As you know we have been experiencing some problems with the weather stations. I have summarised the gaps in data in the attached excel spreadsheet. The results of the summary are very worrying, but we are doing everything we can to rectify the situation.

Some early gaps in data are due to power failures or the archive memory of the console running out of space. These problems have been rectified by our increasing experience of working with the stations. Of more concern are the later gaps caused by damage of some of the cables which carry the data from the external sensors to the console housed inside the TDR box.

The table below shows what has been done since the cable failures to try and get the stations working efficiently.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Weather Station | | | |
| CCC | CQF | DPF | DCF |
| 23rd Jan |  |  |  | Informed of broken cable via e-mail from Dave. |
| 24th Jan  Diddington |  |  | No noticeable cable damage. Cable protected from animal damage. Working correctly at the point of leaving site, though data stops being received later the same day. | Cable Replaced and protected. Working correctly at the point of leaving site, though data stops being received later the same day. |
| 26th Jan  Cirencester | No noticeable cable damage. Cable protected from animal damage. Working correctly. | Collecting bad data. System rebooted and cable protected. |  |  |
| 14th Feb  Cirencester | Working Correctly | Noticeable cable damage. Cable replaced. Working correctly at the point of leaving site, though data stops being received later the same day. |  |  |
| 23rd Feb  Cirencester | Working Correctly | No noticeable cable damage. Cable replaced. Working correctly at the point of leaving site. Assumed to be working correctly now. |  |  |
| 24th Feb  Diddington |  |  | Not Working (no noticeable cable damage) | No noticeable cable damage. Cable replaced. Working correctly at the point of leaving site. Assumed to be working correctly now. |

Those cables which were identified as damaged have been replaced with similar which were not bought from Prodata (the weather station supplier). Immediately after replacement, these cables begin to transmit data correctly, however, within a few hours it appears that the cables have failed. A call to Prodata has confirmed that the cables which were purchased were the correct cables and they cannot advise on a reason for the failure. In order to test this, new cables have been ordered direct from Prodata for the three weather stations which are experiencing problems. These will be installed as soon as is possible.

There is a concern that a possible short circuit at the time of the initial cable failures may have done some intrinsic damage to the transmitter board housed in the external sensors. However, since some data records correctly at the time of replacement of the cables, Prodata inform me that this is unlikely.