

NTARC RFID System Checkpoint Information Sheet

This note only covers the changes when using the NTARC RFID card reader system at a checkpoint. Manual checkpoint operation can be found in a separate doc.

Checkpoint numbering

The NTARC checkpoint (CP) numbering system incorporates event information. The format is: Ride distance (first 2 digits), Leg number, then checkpoint number in that leg. So 4012 is 40km, leg 1, CP 2. Similarly for a state championship, 1651 is 160km, leg 5, CP 1. A CP allocation sheet will be provided before leaving base, or emailed if we get track details from organisers early.

Voice transmissions

The usual manual recording of each passing riders' details is still required as the main record, along with updating of the rider tracking sheets. The details of every rider doesn't need to be radioed back to base, only:

- First rider of each distance or leg.
- Last or any outstanding riders as determined by the local tracking sheet. Base will compare with their records and query any differences.
- If card has been lost or a read error

RFID readers

The RFID card reader system is self-contained, and works autonomously using packet radio via a 70cm repeater back to base. A couple of test cards are provided to prove the system is working. On the reader panel and facing the riders is a flashing blue LED. When a card is presented it flashes green and is accompanied with a single loud beep. In the design of the firmware operation, there is a 2 second block before re-reading the card. This is to help distinguish which card is being read when a group of riders present. Also there is a 3 minute block after sending data to base (and WEB page) to reduce false triggers when the horses are milling around the water trough. The blue LED flashes at a slow 2 sec rate if the system has communications with base; it will change to 0.5 sec rate if the RF link is poor or there is lots of other reader activity. Note: no card information will be lost because those packets use handshaking. There is also a LED on the rear side of the panel on the controller. This LED flashes blue when syncing to base, if it gets an acknowledgment it will flash green. If it doesn't get an acknowledgment after a period it will flash red and keep trying to sync. This communications info is also shown on one of the local web pages.

Reader web info

A local web site is provided by the reader, as detailed in the Access Point Equine pdf. One of these pages show rider details like which event, bib number and name has just been scanned. This is useful to cross reference your reading of bib number, or if you have missed one. If this page shows "rider not known in event", it means the rider is not using the card issued on the day, but one from a previous ride (this happens a lot). This rider needs to be identified and communicated back to base who will also inform the TEERA ride secretary before they return to base for vetting. Another page has a list of riders in each event. This is useful for say 20km ride, as rider registration hasn't been completed and ride sheet issued before crews leave base. Base can download this information when ride secretary issues the sheets.