



# MONTHLY OPERATIONS REPORT

**MOR#102**

**Reporting period from 16-May-2022 to 15-Jun-2022**

**Reference: *PROBA-V\_D5\_MOR-102\_06\_v1.0***

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## DOCUMENT CONTROL

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## 1. Summary

Since October 2021, the PROBA-V mission seized its acquisition activities. The PDGS activities are focussing on off-line dissemination of the entire archive, next to the exploitation activities in the PROBA-V MEP.

All activities were nominal in the last month. Four new users registered that actually downloaded products.

In terms of the C2 reprocessing activities, the focus is on provision of period October 2013 – December 2017. At the time of writing, we are processing December 2014.

## 2. System Infrastructure

Category	% Up Time	% Down Time
Switches	100.0	0.0
Database Servers	100.0	0.0
Mid Term File Servers	100.0	0.0
Short Term File Servers	100.0	0.0
Master Servers	100.0	0.0
Worker Nodes	100.0	0.0
PDF	100.0	0.0

*Table 1: System Infrastructure availability for this reporting period*

## 3. Image Processing Services

### 3.1. Dissemination service

Product type	Added to catalogue	Ordered	Delivered
PROBAV_L1C	0	0	0
PROBAV_L2A_100M	0	0	4
PROBAV_L2A_300M	0	1	18
PROBAV_L2A_1KM	0	0	0
PROBAV_L3_S1_TOA_100M	0	0	1
PROBAV_L3_S1_TOC_100M	0	0	0
PROBAV_L3_S1_TOC_NDVI_100M	0	0	1
PROBAV_L3_S5_TOA_100M	0	0	0
PROBAV_L3_S5_TOC_100M	0	838	848
PROBAV_L3_S5_TOC_NDVI_100M	0	0	2
PROBAV_L3_S1_TOA_300M	0	0	0
PROBAV_L3_S1_TOC_300M	0	0	0
PROBAV_L3_S10_TOC_300M	0	0	0
PROBAV_L3_S10_TOC_NDVI_300M	0	0	695
PROBAV_L3_S1_TOA_1KM	0	0	1
PROBAV_L3_S1_TOC_1KM	0	0	1
PROBAV_L3_S10_TOC_1KM	0	73	77
PROBAV_L3_S10_TOC_NDVI_1KM	0	39	77

Table 2: Ordered and delivered products for this reporting period

### 3.2. End-user activity

4 new user(s) were registered in this reporting period.

The total number of users registered for PROBA-V data and that have ordered data is **2085** with **124** different nationalities representing **1496** different companies/universities.

Product type	Africa	Asia	Europe	N-America	Oceania	S-America
PROBAV_L1C	0	0	0	0	0	0
PROBAV_L2A_100M	0	0	0.41	0	0	0
PROBAV_L2A_300M	0	0	3.17	0.12	0	0
PROBAV_L2A_1KM	0	0	0	0	0	0
PROBAV_L3_S1_TOA_100M	0	0	0.15	0	0	0
PROBAV_L3_S1_TOC_100M	0	0	0	0	0	0
PROBAV_L3_S1_TOC_NDVI_100M	0	0	0.07	0	0	0
PROBAV_L3_S5_TOA_100M	0	0	0	0	0	0
PROBAV_L3_S5_TOC_100M	0	4377.83	4.51	0	0	0
PROBAV_L3_S5_TOC_NDVI_100M	0	0	0.19	0	0	0
PROBAV_L3_S1_TOA_300M	0	0	0	0	0	0
PROBAV_L3_S1_TOC_300M	0	0	0	0	0	0
PROBAV_L3_S10_TOC_300M	0	0	0	0	0	0
PROBAV_L3_S10_TOC_NDVI_300M	0	0	16.08	0	0	71.04
PROBAV_L3_S1_TOA_1KM	0	0	0.01	0	0	0
PROBAV_L3_S1_TOC_1KM	0	0	0.01	0	0	0
PROBAV_L3_S10_TOC_1KM	0	0.03	105.74	0	0	0
PROBAV_L3_S10_TOC_NDVI_1KM	0	0.31	0.11	0	0	0

Table 3: Data download (GB) in total per Origin of the User for the reporting period

Product Type	Global
L1C	0
PROBAV_L2A_100M	0.41
PROBAV_L2A_300M	3.29
PROBAV_L2A_1KM	0
PROBAV_L3_S1_TOA_100M	0.15
PROBAV_L3_S1_TOC_100M	0
PROBAV_L3_S1_TOC_NDVI_100M	0.07
PROBAV_L3_S5_TOA_100M	0
PROBAV_L3_S5_TOC_100M	4382.34
PROBAV_L3_S5_TOC_NDVI_100M	0.19
PROBAV_L3_S1_TOA_300M	0
PROBAV_L3_S1_TOC_300M	0
PROBAV_L3_S10_TOC_300M	0
PROBAV_L3_S10_TOC_NDVI_300M	87.12
PROBAV_L3_S1_TOA_1KM	0.01
PROBAV_L3_S1_TOC_1KM	0.01
PROBAV_L3_S10_TOC_1KM	105.77
PROBAV_L3_S10_TOC_NDVI_1KM	0.42

Table 4: Data download (GB) in total for the reporting period

Company	# Downloads
CHENGJIAN UNIVERSITY	837
JOINT RESEARCH CENTRE	639
UNIVERSITY OF CALABRIA	76
CARGILL	56
HHU	37
HOHAI UNIVERSITY	37
UNIV LISBON	17
FAO	12
NATIONAL SPACE FACILITIES CONTROL AND TEST CENTER	6
VITO	3

Table 5: Top 10 user companies for the reporting period

Country	# Users
CHINA	239
BELGIUM	172
INDIA	100
FRANCE	94
UNITED STATES	87
BRAZIL	86
ITALY	82
NETHERLANDS	71
UNITED KINGDOM	67
GERMANY	64

Table 6: Top 10 countries with most registered users

**List of issues raised by users:**

No issues were raised



## 4. Image Calibration services

In this phase in its lifetime, PROBA-V will acquire only a limited amount of segments, for accommodating instrument sanity, while it is in a hibernate condition. The instrument is kept in stand-by for reasons the thermal stability.

A limit number of calibration images are being acquired to monitor both radiometric and geometric sanity of the instrument. The acquisitions will serve both methods 'at once' as much as possible.

For radiometry it is decided that lunar measurements over the full cycle will be continued every month. As an addition to this, few dark current (DC) acquisitions are done to allow for the automated monitoring of the dark signal and bad pixel detection. The DC will be acquired from the nadir camera. The amount of calibrations in a month is limited to < 1 GByte in data to limit bandwidth.

To combine acquisitions for absolute radiometric and geometric calibration, Railroad Valley, which is an instrumented RadCalNet-site, is being targeted. The wider range area also contains quite a few geometric features to be used to perform a limited geometric assessment. A second site is currently under assessment to increase accuracy of the sanity check of the instrument and platform.



Figure 1: Railroad Valley area

## 5. KPI metrics

### 5.1. Management Service

#### 5.1.1. PROV-KPI-0010: Reporting

Report	Due Date	Delivery Date	Delay	Remarks
PROBAV_D6_MOR-101_2022_05_v1.0.pdf	20/05/2022	19/05/2022	0	
KPI value (1 if 100% within time)			1	

Table 7: PROV-KPI-0010 calculation for this reporting period

### 5.2. System infrastructure services

#### 5.2.1. PROV-KPI-0040: Network availability

Network	Issue	Reported at	Solved by	Delay	Remarks
LAN	None			0	
Inter-site	None			0	
Internet	None			0	
KPI value (1 if max. delay < 18h)				1	

Table 8: PROV-KPI-0040 calculation for this reporting period

#### 5.2.2. PROV-KPI-0041: System infrastructure availability

Issue	Reported at	Solved by	Delay	Remarks
None			0	
KPI value (1 if max. delay < 18h)			1	

Table 9: PROV-KPI-0041 calculation for this reporting period

## 5.3. End-user support services

### 5.3.1. PROV-KPI-0050: Helpdesk response time

Issue	Created at	Answered by	Delay	Remarks
No issues				
KPI value (1 if $\geq 95.0\%$ < 2 NWD)			1	

Table 10: PROV-KPI-0050 calculation for this reporting period

## 5.4. KPI evaluation

Each KPI is assigned a weighing factor (w) from 0 to 10, this weighing factor is used to calculate the service credits due according to the formula:

$$\text{Service Credit} = \frac{\sum_i w_i (1 - KPI_i)}{\sum_i w_i} \times \text{max Monthly Service Credit}$$

KPI Reference	Description	Metric	1-KPI	Weight	Result
PROV-KPI-0010	Reporting	1	0	10	0
PROV-KPI-0040	Network availability	1	0	6	0
PROV-KPI-0041	System infrastructure availability	1	0	6	0
PROV-KPI-0050	Helpdesk response time	1	0	9	0
Totals				31	0
Service credit coefficient				100%	
Service Credit				0	

Table 11: Service credit evaluation for this reporting period

# 6. Ongoing and future activities

## 6.1. Reprocessing activities

The first priority in the full C2 reprocessing activities was period January 2018 to June 2020. This whole period has been processed and is currently under validation.

During this reporting period, we are processing the first part of the archive being October 2013 to December 2017. At the time of writing, December 2014 is being processed.