**20181004**
**Morning Shift (9A-1P L)**
**Ben Trabing**

0000 – Continue FAR scanning with no convection nearby.

0235 – Scans stopped for maintenance on the mast.

0240 – Resume scanning with FAR and surveillance.

**Afternoon Shift (1P-9P L)**
**Weixin Xu**

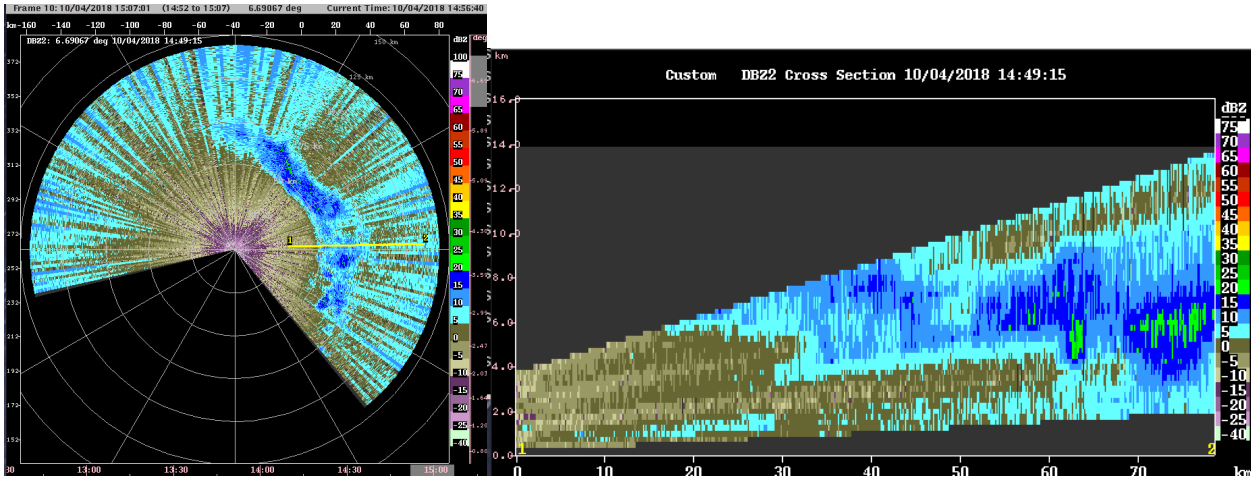
0400 – Radar operated in the SURVEILLANCE plus FAR_S mode, as there is virtually no convection near by (120 km range). SURVEILLANCE scan shows convection 200km to the northeast of the ship.

0620 – Radar stop operating for radar tour to some crew members.

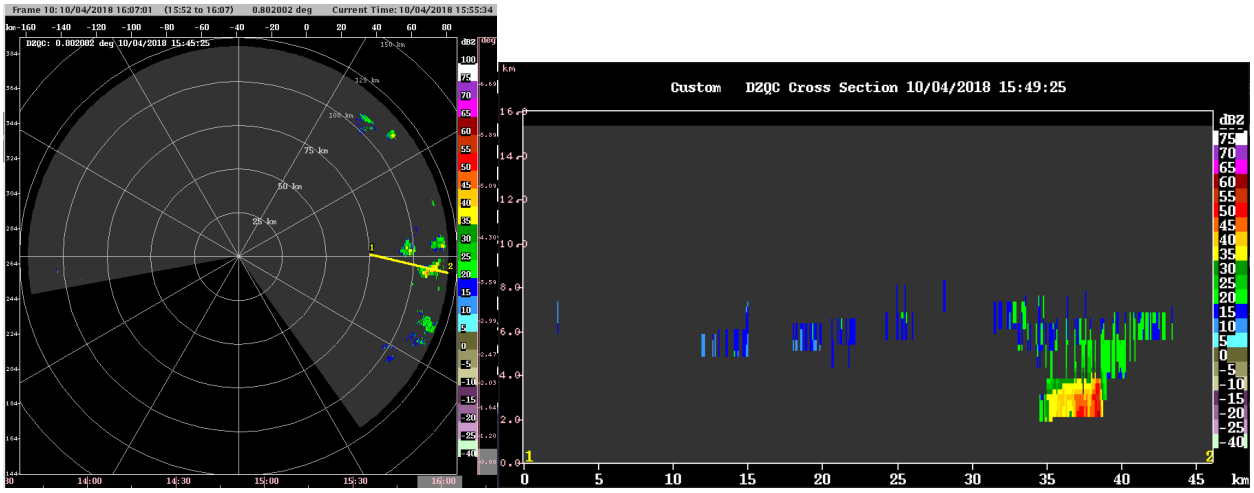
**Night Shift (9P-4A L)**
**Naufal Razin**

1341- It has been a dark and very not stormy night... Aside from a few small patches of precipitation to our northeast, the weather has been quiet – as expected. No change in the scanning strategy – surveillance and shallow far scans every 15 minutes.

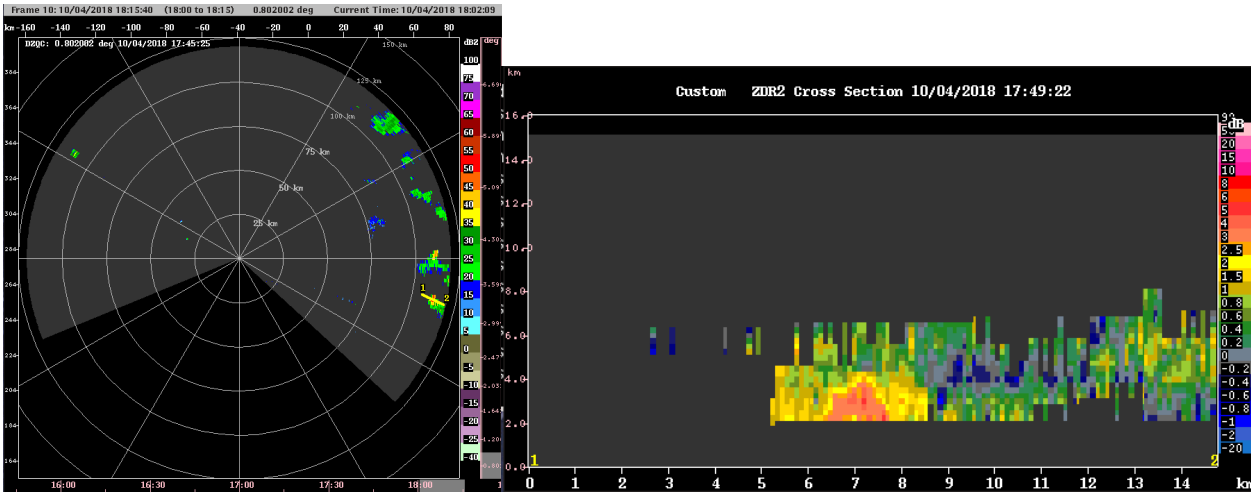
1456 – See following figure. There is an arc of 10-15 dBZ reflectivity extending from the north to the east. This arc gets closer to the radar as the scan elevation angle increases – very much like a stratiform signature. This arc is less prevalent in the QC-ed reflectivity, most likely because of RFI messing with the original reflectivity field. This arc is also only visible for scanning angles above 2 degrees. Elevation angles below 2 degrees would put the beam height just below the freezing level inside the radar's 120 km range. This has to be stratiform precipitation. But the question is, why can't we see any precipitation signature below the freezing level? RFI could be interfering with light stratiform rain to the point that we cannot observe it even in the raw data. The atmosphere cannot be dry enough to the point where all this stratiform precipitation evaporate before it reach the surface. So there must be light stratiform precipitation out there. We just can't observe it. I vaguely recall Scott Powell mentioning this fact during the crew change in Palau.




1554 – High reflectivity observed at low elevation angles, to our east. Looks likely to be shallow convection embedded in the stratiform precipitation mentioned above. The ZDR in this shallow convection is pretty high – 3 dB below 4 km.




1802 – Shallow convection to the east associated with high ZDR.



**Morning Shift (4A-9A L)**
**Ben Trabing**

1900 – There is no convection within the radar domain. Continue FAR scanning with surveillance.

2200 – A small blob of convection towards the northeast is now in range as the ship moves slowly to the north. Switch to LOW to sample this convection more since there isn't anything else around the radar. It will likely dissipate since the moisture in the low levels is relatively low; however, we do have some decent CAPE and some weak low-level shear.

2230 – The small cell has died.

2340 – Radar scanning stopped for maintenance.