

# PDS ATMOSPHERES NODE NEWSLETTER



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Welcome to the Spring 2022 issue of the NASA Planetary Data System (PDS) Planetary Atmospheres Node (ATM) Archiving Newsletter. These newsletters are intended to serve as your definitive source for all archiving news related to planetary atmospheres, and to keep you informed of PDS ATM activities. We want to strike the right balance between providing open and transparent communications to our user community without overdoing it. *If there are topics that you would like to see addressed in future newsletters, please let us know!* As always, for data access, usability, and proposal assistance, please visit our website: <https://pds-atmospheres.nmsu.edu/>.

## **LATEST NEWS FROM THE PDS**

NASA's Science Mission Directorate (SMD) announced the release of the second annual Planetary Data System (PDS) Customer Satisfaction Survey (CSS). Please assist NASA in defining the next generation of the PDS by participating in the [2022 Planetary Data System Customer Satisfaction Survey](#). Survey results will be used to identify and prioritize services, ensuring that the needs of the planetary science community are met. The anonymous online survey, developed for NASA by its contractor CFI Group, takes a few minutes and optional fields are provided to register your concerns and comments. Please contact the PDS at [pds-operator@jpl.nasa.gov](mailto:pds-operator@jpl.nasa.gov) with questions on the survey. To learn more about how the PDS is responding to community feedback such as the 2020 PDS survey and the findings of the Planetary Data Ecosystem Internal Review Board, see our [community announcements page](#). **The deadline for completing the survey is April 8, 2022.** Thanks in advance for your participation!

## **PDS ATM @ 7<sup>th</sup> International Planetary Dunes Workshop**

The PDS ATM will participate the [7<sup>th</sup> International Planetary Dunes Workshop](#) at Adams State University/Great Sand Dunes National Park in Alamosa, Colorado, May 17-20, 2022. We will be present to answer archiving questions along with our poster presentation on node activities and updates. Abstracts and program to come out by April 8, 2022.

## **ATMOSPHERIC MODELING ANNEX**

ATM will soon be kicking off a new initiative to provide a PDS-equivalent archive of atmospheric modeling output through a new Atmospheric Modeling Annex. Because of non-supported file formats typically used in modeling, many data output files are not appropriate for full PDS archiving. However, we recognize that atmospheric modeling is a vital tool for analysis and processing of mission observational data. ATM is beginning the process of developing a cloud-based repository for planetary atmospheric modeling outputs and simulation results. Updates will be coming soon!

## **POLICY UPDATES/REMINDERS**

Note for new data providers/proposers: Requests for letters of support should be submitted to the appropriate nodes no later than a week before the submission deadline as required by PDS policy. (Effective October 2019). See the adopted policy text for more information: [Letter of Support Policy Document](#). For programs that have no posted

deadline, be cognizant of your timing and please allow ample time (no less than a week) for us to write your letter of support.

## **NEW RESOURCES FOR DATA PROVIDERS**

The PDS recently launched some new web pages designed to provide a comprehensive set of resources for R & A proposers who are considering archiving their data in the PDS: <https://pds.nasa.gov/home/proposers/>. These pages cover the how and why of archiving in the PDS, from requesting letters of support for proposals to the entire archiving process. Proposers are encouraged to consult these pages as a first stop for seeking information about data archiving; ATM personnel are also available and eager to answer your archiving questions! Contact us at [pds-atm@nmsu.edu](mailto:pds-atm@nmsu.edu).

## **NEW MISSION RELEASES**

*ATM is involved in archiving data from five active missions. This involves working closely with the instrument teams and mission archiving teams to ensure that the data are delivered, validated, and released to the public on a predetermined schedule available from: [Release Schedule](#). Here, we provide a status report of recent data releases from these missions at ATM:*

### **MARS**



**InSight** 1<sup>st</sup> through 12<sup>th</sup> data release will be available (04/01/2022) and certified including atmospheric data from the Temperature and Wind Sensors (TWINS) and Pressure Sensors (PS). [InSight Data](#)

Entry, Descent, and Landing (EDL) data are also now available. [InSight EDL](#)



**Mars Atmospheres and Volatile Evolution (MAVEN)** 1<sup>st</sup> through 28<sup>th</sup> data release is available for Accelerometer (ACC), Neutral Gas and Ion Mass Spectrometer (NGIMS), and Imaging Ultraviolet Spectrograph (IUVS). [MAVEN Data](#)



**Mars Reconnaissance Orbiter (MRO)** 1<sup>st</sup> through 60<sup>th</sup> data release is available including data from the Mars Climate Sounder (MCS). [MRO-MCS Data](#)



**Mars Science Laboratory (MSL) Curiosity** 1<sup>st</sup> through 29<sup>th</sup> data release is now available for the Rover Environmental Monitoring Station (REMS). [MSL-REMS Data](#)



**Mars 2020 Rover (M2020) Perseverance** 1<sup>st</sup> – 3<sup>rd</sup> data release will be available (03/22/2022) for Mars OXYgen In-situ resource utilization Experiment (MOXIE) & Mars Environmental Dynamics Analyzer (MEDA). [Mars 2020 Data](#)

## JUPITER



**Juno** PDS3/PDS4 data will be available (03/24/2022) for Microwave Radiometer (MWR) including the recalibrated 2.0 cruise data, through perijove 36 Ultraviolet Imager/Spectrograph (UVS), through perijove 36 Jovian Infrared Auroral Mapper (JIRAM), through perijove 36 Gravity Science Experiment (GRAV), through perijove 36 data.  
[Juno Data](#)

## NEW DERIVED DATA RELEASES (by program)

*In addition to archiving mission data, ATM is also involved in hosting and archiving derived data, which are typically provided by individual data providers. These data are a valuable complement to the ATM mission data because they represent the results of investigations involving the analysis of mission data or the acquisition of field, laboratory, or ground-based data that support NASA's planetary missions. Below is a listing of derived data (by program) that have recently completed the archiving process and are now available online at ATM (since last issue – for past issues see: [PAST NEWSLETTERS](#)).*

### UNAFFILIATED PROJECTS

**Terrestrial Dust Devil Field Data from Eldorado Playa, NV (Jackson & Lorenz 2015).** This meteorological dataset consists of pressure and temperature measures as a function of time in the remote region of Eldorado Playa just south of Boulder City NV (35°52.211'N 114°55.975'W) over the course of about 2 years. 15 loggers were deployed at 6 locations in the playa (See above) and data was recorded as ASCII tables on 2 GB microSD flash memory cards. Jackson & Lorenz (2015), A multiyear dust devil vortex survey using an automated search of pressure time series, *JGR*, <https://doi.org/10.1002/2014JE004712>. PDS Data: [Terrestrial Dust Devil Data](#)  
*Citation:* Jackson, B. & Lorenz, R. (2021) A multiyear dust devil vortex survey using an automated search of pressure time series data, NASA Planetary Data System, DOI: 10.17189/1h1n-mw72.

## PDS4 TOOL DEVELOPMENT NEWS



The Atmospheres Node is in the progress of developing a PDS4 tool for helping users plan and design labels for simple bundles of data that they wish to archive in the PDS. The Educational Labeling System at Atmospheres (ELSA) is well on its way to being a functional guide for putting archive bundles together. ELSA aims to allow easy access to tailoring PDS4-compliant label templates for your needs. ELSA will allow persistent editing through a free account and step-by-step tutoring for building your bundles. Stay tuned to this section for future updates.

ELSA was presented as a poster at the 5<sup>th</sup> Planetary Data Workshop/2<sup>nd</sup> Planetary Science Informatics & Data Analytics Conference (June 28 – July 2, 2021) as abstract #7082.

Abstract: <https://www.hou.usra.edu/meetings/planetdata2021/pdf/7082.pdf>

E-Poster: <https://www.hou.usra.edu/meetings/planetdata2021/eposter/7082.pdf>

We are closing in on opening ELSA to external beta-testing, hopefully in the Autumn-Winter 2021 timeframe. For more information or to volunteer as a beta-tester for the online tool, contact: [elsa@atmos.nmsu.edu](mailto:elsa@atmos.nmsu.edu).

## **ATM Advisory Group**

*In January 2022 the Atmospheres Node had its annual meeting with its Advisory Group, which is designed to provide input and feedback to us on issues of importance to our user base. The AG membership was designed to reflect our current user community, and we anticipate that the members will serve as a sounding board for new ideas about ways we can better serve the planetary atmospheres community, as well as a conduit for ideas and feedback from our user community. Please join us in thanking the current AG members for their service:*

Natasha Batalha (NASA/ARC)  
Don Banfield (Cornell)  
Ashley Davies (JPL)  
Melinda Kahre (NASA/ARC)  
Ralph Lorenz (JHU/APL)

Kevin McGouldrick (CU/LASP)  
Conor Nixon (NASA/GSFC)  
Paul Withers (Boston University)  
Mike Wong (UC Berkeley)

## **Contact Us**

We want to hear from you! We value your feedback and are committed to improving the archiving process as well as the usability and discoverability of data at ATM. If you have a derived data set that fits our archiving mission, please contact us to start a dialog. Also please contact us at: [pds-atm@nmsu.edu](mailto:pds-atm@nmsu.edu) if you have any questions or concerns. There is also a feedback widget on our web site that you can use if you are having trouble finding something on our web site.