



Briefing Note 0002 – Audio quality when talking to N2

Issue 1: 5th September 2016

Introduction

In the first test at the Gouffre Berger in July 2016, it was reported the voice 'quality' of the underground Nicola2 (N2) to Nicola 3 (N3) communications did not match that of the N2 to N2.

The N3 uses pre-emphasis and de-emphasis. The transmitter boosts the high frequency before transmitting and attenuates the high frequency when receiving. This means that the best performance will be between 2 N3s.

A N2 will receive the N3 with more treble so will sound a bit different. The high frequency components are less present in speech but are necessary to keep the voice intelligible. Increasing the power of the treble for transmission should improve the signal to noise ratio of the treble.

Subsequently in August, a further test of N3 to N3 from camp 1 to the surface showed this to be the case and the voice quality matched that of the N2.

=====END=====