

Data Management and Access Overview

2025-05-28

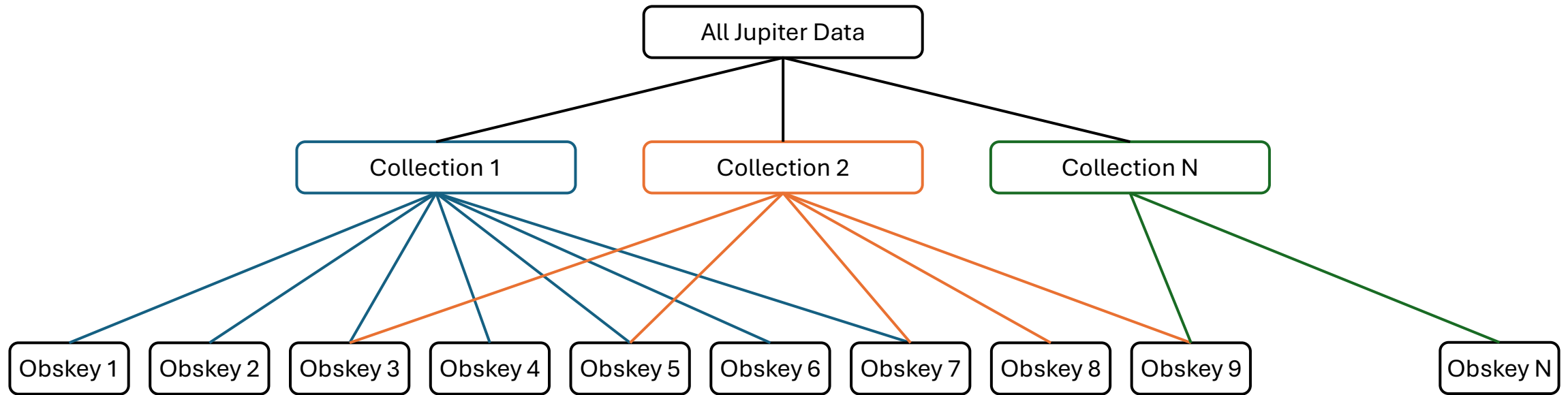
What comprises an ‘Observation?’

- A set of 11 videos in two categories:
 - The science video set includes four pairs of two-minute videos in the science wavelength bands
 - The context video provides an RGB optical image for context and interpretation of the science data
- Each observation is identified by an observation key (obskey):
 - YYYYMMDDUT<a-z>
 - Where a-z is a sequential index of the observations on that date
- ‘(Observing) Session’ is comprised of all observations on a given date

| Purpose | Center Wavelength (nm) | Video Duration (s) | Center Time (s) | Sys. 2 CM (deg) |
|----------------|------------------------|--------------------|-----------------|-----------------|
| Continuum | 656 | 120 | -420 | -4.2 |
| | 632 | 120 | -300 | -3.0 |
| | 620 | 120 | -180 | -1.8 |
| | 647 | 120 | -60 | -0.6 |
| | 647 | 120 | 60 | 0.6 |
| | 620 | 120 | 180 | 1.8 |
| | 632 | 120 | 300 | 3.0 |
| | 656 | 120 | 420 | 4.2 |
| | >685 | 60 | 510 | 5.1 |
| | 550 | 60 | 570 | 5.7 |
| (IR)GB Context | 450 | 60 | 630 | 6.3 |

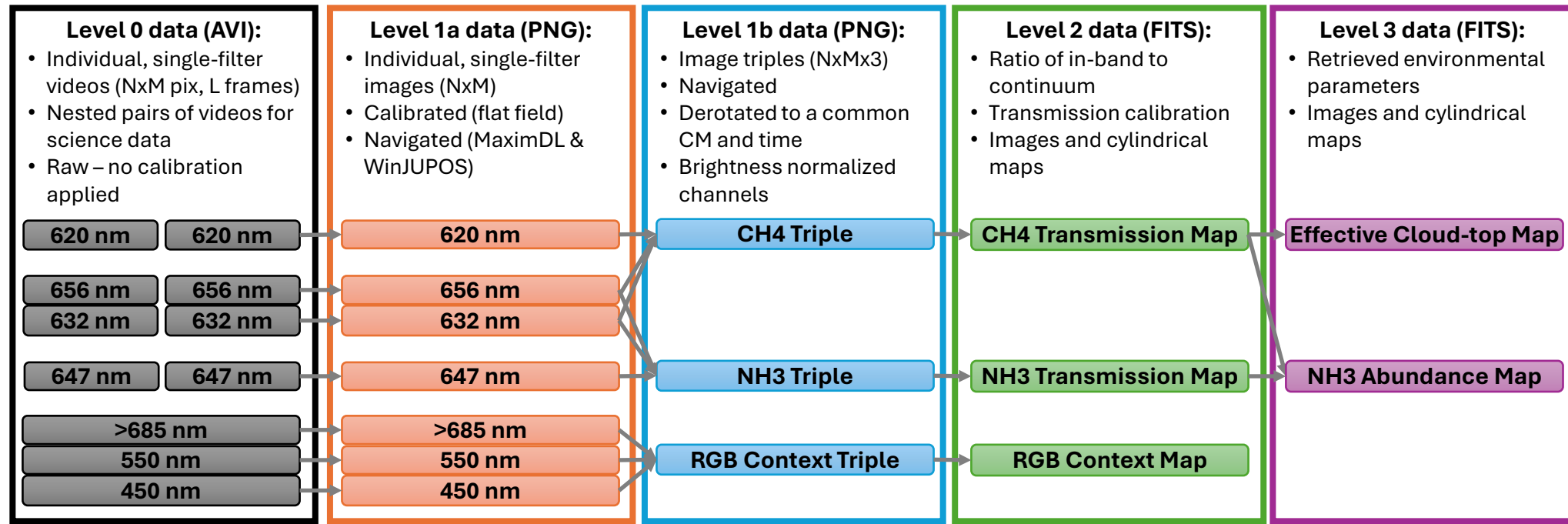
A single observation with a “nested” sequence of science observations to maximize signal to noise and minimize rotational offsets in Jupiter’s central .

Organization Concept



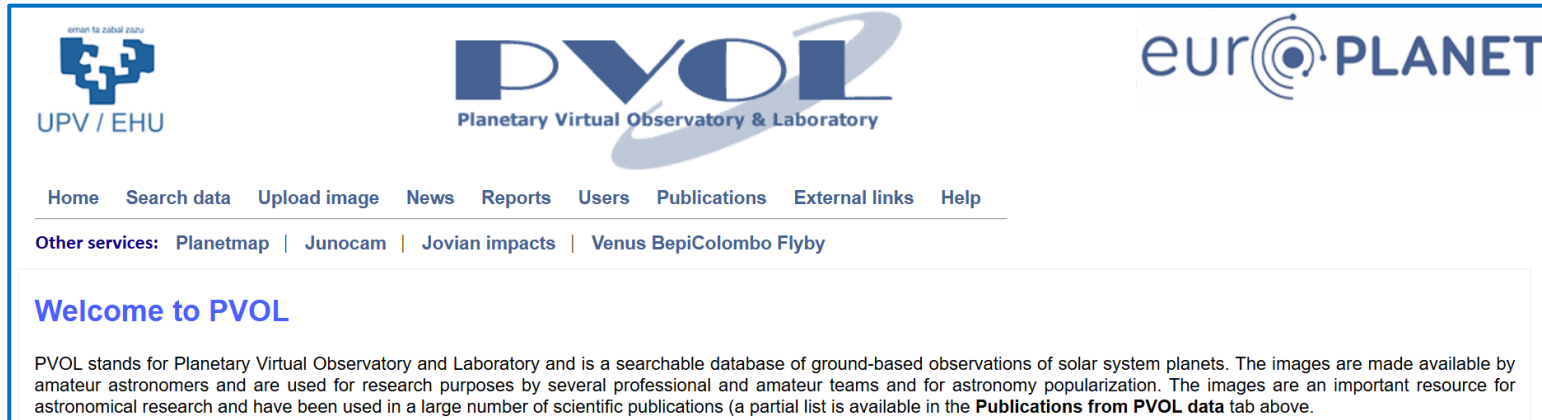
- Collections are sets of observations (obskeys) specified by a start and end date and a descriptive string, e.g., ‘20250116-20250116 NEDF Study’
- Tons of purposes with overlap in collections

Data Levels



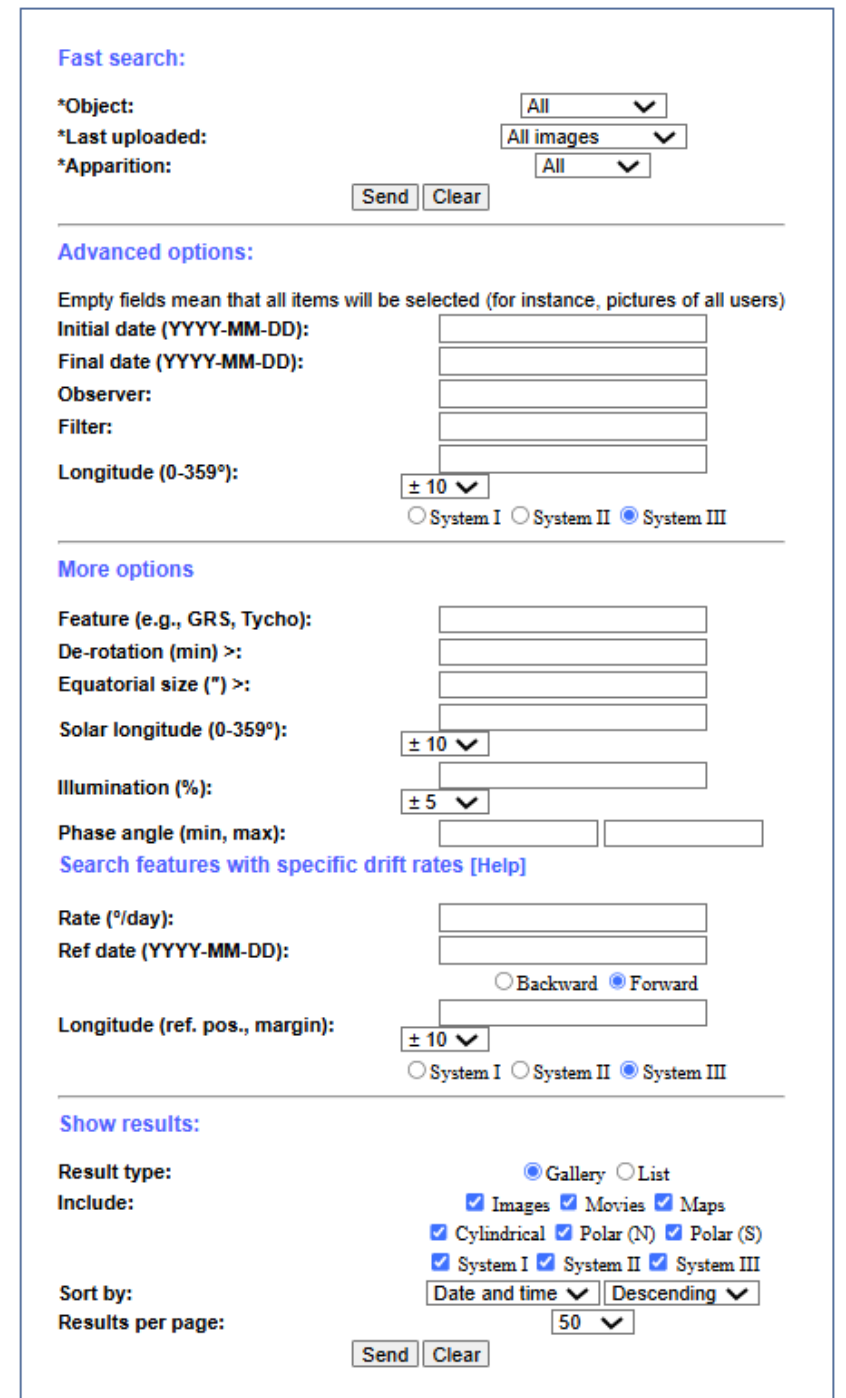
- Level 0 goes to deep storage after initial procession
- Level 1a rarely retrieved except for assessing data problems
- Level 1b accessed rarely, mainly for initial processing
- Level 2 data are used to understand basic physics of atmosphere
- Level 3 data are primary product used for research

Data Access Example 1



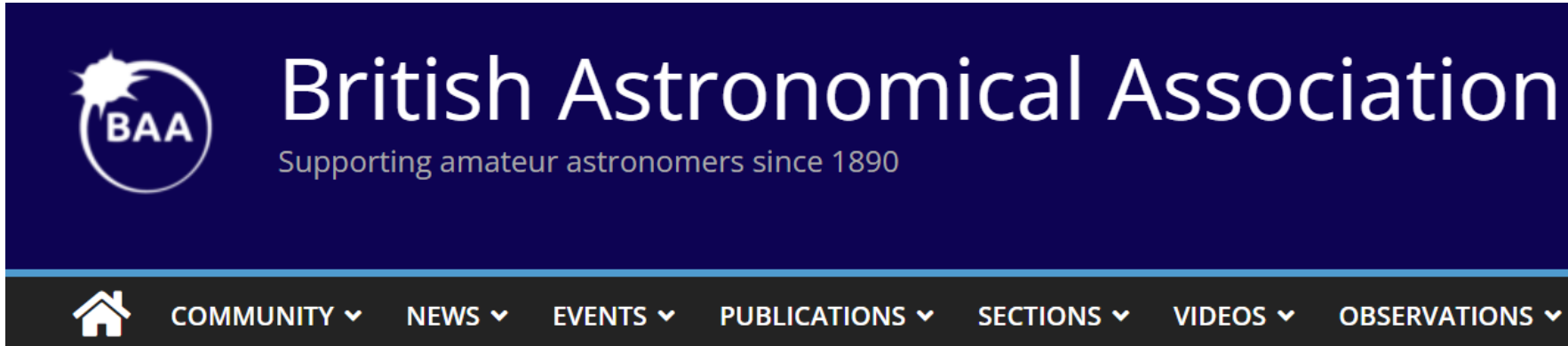
The screenshot shows the top section of the PVOL website. It includes three logos: UPV/EHU, PVOL (Planetary Virtual Observatory & Laboratory), and eur PLANET. Below the logos is a horizontal navigation menu with links: Home, Search data, Upload image, News, Reports, Users, Publications, External links, and Help. Underneath the menu is a section titled 'Other services:' with links to Planetmap, Junocam, Jovian impacts, and Venus BepiColombo Flyby. A 'Welcome to PVOL' section follows, containing a paragraph about the database's purpose and a link to 'Publications from PVOL data'.

- Example 1 public data site
<http://pvol2.ehu.eus/pvol2/>
- Data file lists, image displays, search capability
- Built on webservice



The screenshot displays the search interface of the PVOL website. It is organized into several sections: 'Fast search:' with dropdowns for *Object (All), *Last uploaded (All images), and *Apparition (All), plus Send and Clear buttons; 'Advanced options:' with fields for Initial date, Final date, Observer, Filter, and Longitude (0-359°), along with radio buttons for System I, System II, and System III; 'More options:' with fields for Feature (e.g., GRS, Tycho), De-rotation (min) >, Equatorial size (") >, Solar longitude (0-359°), Illumination (%), Phase angle (min, max), Rate (°/day), Ref date (YYYY-MM-DD), and Longitude (ref. pos., margin), plus radio buttons for Backward and Forward; 'Show results:' with radio buttons for Gallery and List; 'Result type:' with checkboxes for Images, Movies, and Maps; 'Include:' with checkboxes for Cylindrical, Polar (N), Polar (S), System I, System II, and System III; 'Sort by:' with a dropdown for Date and time and a direction dropdown for Descending; and 'Results per page:' with a dropdown for 50. Send and Clear buttons are at the bottom.

Data Access Example 2



- Example 2 public data site
<https://britastro.org/observations/?library=42>
- Data file lists, image displays, search capability
- Built on webservice

Select library
Solar section archive ▼

Sort order
Upload time ▼

Update

Filter by object

Object type
Any ▼

Object name

Update

► Filter by upload date

▼ Filter by observation date

- 2025 (848)
- 2024 (1855)
- 2023 (1341)
- 2022 (1339)
- 2021 (951)
- 2020 (662)
- 2019 (363)
- 2018 (383)
- 2017 (13)

Data Access Example 3

- Example 3 public data site
<https://alpo-j.sakura.ne.jp/Latest/Jupiter.htm>
- Simple index by date
- Each date links to a page with Jupiter images posted
- No search capability
- Some additional sections for reports and details

Jupiter Section of ALPO-Japan-Latest 木星の最新観測報告 Jupiter Observations

| | | |
|----------------------------|----|--|
| 2025/05/27 | by | K.Mashima, ^{it's} 05/27 |
| 2025/05/22 | by | K.Suzuki, S.Ito, K.Mashima |
| 2025/05/20 | by | K.Suzuki, S.Ito |
| 2025/05/18 | -- | Jupiter Repoer - May 2025 by K.Horikaw |
| 2025/05/17 | -- | Jupiter Apparition 2024 - 2025 by D.Peach |
| 2025/05/14 | by | K.Suzuki, K.Sasaki, S.Ito, T.Ishibashi, K.Horikawa |
| 2025/05/13 | by | K.Suzuki, S.Ito, K.Horikawa, K.Horii |
| 2025/05/08 | by | S.Ito, K.Horikawa, K.Sasaki |
| 2025/05/05 | by | K.Horikawa, E.Morales |
| 2025/05/04 | by | Christopher Go, S.Ito, T.Akutsu, K.Horikawa, K.Horii, E.Morales |
| 2025/05/03 | by | K.Suzuki, K.Horikawa |
| 2025/04/30 | by | K.Suzuki, M.Morita, S.Ito, K.Horikawa, K.Horii |
| 2025/04/29 | by | K.Suzuki, S.Ito, K.Mashima, Anthony. W, K.Horii, K.Horikawa, E.Morales |
| 2025/04/28 | by | H.Einaga, V.Gonzalez, E.Morales |
| 2025/04/27 | by | Christopher Go, T.Akutsu, K.Horikawa, M.Araujo |
| 2025/04/26 | by | K.Suzuki, K.Sasaki, S.Ito, K.Horii, M.Karakas, E.Morales |
| 2025/04/25 | by | Anthony. W, Kardasis, E.Morales |
| 2025/04/24 | by | Christopher Go, T.Akutsu, P.Abel, Kardasis, K.Horii, H.Einaga, E.Morales |
| 2025/04/23 | by | T.Akutsu, Anthony. W, Y.Takao, E.Morales |
| 2025/04/22 | by | T.Akutsu, E.Morales |