

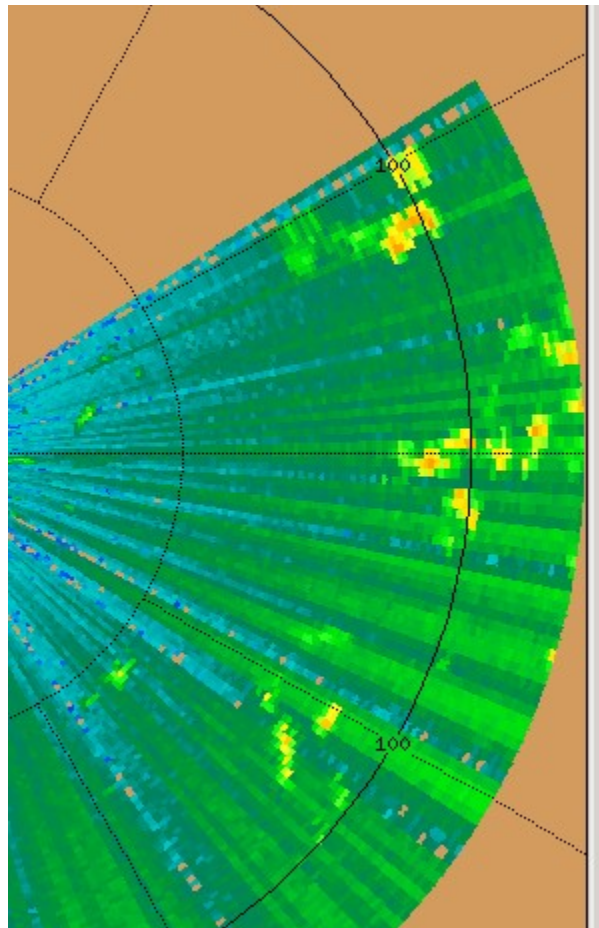
20180908
Day Shift (4a-4p L)
Timothy Lang

0101 – Radar back up, moving slowly in PISTON_LOW, which now takes over 13 min to complete (12-deg/sec). There are a few scattered cells about. We will run this until Jim George needs the radar back for maintenance, or it breaks again.

0121 – Radar's network seems to not be working much, except for being able to watch the camera feed. No website imagery or CIDD. This is evidently a separate issue that is still in work. Got a “No valid MLHGT product” message after last vol completed, but we continue to run.

0140 – Ship is turning, headed south on uCTD transect, evidently.

0216 – Some cells far to our east. Remaining in LOW. I also adjusted the FAR and NEAR scan rates, so those are options if need be.



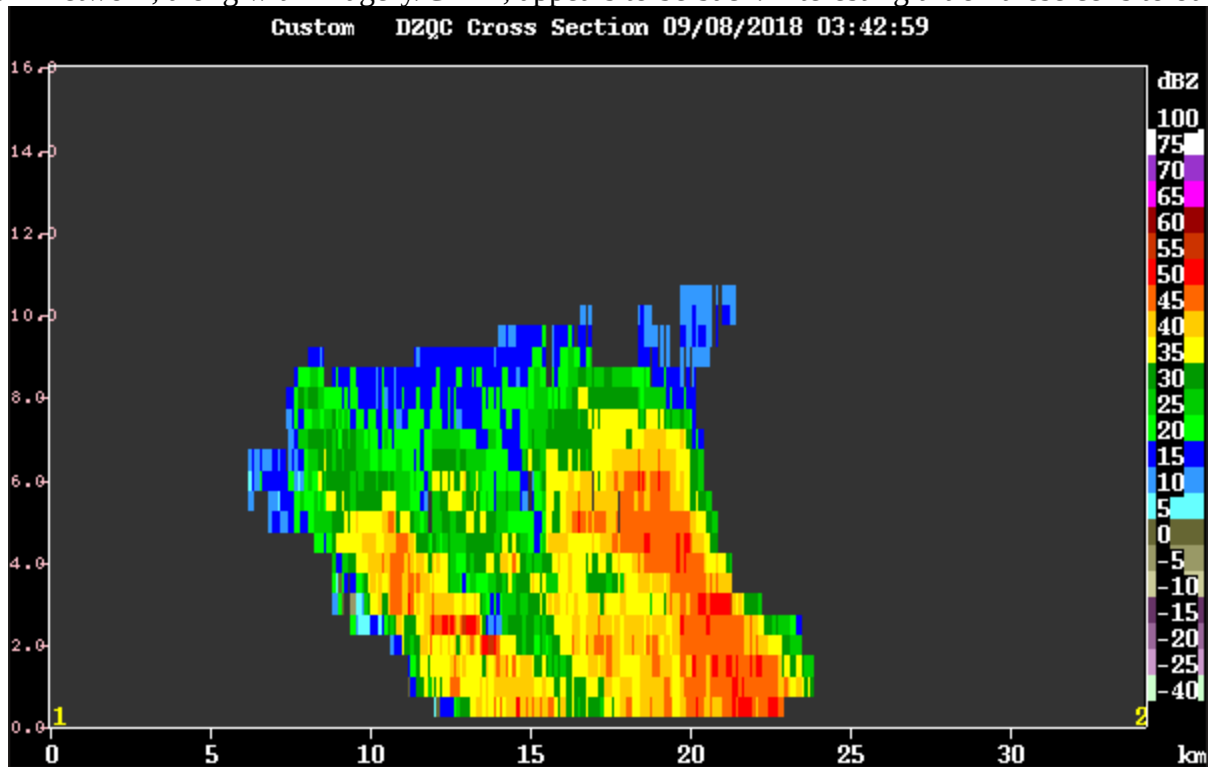
0246 – Convection to our E and SE has been sticking around. Echo coverage slowly increasing.

0324 – Cell right in front of us, switching to FAR next round.

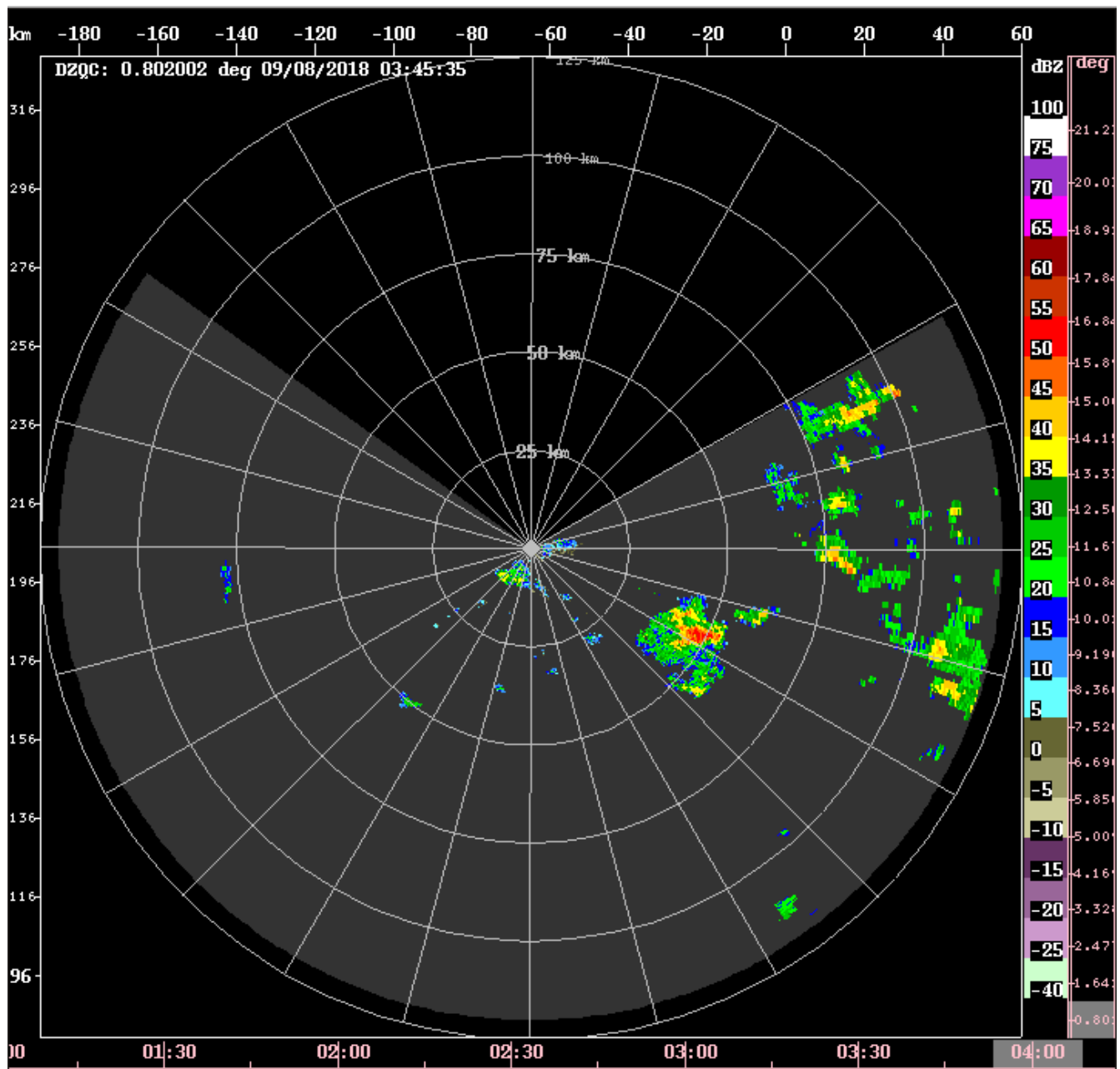
0345 – LOW did not top this cell we are aimed at, but it is so close and we will under-run it as it passes

south to north of us, that it is not worth switching to NEAR.

0350 – Network, along with imagery/CIDD, appears to be back. Interesting tilt on these cells to our SE.



0407 – Convection still looking strong to our E and SE. It is moving toward to NW given our ship motion. The main cell to the SE is ~10 km tall, with a strong precip core.



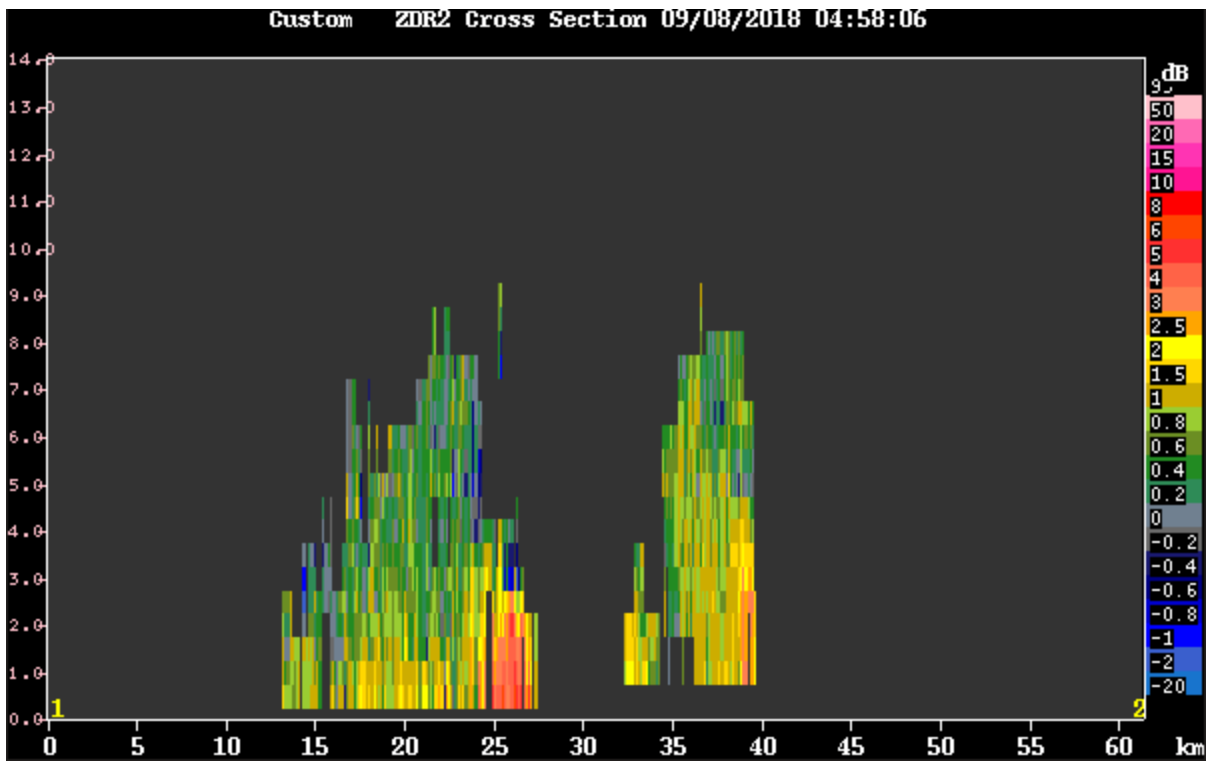
0421 – Switching to NEAR next round. Multiple cells near the radar, plus the big SE cell getting closer.

0428 – GPM overpass soon, around 0508 UTC. We'll be in the western radiometer swath.

0445 – Eastern storms starting to look more organized, via upscale growth. Switching back to FAR next round. Close storms moving off scope.

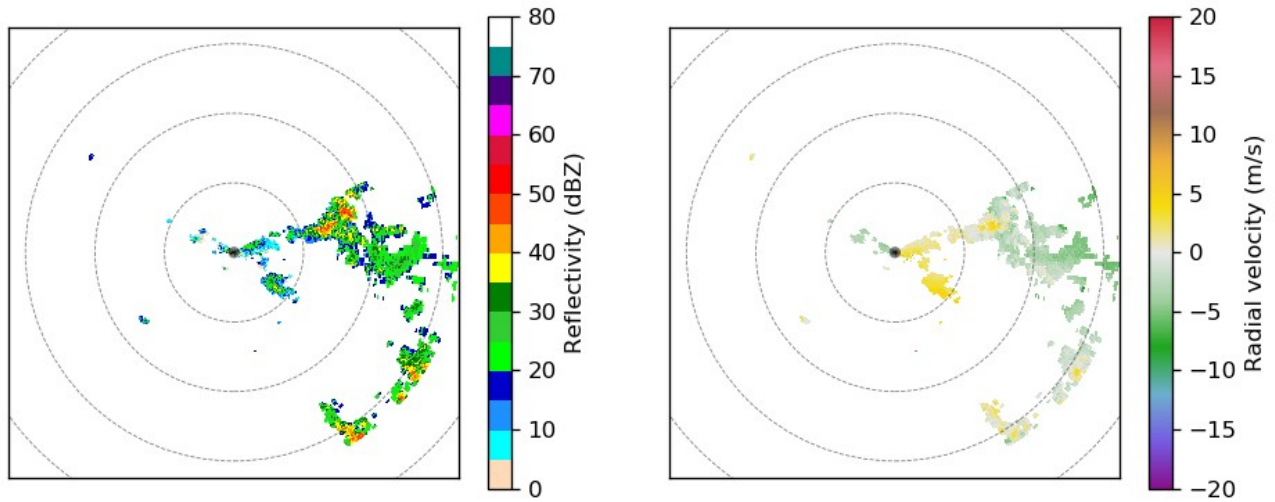
0504 – Convection in eastern sector in danger of moving off scope, thankfully not before the GPM overpass this round. That convection should be in the GMI swath.

0508 – More of these high ZDR shallow cores to our east.

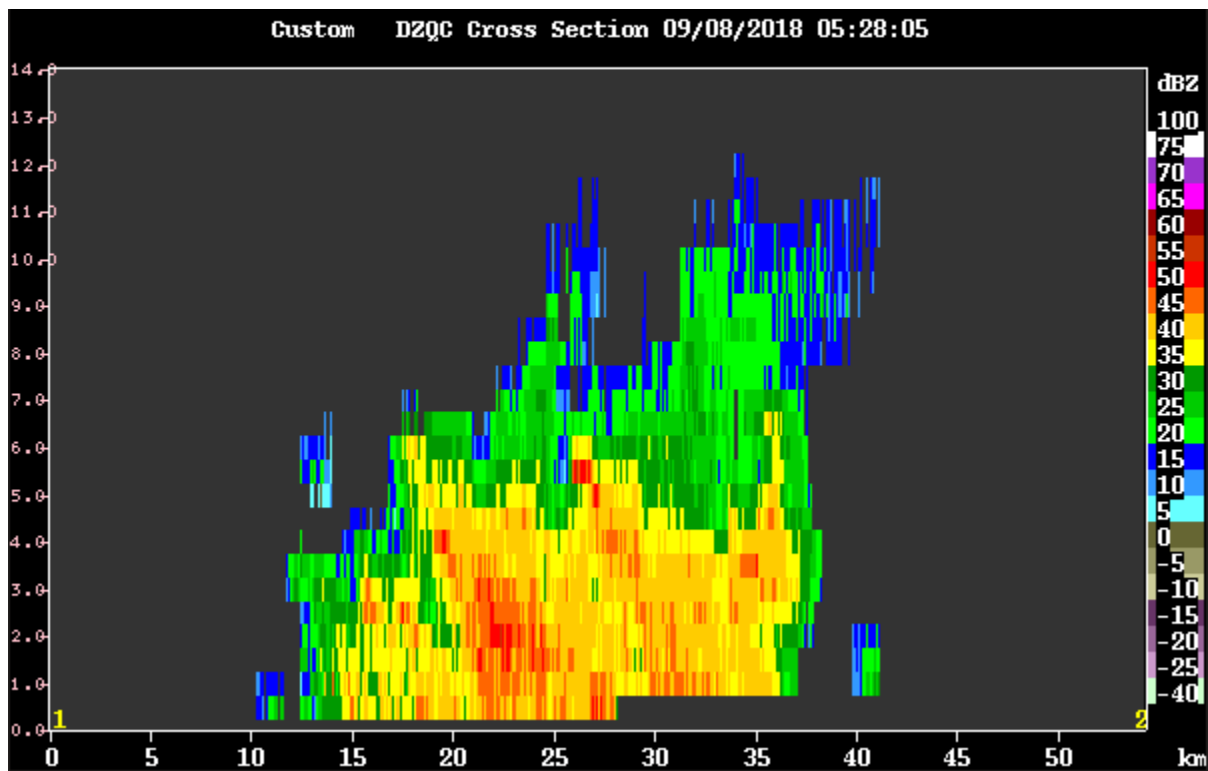


0517 – Here is how the low levels looked during the GPM overpass volume. Small organized system to our east, plus some distant cells just coming on scope.

SEAPOL 2018-09-08 05:00:04 PPI 0.8°



0534 – One last look at the eastern convective system before it moves off scope. SW-NE cross-section. Tops to around 12 km. Very healthy storm.



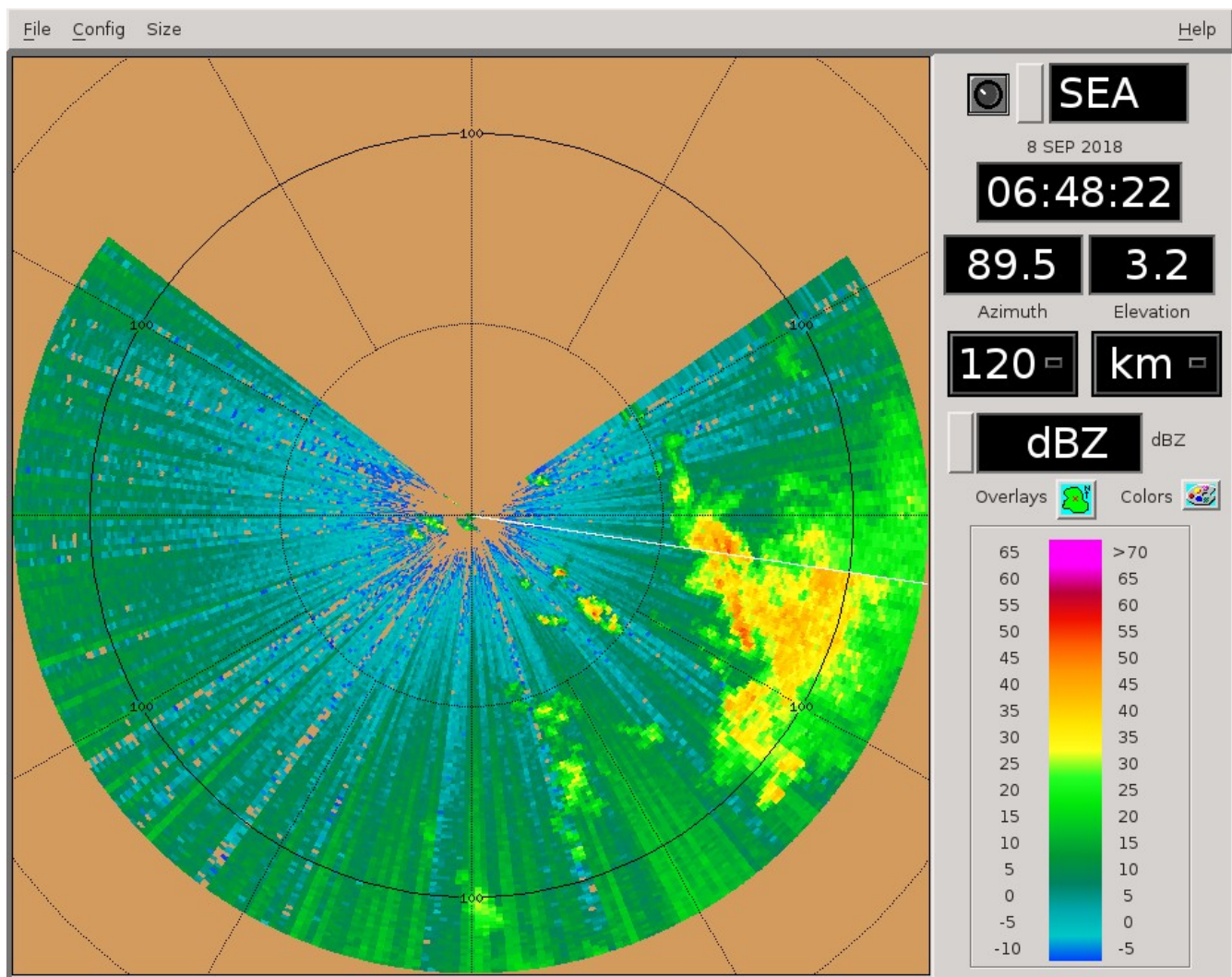
0538 – Moving back to LOW next round.

0547 – Couple new cells popping up between the eastern convection and the long-distance SE storms. At least one of these has a high-ZDR core.

0615 – The closer two SE storms have merged into a single line.

0633 – Many convective cells to our SE have been merging, forming a larger, more contiguous system.

0648 – Starting to see a well-defined stratiform region.



0649 – Scheduling FAR next round. Cells popping up nearby.

Shift Summary

Radar crashed an hour into the shift, while we were scanning leftover stratiform echo from the overnight MCS. Heroic efforts by Jim George revived the instrument by about halfway thru the shift. To limit stress on the damaged slip rings, and load on the electrical circuit powering the antenna, we have reduced the scanning speed and are remaining mostly in PPI volumes, which now take ~13m to complete (still keeping the 15m update cycle). For the latter half of the shift, scattered convection moved onto scope from the SE, as the shipped moved southward on a uCTD transect. A GPM radiometer-only overpass @ 0508Z contained some scattered storms to our east. Thereafter, convection tended to grow upscale toward mesoscale-sized systems.

Night Shift (4p-4a L)

Scott Powell

1345: FAR scan for this cycle.

1400: Cells growing around radar. Some have lightning.

1500: Changed sampling rate to 83 ($|PRF|/|new\ scan\ rate|$) for all PPI scan strategies.

1614: The GPM DPR swath is pretty far to our southeast. Running surveillance and not seeing anything down there. Will continue to run this until the end of the 1630 cycle for the 1637 overpass.

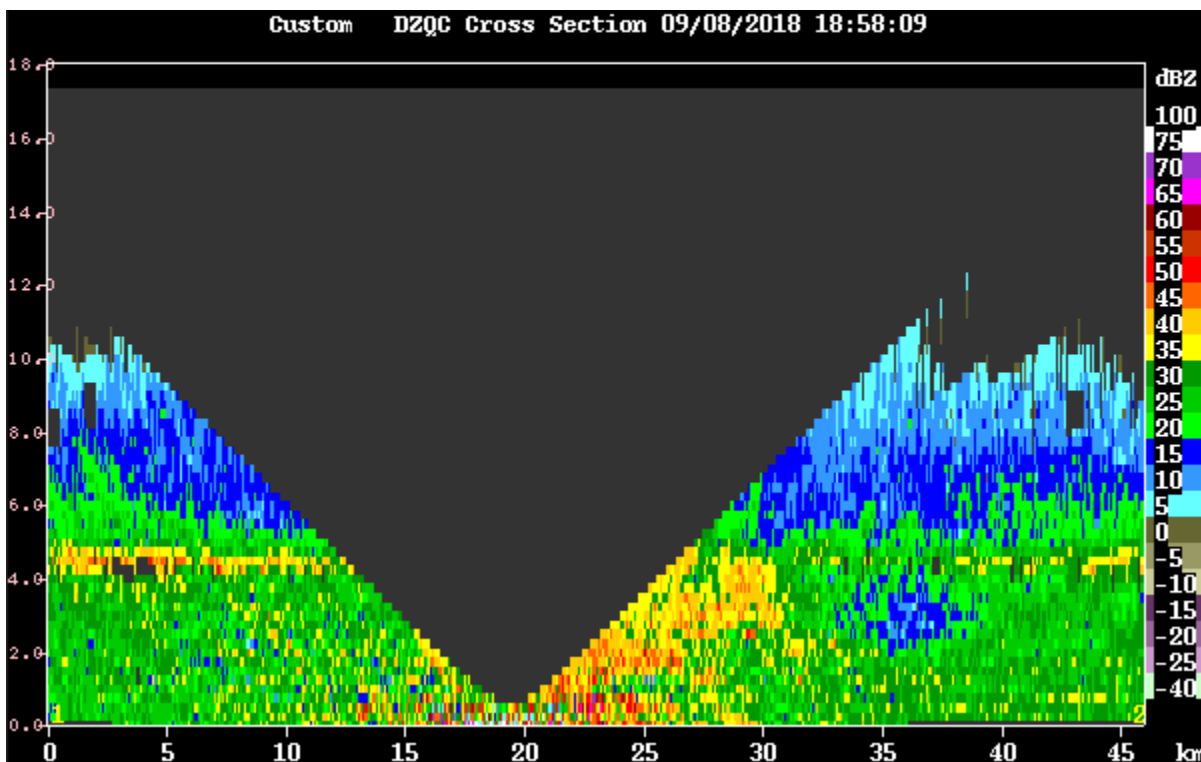
1637: Volume for GPM overpass has nice line of convection to SW of SEAPOL, but probably not in the DPR swath. Long-range scan shows little convection beyond the 125 km range of the volume scan. Stopping surveillance after this.

1748: Some of the convective cores around are 16 km tall.

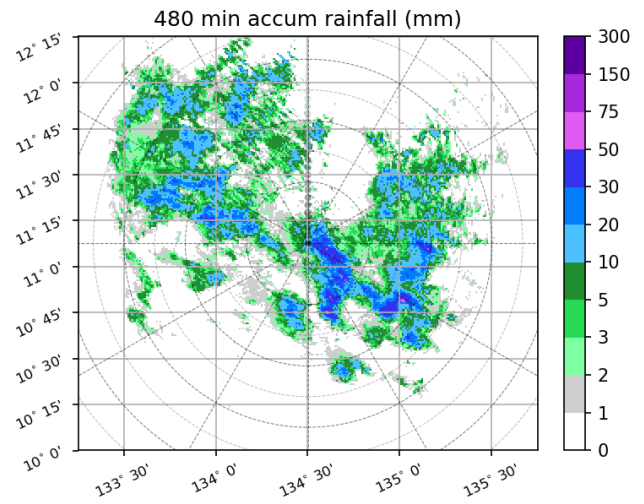
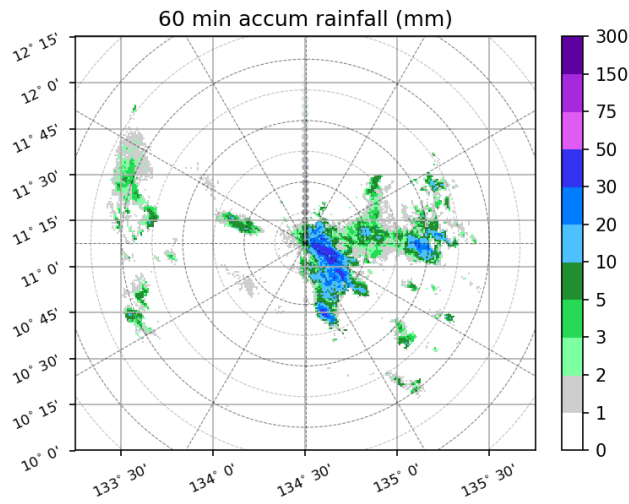
1832: Going to end with the NEAR scan. Most of the precip is within 75 km of the radar, and the deepest convection is fairly close to the radar. Once the precip passes, SEAPOL can rest for a few days.

Day Shift (4a-4p L)
Timothy Lang

1910 – Continuing with NEAR, significant rain at the ship. Looks like stratiform to our immediate west, and convective to our immediate east.



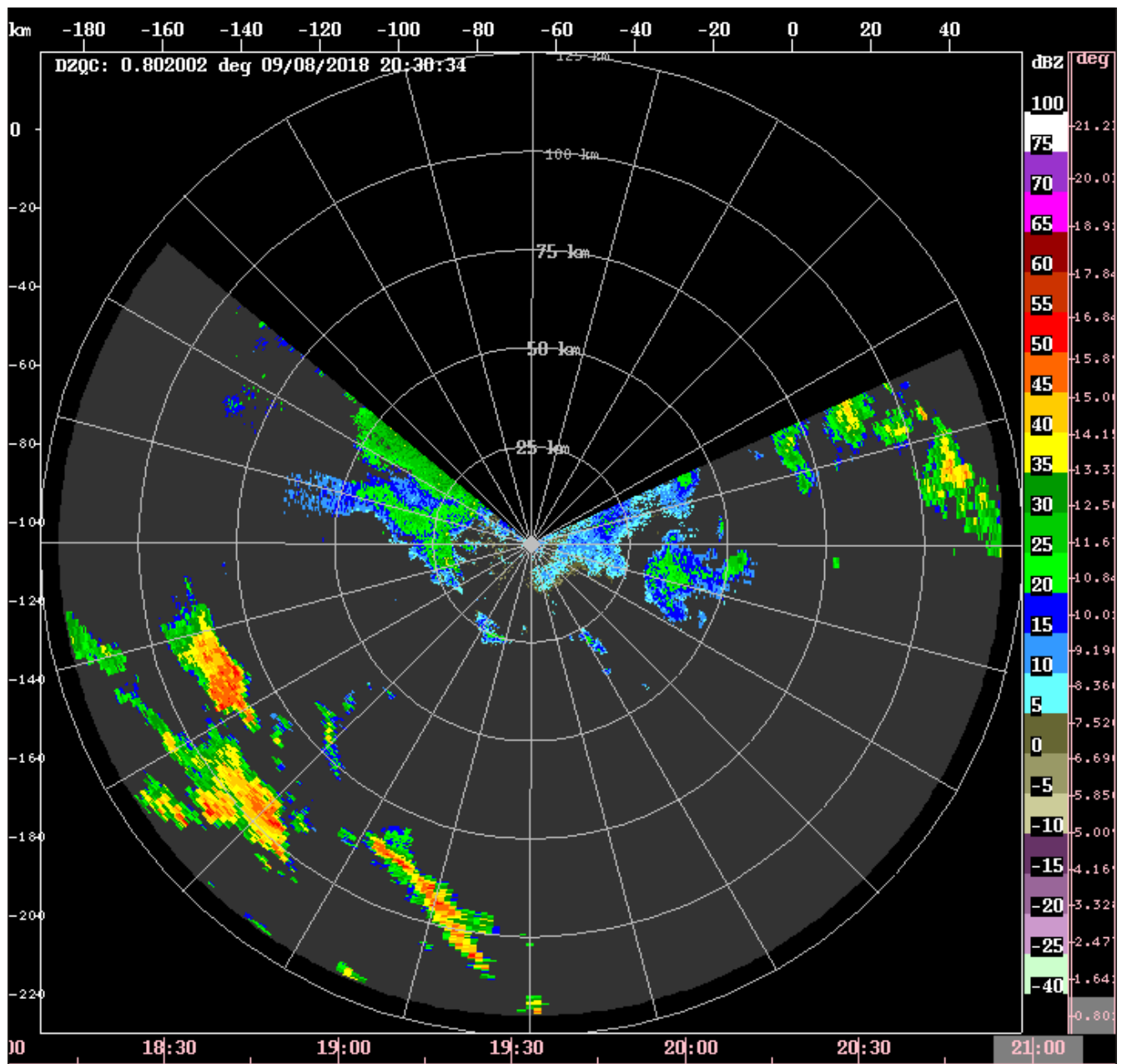
1915 – Significant rain near ship the past 1-8 h. Over an inch in points SE.



1921 – Switching to FAR next round, as the nearby convection is moving off scope and we will be left with stratiform rain in our immediate vicinity.

1958 – Letting this event play out, then going to secure the radar. Probably by 00 UTC, if not before. Depends what these convective lines far to our south do. Turning off SUR because anything out that far won't really be that relevant to us by the time we're off. Sounding ops are done with the 18 UTC launch today.

2057 – convection to our SW looks pretty good both visually at sunrise and on the radar scope.



2108 – Moving to LOW next round due to distance from SW convection.

2208 – SW convection continues to hang around. Slowly moving northward relative to the ship.

2315 – SW convection is in its decaying stage. Keeping with this until about 00 UTC.

Shift Summary

Abbreviated shift due to proximity to Palau. Finished up scanning the disorganized MCS that passed over us, plus some additional storms behind it. Radar secured by 00 UTC on 9/9/18.