

ORACLES - P-3 Orion - WFF 10/23/18 Science Report

Aircraft: [P-3 Orion - WFF \(See full schedule\)](#)

Date: Tuesday, October 23, 2018

Mission: ORACLES

Mission Location: Sao Tome

Mission Summary:

Survey flight going west along 5S, preceded by high-altitude leg along 5E. Square spiral at 3W, 5S, followed by 3 cloudy boundary layer samples, all west of 5E, on the way back. Persistent aerosol layer at 6-7 kft, with overall low aerosol loading (max aod ~0.2). Low clouds extended to north of 5S, were typically precipitating. Boundary layer only very mildly polluted. In 2nd BL, a double-layered stratocumulus cloud had higher Nd in the lower layer compared to the upper layer. APR had a good day, with data gathered at all 3 frequencies. Square spiral at 3W included 3 level leg circuits as part of a wind calibration.

Submitted by: Paquita Zuidema on 10/26/18

File:

 [PRF13_23October2018_ScienceReport_full.pdf](#)

Related Flight Report:

P-3 Orion - WFF 10/23/18

Flight Number: ORACLES Science Flight #13

Payload Configuration: ORACLES

Nav Data Collected: No

Total Flight Time: 8.1 hours

Archive Data: [20181023](#) (78 binary files; 24 archive (plain-text) files; 39 image files)

Submitted by: Mike Cropper on 10/23/18

Flight Segments:

From:	FPST	To:	FPST
Start:	10/23/18 07:47 Z	Finish:	10/23/18 15:50 Z
Flight Time:	8.1 hours		
Log Number:	19P018	PI:	Jens Redemann
Funding Source:	Hal Maring - NASA - SMD - ESD Radiation Science Program		
Purpose of Flight:	Science		
Miles Flown:	1800 miles		

Flight Hour Summary:

	18P004	19P018
Flight Hours Approved in SOFRS	188.5	
Flight Hours Previously Approved		144
Total Used	44.5	110
Total Remaining		34

19P018 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
10/02/18	ORACLES Science Flight #3	Science	8.5	8.5	135.5	1940
10/03/18	ORACLES Science Flight #4	Science	8.5	17	127	1970
10/05/18	ORACLES Science Flight #5	Science	9	26	118	2000
10/07/18	ORACLES Science Flight #6	Science	8.4	34.4	109.6	2000

10/10/18	ORACLES Science Flight #7	Science	8.3	42.7	101.3	1970
10/12/18	ORACLES Science Flight #8	Science	5.3	48	96	800
10/15/18	ORACLES Science Flight #9	Science	7.8	55.8	88.2	1700
10/17/18	ORACLES Science Flight #10	Science	8.5	64.3	79.7	2000
10/19/18	ORACLES Science Flight #11	Science	8	72.3	71.7	1800
10/21/18	ORACLES Science Flight #12	Science	8.2	80.5	63.5	1800
10/23/18	ORACLES Science Flight #13	Science	8.1	88.6	55.4	1800
10/25/18	ORACLES Transit #1	Transit	7.8	96.4	47.6	2009
10/26/18	ORACLES Transit #2	Transit	7	103.4	40.6	2100
10/27/18	ORACLES Transit #3	Transit	5.8	109.2	34.8	1692
10/27/18	ORACLES Transit #4	Transit	0.8	110	34	72

Source URL: https://airbornescience.nasa.gov/science_reports/ORACLES_-_P-3_Orion_-_WFF_10_23_18_Science_Report#comment-0

Page Last Updated: April 22, 2017

Page Editor: Brad Bulger

NASA Official: Bruce A. Tagg

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

18P004 Flight Reports						
Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining	Miles Flown
09/17/18	ORACLES ATF	Check	1.3	1.3	187.2	0
09/19/18	ORACLES PTF	Check	3.7	5	183.5	0
09/21/18	ORACLES Transit #1	Transit	6.3	11.3	177.2	1716
09/22/18	ORACLES Transit #2	Transit	8.2	19.5	169	2131
09/24/18	ORACLES Transit #3/Science Flight	Transit	9.3	28.8	159.7	2500
09/27/18	ORACLES Science Flight #1	Science	8	36.8	151.7	1875
09/30/18	ORACLES Science Flight #2	Science	7.7	44.5	144	2400