take between two and three seconds to return to Earth!



I chose the lowest VHF band at 50 MHz to activate Tristan for the first time on EME. After trying to get here for several years, I finally was advised of a last-minute cancellation and availability of a berth on the SA *Agulhas II* from Cape Town. I jumped at the chance to travel down here and set up a 50 Mhz EME station on Tristan. After a couple of weeks of operation, I had contacted 136 stations around the world by EME. They included the first ever stations from North America to ever contact Tristan on VHF, as well as more distant stations in Japan and Alaska. And since now is the peak of solar activity during the current 11-year solar cycle, there was an opportunity to contact another 348 stations in Europe and 2 in South America by bouncing my signals off the ionosphere.

I made 1477 contacts in total, including 1304 made by trans equatorial propagation (via the ionosphere) and 173 contacts via EME to the moon and back. The most distant contacts via EME were to stations in Japan and the most distant contact via the ionosphere was in China.

Top: Lance Collister in the Tristan 'Radio Shack'; Above: Lance's aerial set up to aim VHF signals at the moon; Right: A sample of Lance's ZD9GJ QSL post card.



We had some high winds and storms, but the weather at times was actually very nice. I was fortunate that the large antenna successfully withstood what can be very challenging weather conditions this time of year. It was a very successful trip in terms of the radio accomplishments. But it also was a fantastic visit with very friendly residents in a spectacularly beautiful place! I will miss this unique place and its people.

In a final message to Tristan Administrator Philip Kendall, Lance said: ‘Thanks for all your support and hospitality. It has been quite a successful and enjoyable operation - and is much appreciated by over 1400 amateur radio operators around the world!’ Lance departed aboard MFV *Edinburgh* on 3rd November after spending over seven weeks on Tristan.

*Cheers! Lance Collister ZD9GJ/W7GJ Frenchtown, Montana, USA*

Radio ‘Hamming’ is not new to Tristan. Head of Communications Pat Patterson offered ham training on the island in the 1980s. One of his students was TDCA Co-Chair John Cooper, who qualified as a licensed ham.