

Initiated by: Dave Emrich

Project Manager: Tom Booler

Proposed Priority:  Fast Track  Normal

**Title:** Re-laying LNA cabling at tile/beam-former

Affected item(s):

All tiles at the MRO

Technical description:

Over time we have observed LNA cable damage, apparently by being chewed by an unknown variety of animal. Apart from the damage to the cables themselves, an additional expensive consequence is that shorting the cable blows up the bias inductor in the front-end of the beam-former, rendering the corresponding input non-functional until the beam-former is also replaced.

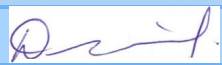
In order to prevent the damage, we decided to try repositioning the beam-former closer to the edge of the tile mesh and coiling the excess LNA cables underneath the beam-former, thereby limiting access to exposed cables.

Some further work needs to be done with this concept to ensure we avoid damaging the cables due to kinking as well as investigating other/additional methods of protecting the cables (eg. light mesh sheets or chicken wire covers over the cable bundles, etc.).

Photos overleaf showing the current implementation as of early 2018

Effective Date: (dd-mm-yyyy)	2018-01-01
Reason for given effective date:	This issue was identified during 2017 and a final solution is still pending.
Expected impact on cost (\$AUD):	Pro: Savings of Au\$30 per cable, plus repair/swap-out costs/time of beam-former. Con: Minor cost of re-laying and protecting cable during regular tile maintenance.
Impact on schedule:	If successful, reduces number of tiles needing to be serviced due to cables being chewed, prevents damage to beam-former inputs.
Other impacts:	None apparent.

Attached Document(s):

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**FIGURE 1: TOP VIEW OF NEW STYLE LNA CABLE MANAGEMENT**



**FIGURE 2: VIEW UNDERNEATH BEAM-FORMER SHOWING CABLE BUNDLING**