| **MISSION PLAN** | | | |
| --- | --- | --- | --- |
| **FLIGHT ID** | 20230823I1 | **STORM** | AL08/Franklin |
| **MISSION ID** | 0508A | **TAIL NUMBER** | NOAA-43 |
| **TASKING** | NHC-EMC TDR | **PLANNED PATTERN** | Landfall Circumnavigation |
| **MISSION SUMMARY** | | | |
| **TAKEOFF [UTC]** | 1449 | **LANDING [UTC]** | 2018 |
| **TAKEOFF LOCATION** | Aruba | **LANDING LOCATION** | Lakeland |
| **FLIGHT TIME** | 5.5 | **BLOCK TIME** | 5.9 |
| **TOTAL REAL-TIME RADAR ANALYSES**  **(Transmitted)** | 2 | **TOTAL DROPSONDES Deployed (Transmitted)** | 9 (9) |
| **OCEAN EXPENDABLES (Type)** | n/a | **sUAS (Type)** | n/a |
| **APHEX EXPERIMENTS / MODULES** | n/a | | |
| **HRD CREW MANIFEST** | | | |
| **LPS ONBOARD** | Marks | **LPS GROUND** | Hazelton |
| **TDR ONBOARD** | Marks | **TDR GROUND** | Reasor |
| **ASPEN ONBOARD** | AOC FD | **ASPEN GROUND** | n/a |
| **NESDIS SCIENTISTS** | n/a | | |
| **GUESTS (Affiliation)** | n/a | | |
| **AOC CREW MANIFEST** | | | |
| **PILOTS** | Copare/Wood/Palmer | | |
| **NAVIGATOR** | Miller/Schaefer | | |
| **FLIGHT ENGINEERS** | Darby/Tyson | | |
| **FLIGHT DIRECTOR** | Kalen/Parrish/Timmers | | |
| **DATA TECHNICIAN** | Richards | | |
| **AVAPS** | Wagonner/Kotz | | |

| **PRE-FLIGHT** | |
| --- | --- |
| **Flight Plan** | *Island circumnavigation is planned en route back to Lakeland, since the center of Franklin is over the island of Hispaniola.* |
| **Expendable Distribution** | *9 drops planned* |
| **Preflight Weather Briefing** | *Franklin is over the island of Hispaniola.*    *Vertical wind shear is still fairly strong over the storm as well, but the upper low to the west appears to be retrogradign some, and so the outflow is improving over the cyclone.* |
| **Instrument Notes** | *Instruments appear to be functioning normally.* |

| **IN-FLIGHT** | |
| --- | --- |
| **Time [UTC]** | **Event** |
| 1449 | Take-off from Aruba |
| 1503 | *TDR is up* |
| 1547 | Onboard LPS notes some tops to 14-15 km |
| 1552 | Descended to 11 kft |
| 1556 | IP, turn TK 080, Drop 1 |
| 1601 | The outer band seems to be weakening now, and the core is becoming a bit disrupted by the terrain. |
| 1615 | Drop #2, in heavy stratiform |
| 1622 | Descending to 10 kft |
| 1626 | looking pretty convective in 10 nm as we cross a major N-S rainband |
| 1627 |  |
| 1631 | Echoes to 18 kft and lightning |
| 1634 | 19 m/s updraft and 5 m/s downdrafts |
| 1634 | Sonde 3, dipping S to avoid cells |
| 1642 | Many N-S rainbands separated by 20 nm out here on the east side of the system. cells with tops to 15-17 km |
| 1645 | picking our way through the intense convective cell minefield out here |
|  |  |
| 1653 | Drop 4, dropped early to avoid a ship |
| 1705 | Drop 5, turn TK 300 |
| 1721 | Sonde 6, ON the N edge of strat precip from major rainband |
| 1730 |  |
| 1734 | Drop #7 |
|  |  |
| 1750 | Drop #8 |
| 1806 | Drop #9, end pattern, turn TK 310 climb to 24 kft |
| 2018 | Landed KLAL |

| **POST-FLIGHT** | |
| --- | --- |
| **Mission Summary** | *The circumnavigation of Hispaniola through the storm was successfully executed. There was quite a bit of heavy convection on the east (downshear) side of the storm, including an updraft of 19 m/s.*    *The storm appears to be holding together somewhat despite passing over Hispaniola.* |
| **Actual Standard Pattern Flown** | *Circumnavigation* |
| **APHEX Experiments / Modules Flown** | *N/A* |
| **Plain Language Summary** | *-> We flew a mission around Tropical Storm Franklin while it was over Hispaniola*  *-> There were some strong thunderstorms in a rain band on the east side.* |
| **Instrument Notes** | *Instruments functioned properly. There were some transmission issues of the final TDR analyses (the files going to SEB).* |
| **Final Mission Track** |  |