

OPS-0203 (03 February 2020)

Lutz Hirsch

(compiled 03.02. 12:00 LT)

1. Facility updates

- **Local logistics:** Please, if you drink coffee donate into large box next to the coffee machine. If entering the OPS center late or early, please say hello to the MetService personell, so they know someone is around. We will be working for additional key-cards for the building.
- **ATR-42:** Two successful flights yesterday. All instruments worked well. Flew regular pattern with some excursions into the Flower. Today Day-off. Plans for two coordinated flights on Wednesday with early take-off together with HALO.
- **RAAVEN, BOREAL and Skywalkers:**
- **Boreal:** Sunday 02 February: take off at 0830LT in front of ~ 20 persons coming to see it (open house). Flew 4 circles at 400m, 100m, 50m (first time that it flew at 50m for 100km, the circumference of the circle) and 700m (interrupted half way to go to 150m due to air-traffic demand). The CPC works well for the entire flight. Total duration ~5h45 for about ~600km. Next flight planned for Wednesday at 06:30LT.
- **Skywalker:** Sunday 02 February: Chasing a cloud well in the morning but then issue with the GPS, solved by changing the GPS antenna. Test flight in the afternoon. Ready for future flights on Tuesday as Monday is a day-off
- **Raaven:** Will always do the same pattern: one vertical profile up to 1000m and then legs of approx. 2km at different levels in the boundary layer.
- **HALO:** Successful flight yesterday with take-off at 7:30 LT. GPM underflight at 08:00 LT , 7 dropsonde circles, clover leaf patten worked well. All instruments worked well, lost 1 h of 183 GHz radiometer after start. Today Day-off. Ground-Day of Tuesday. Next scientific flight on Wednesday with take-off 05:00 LT.
- **Twin Otter:** Very good first flight yesterday. Reached Flower at highest flight level, and flew several legs a lower levels in the norther part of the Flower. Second flight had to be canceled due to technical problems. Today Day-off. Tuesday coordinated flight with RSS aircraft (take-off 13:30 LT) under discussion. Wednesday 2 flights are planned with take-off time 7:30 LT.
- **WP-3D:** Flying today with take-off at 09:30 LT and nominal duration 8h. Pattern consisting of: i) Outbound leg to drop sonde circle, ii) Drop sonde circle, iii) Water vapor isotope profile and approach to AXBT module or cloud module, iv) AXBT module: v) Cloud module x 2, vi) Inbound leg to Barbados. No sondes on out- and inbound leg. Tuesday and Wednesday perhaps with minor tweaks. Deconflict with other a/c by performing all activities east of 56.6. All transits through HALO circle should be performed at or above 16,000ft, unless cleared by other a/c. Next flights panned for Tuesday and Wednesday. Followed by 3 night flights (Sat., Sun, Mon.) with take-off at 22:00 LT.
- **BCO:** All systems are up and running. Construction work for PoldiRad finished, power by generator available, successful test yesterday. Possibly transmitting by today. Measurements at Ragged point are all running as well.
- **L'Atalante:** Yesterday made a southwest route to reach the strongest cold and fresh water pool of the region, enveloped by a very intense sea surface temperature front. In the way to the cold water pool we deployed 4 NOAA and 4 French drifters, all equipped with sensors to measure the very upper layer stratification that has an enormous role on air-sea interactions. There we met again with the Maria S Merian to undertake joint frontal crossovers, measuring contemporarily the ocean and atmosphere and the small scales that develop in frontal areas. For 20 hours are undertaking the frontal crossovers with the Maria S Merian.
- **S. Merian:** Steam south for the cold/freshwater filament air/sea interaction study to be executed jointly with L'ATALANTE/ MERIAN. Three Bio CTD casts in 350m WD, then moving into shallower water. To meet again with the L'ATALANT for the joint survey. Staring survey along zigzag track crossing the front several times. Had to stop radiosounding to ensure enough radiosondes are available for the visit to trade wind alley, starting on the 07. Feb. Fortunately ATALANTE could completely take over radiosounding during the cold filament study. MPCK could not be launched because of no flight permission for this area. Stop zig zag sampling of the front by noon and steam to 9N (Piarco) for launch of MPCK (ETA Tuesday noon). Hope to find clouds.
- **Meteor:** Collecting statistics along the Meteor 57.245W longitude. In the southern (more convective region). CTD casts every 3 hours and 7 radiosondes launched. After the cloud-kite night

session headed (westward) back to the main longitude for a CTD at dusk (with local precipitation from a convective cell). Headed south and reached the southern turning point at about noon. The afternoon were heading back towards the north. Were heading northward along the track until received an emergency call from the MERIAN to retrieve one of their damaged gliders. After the glider rescue we will continue on the track in a northerly direction..

- **Ron Brown:** The Brown will remain on station at the P3Point (P3P - 13° 54' / 54° 30') to obtain continuous measurements of the aerosol, BL, clouds, and ocean properties. Good dust event continues for aerosol observing. Next P3 flight anticipated on Feb 3rd. Regularly deployed balloons, rosette CTD to 400 m at 0900 AST and uCTD to be lowered at odd-hour times throughout the 24 hour period will continue.
- **Autonaut:** AutoNaut Caravela was launched Wednesday and was heading east, south of the island. PLANET shows position East of Barbados.
- **CloudKite:** see METEOR and Maria S.Merian reports.

2. Plans

The outreach activities for presentations at schools in week 3 and 4 on Mondays, Tuesdays and Thursdays continue. Please check white-board in OPS for details.

Barbecue planned for Wednesday February 5th at Miami Beach at 16:00 - 16:30 LT.

3. Issues

no issues

4. Flight Alert

Monday 03 February 2020

- no flights of HALO, ATR and TwinOtter
- P3 flight scheduled, take-off 09:30, nominal duration 8h
- Planes will be in the Alley between 09:30 LT and 17:30 LT!
- Contact Point: tbd.

Tuesday 02 February 2020

- no flights of HALO and ATR
- possible flight of TwinOtter and RSS, take-off 13:30 LT.
- P3 flight scheduled, take-off 09:30, nominal duration 8h
- Planes will potentially be in the Alley between 9:30 and 18:30 LT!
- Contact Point: tbd.

Wednesday 03 February 2020

- coordinated flights with HALO, ATR and TwinOtter, first take-off 05:00 LT.
- P3 flight scheduled, take-off 09:30, nominal duration 8h.
- Planes will be in the Alley between 05:00 and 17:30 LT!
- Contact Point: tbd.