20180827 Day Shift (4a-4p L) Timothy Lang

0007 – Restarting in PISTON\_MIRAI.

0126 - #StilllDry

0218 – Still suppressed. Scope essentially clear.

0315 – A few small cells have popped back up on the radar. Nothing worth RHIs yet.

0324 – Trying an RHI on a small cell near 50 az. Not very optimistic. Cells are really small for a single RHI sweep to be targeted well.

0330 – Hey, I hit it. 4 km tall.

- 0403 Canceling RHIs due to lack of good targets.
- 0444 Still sparse echo.
- 0516 RHI to near 87 to try to hit a small cell near 100 km. Not much else to do.
- 0530 Canceling RHIs.
- 0605 Slight increase in number of cells over past half hour, all still small/distant.

0625 – RHI to 305. Larger cell there about 75 km away. Ship has been pointed toward ~35 deg for a while now. Also moving well under a knot. Both are good news for the dual-Doppler lobes.

- 0632 Missed at 305, trying 300 this round.
- 0637 Hit on the RHI, tops 8 km!!!!!!!!!
- 0654 Canceling RHIs for now.

## Shift Summary

This shift was very quiet. One small cell that would have taken up more than a couple radar gridpoints passed thru the dual-Doppler lobes, but otherwise there were few viable DD or RHI targets. Cells were typically too small and the scope too sparsely populated. This was probably the most suppressed day shift to date.

Night Shift (4p-4a L) Scott Powell

1100: Convection beginning to get deeper to the east of SEAPOL. Thompson is too close to Mirai for meaningful dual-Doppler analysis aside from the stray isolated cell that may pass through.

1200: Some echoes are starting to have anvil advected off their tops toward the west, consistent with

flow indicated by soundings. Echo in far east of domain is up to 16 km.

1215: Lightning observed from bridge off starboard side.

1220: It's a deep convection kind of night. Several echoes growing laterally and getting quite tall. Most are east of us though. Currently wouldn't be surprised to get some sheared stratiform through the DD area later tonight.

1231: Echo in the far east of the domain extending up to near 20 km.

1312: Some convective echoes now starting to pass between Mirai and Thompson.

1334: Even the most intense echoes seem to have short life cycles. For example, the 20 km deep echo is dissipating currently. Lots of echoes depositing moisture in the upper troposphere. Anvil echoes visible to SEAPOL. RHIs are capturing some of this.

1630: Stopping RHIs. Mostly just a bunch of remnant echo leftover from decaying convection.

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

1901 – Fair amount of second trip on scope, plus stratiform to the east at range. This stratiform is getting chewed up by 2<sup>nd</sup> trip and RFI. Otherwise, mostly scattered pulse cells. Keeping RHIs off for now until I get my bearings.

1906 – TGT now aimed at 38 deg, moving a bit over a knot.

1909 – RHI to cell near 155 az, 50 km.

- 1918 Looks like some small cells in the lobes right now. Canceling RHIs again.
- 1949 RHI to ~85 to cover nearby convection, likely within lobes.
- 1953 Trying another cell, RHI to 5.
- 2015 Echo coverage continues to increase. Multiple cells in lobes.
- 2020 RHI to 10 az. Raining at ship.

2030 - RHI switched to 20. Nearby cells are ~6 km tall. There is a more distant cell, beyond the lobes that is 10 km tall.

2116 – Lobes have mostly cleared out, but there are still cells around. RHI has been focused on cell near 15 az, 75 km. This cell about 10 km tall.



SEAPOL 2018-08-27 21:14:30 RHI 13.0°

2134 – Mirai skin paint visible on lowest tilts, about 40 km to our SE.

2153 – RHI to 80 az to capture larger cell near 100 km.

2201 – Only northern lobe is really visible to SEAPOL right now. Ship oriented toward 10 deg, and cannot change due to winds and nearby squalls. Not much near lobes anyway. Most convection is distant.

2232 – Maintaining RHIs on this distant cell to E. Looks like it was ~13 km tall recently.



## SEAPOL 2018-08-27 22:14:31 RHI 87.0°

2235 – There is a CYGNSS overpass around 0635 on 8/28. RHIs ideally should focus on ~60 and ~232 az, on convection within ~10 deg of those radials.

2253 - Eastern storm falling apart. Trying RHI @ ~75 az to check out a fresher cell. This one smaller tho, so RHI more of a crapshoot. CIDD suggests this cell is 8 km tall.



- 2300 RHI suggests maybe even 10 km tall.
- 2308 RHI to 125. Distant small cell and some stratiform down that way. Lobes still pretty clear.
- 2323 Trying RHI on a distant cell near 85 az. Still pretty marginal and distant targets.
- 2330 Canceling RHIs for a bit, until we getting something bigger or within 75 km range.
- 2341 Barely anything on scope within 75 km.
- 2355 SQI filter increased back up to 0.45, mostly removing the second trip again.