



# Report of the outgoing User Group

2016 - 2023

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from ESA:

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PSA User Group Meeting | ESAC | 15-16 February, 2023





Thank you!





# Meetings

- December 2016 ESAC
- July 2017 DLR Berlin
- January 2018 ESAC
- June 2018 Università di Bologna
- January 2019 telecon
- July 2019 ESAC
- January 2020 ESTEC
- *February 2023* ESAC

# General thoughts

- Group dynamic was good
  - Group interaction was pleasant and constructive
  - Mix of experience was good
- Meeting cadence
  - 2× per year (good, can perhaps be changed to 1× face-to-face and 1× virtual)
  - Meeting location mostly ESAC (with meetings at member institutions tbd)
- Logistics
  - Support by ESA (e.g., travel reimbursement) was excellent

# Missions

## The Planetary Science Archive



**cassini  
huygens**



**chandrayaan-1**



**exomars 2016**



**giotto**



**- mars express**



**rosetta**



**smart-1**



**venus express**



**bepicolombo**

## Future Archives



**exomars  
rsp**

# Mission-related topics

- Review of the ASPERA archives
  - MEX: Improvement is needed
  - VEX: Missing calibration and improvement is needed
  - For both projects something around 1.5FTE is estimated
  - [Jan Soucek](#) and [Elliot Sefton-Nash](#) to start drafting a letter of recommendation similarly to the one done for Radio Science
- Rosetta Legacy archive Status & post-operation plan
  - high level science products were prepared and delivered
  - data from the CIVA and ROMAP instrument on the Lander are still not available
- Radio Science
- Archiving of HRE Lunar data from Luna 25 (PiLOT-D) and Luna 26 (PROSPECT + PiLOT)

# Overview: Diverse topics

- Archiving of maps
- Geometry search capabilities
- Use cases
- Browse products
- Thumbnail images for ExoMars

# Tools

Options	PROs	CONs
Software provided by the instrument teams (e.g. PDS3: /EXTRAS directory)	Direct link between tool and product	Additional work from the teams (documentations...) Long term usage?
PSA provides 'generic' software for PDS3 and 4 data visualisation	Long-term preservation	Development and maintenance effort (incl. documentation) Might require to adapt the tool for each instrument (probably mainly for PDS3)
Plug tools (tomcat, Aladin...) that would allow PDS3 and 4 products visualisation	Limited effort from both instrument teams and PS	Not always generic enough Not possible to update the tool to adapt to new products

- Recommendation is to have the IPDA to push PDS for tools urgently
- An Expro contract on creating this software could be possible at the PSA side, but will need some clarification.



# HK data

- HK data are - in general - very useful, but more so for some instruments than others
- HK data may become interesting only at a later stage, and may enable new science independently of instruments (e.g., aerobraking)
- HK data should be considered by PSA
- It is important to identify the needed parameters, not all the ESOCs database (MUST) database could be saved
- ExoMars rover mission will be particularly important
- *ESA trying to get funding to archive Chandrayaan-1 data*

# Higher Level Data Archiving

- Higher Level Data Archiving is part of PSA's tasks
- The PSA-UG fully supports these activities
  - They are very useful for the science community
  - They increase the usage of mission data (e.g., MEX)
  - The archiving may/will ensure long-term availability
- PSA UG can help with the validation and reviewing of data sets
- PSA UG can advise what can/should be archived

# PSA Guest Storage Facility (GSF)

- 11 data sets
  - Good customer experience
- MEX Legacy Archive
  - Some data sets in archive
  - Data formatting is not trivial
  - Lesson learned: Adequate funding needs to be secured before committing to such a huge task
- Status of UPWARDS?
- PLANMAP data???

# Archival Research Visitor Programme

- Managed by ESA Data Science Centre (Guido De Marchi)

See presentation later today

- Discussions on pros and cons of the program concept
  - Mixed opinions in the PSA-UG
- UG support of proposal evaluations



# Outreach

- Maintain awareness of science community (PSA-UG as a tool)
  - Present PSA and PSA-UG at conferences (e.g., EPSC)
  - Present PSA and PSA-UG at workshops (e.g., ESA-China workshop in May)
  - PSA Questionnaire
- Improve communication with PI teams
  - Even before the active mission and archiving phase
- Make use of PSA-UG (e.g., UG provide input to SSEWG)
- Exchange with other ESA archives (astronomy, Heliophysics)
- Use of social media should be considered: Status?