

OPS-0130 (30 January 2020)

Lutz Hirsch

(compiled 01.30. 12:30 LT)

1. Facility updates

- **Local logistics:**
- **ATR-42:** Today short (4h) coordinated flight with take-off at 07:13 LT. On Friday 2 coordinated flights planned with HALO take-off at 11:00 LT, refueling and a second flight in the afternoon.
- **RAAVEN, BOREAL and Skywalkers:** The Boreal drone has made three flights since the beginning of the campaign. Saturday 25 January: Test flight of 1h30 for a total traveled distance of 142 km. Sunday 26 January: First scientific flight of 2h50 for a total traveled distance of 286km, Tuesday 28 January: Second scientific flight of 4h20 for a total traveled distance of 430km. Flying on a circle with a 16km-radius around the Boreal Center (on the line between BCO and Halo circle, 13.1929°N, -59.0651W). Conducted the first circle at 400m AMSL, a second at 100 m AMSL and started a third circle at 700m AMSL and flew through clouds. For the return, profile up to 1000m AMSL and conducted a leg of several km; descended to 100m AMSL and conducted a leg of several km before landing. Next flight planned for Friday take-off planned for 1230LT for 5h30 of flight
- **HALO:** Today coordinated flight Thursday (4h) with race-track pattern over ATR pattern, GPM underflight and leg towards area with Saharan dust. Take-off 07:19 LT. 4 dropsondes planned. Tomorrow take-off 11:00 LT for coordinated flight with TwinOtter and ATR. Pattern: 2 times 3.5 dropsonde circles with excursion towards NTAS buoy. No radar calibration maneuver at the turning point. Ground-Day on Saturday.
- **Twin Otter:** Today take-off 07:05 LT for coordinated flight (4h) with HALO and ATR. Tomorrow plans for two coordinated flights with HALO and ATR. First take-off today at 09:30. Refueling around noon. Second flight thereafter.
- **WP-3D:** Return expected for tonight, next scientific flights on Friday with take-off at 11:30 LT for 8h, 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. 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 planned for Monday, Tuesday, Wednesday next week.
- **BCO:** All systems are up and running. Construction work for PoldiRad finished, waiting for power. Measurements at Ragged point are all running as well.
- **L'Atalante:** Yesterday headed in Suriname waters to sample a cyclone lying in Suriname waters. Preliminary results that also this structure has a very thin shape. As this is already the fourth eddy that Maria S Merian and Atalante met, conclude that they are in a corner where the ocean internal dynamics produce intensively "pizza-eddies"! Started to analyze high-resolution Sea Surface Temperature images from JPL-MUR and CLS together with the clouds patterns captured by GOES ... and it really seems that fishes, sugars, flowers, and gravel feel the ocean very much!
- **S. Merian:** no update for today
- **Meteor:** Yesterday no cloud-kite observations - just regular radiosonde launches and CTD stops. At noon reached the southern point and turned around in the northern direction. Arrival of dust plume at relatively low altitudes (1800-800m by the lidar) was even visually noticed. Wind-lidar group is particular happy with the extra aerosol at higher altitudes, biology group is curious on impacts from potential dust depositions. Shallow water profiling probing with a p/T sensor on the rod was moved to the bow for more undisturbed sampling. The UAV group now derives near surface winds. Early today morning will reach the most northerly point above L1 and then go SW diagonally to the west side of the METEOR box for two 40 mile eastern legs into the wind (just north of the along the L1 latitude) for cloud- kite samples: 10-15 LT and 20-01LT.
- **Ron Brown:** Today are moving around to recover the Wave Glider and deploy the Swifts. Will be north of 14 degrees (up to 14 deg 28.249') later this afternoon to capture an interesting ocean front and deploy the drifters across it. Afterwards, later tonight, we will be back at our P3P (13.9 N / 54.75 W). As always, balloons are launched on our regular schedule. The 12Z balloon popped at 24,225 m
- **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. Input suitable for age group 10-12 and 13-15 is still needed.

„From BOMEX to EUREC4A“ from Friday afternoon (starting 14:00 LT) to Saturday (starting 09:00 LT) at CIMH.

An additional outreach activity with site visits (BCO, UAV site, possibly Ragged Point and PoldiRad) is planned for Sunday 14-17 LT.

(Site crews, please make sure the sites can be visited or please report if not possible!)

Plans for Movie Night for February 4th, location tbd.
Barbecue for today canceled. New attempt next week.

3. Issues

no issues

4. Flight Alert

Friday 31 January 2020

- coordinated flights with HALO and ATR, take-off 11:00 LT
- Flight of Twin Otter, take-off 09:30 LT
- Flight of P3, operating outside of 56.6W, take-off 11:30 LT
- Planes will be in the Alley between 09:30 LT and 20:00 LT!
- Contact Point: Marc Prange <marc.prange@uni-hamburg.de>

Saturday 01 February 2020

- - no flights planned up to now--