



**ONLINE
WORKSHOPS**

Preparing for NASA Perseverance's landing on Mars

Online Workshop Summary of Resources
1-26-2021

Online Workshop Presenters

- [Jim Bell](#), Professor, Arizona State University, School of Earth and Space Exploration
- [Jeannie Colton](#), Arizona State University, School for the Future of Innovation in Society

Recording of the Online Workshop on Vimeo

- <https://vimeo.com/nisenet/marslandingworkshop>

Online Workshop Links and Resources

Workshop Resources

- NISE Network compilation of Mars Perseverance Rover educational resources: <https://www.nisenet.org/mars>
- NISE Network's Explore Mars! A Rover Game: <http://www.nisenet.org/catalog/explore-mars-rover-game>
- NASA's Mars 2020 Mission Website: <https://mars.nasa.gov/mars2020/>
- Perseverance Overview Video: <https://mars.nasa.gov/resources/25147/mission-overview-nasas-perseverance-mars-rover/?site=msl>
- Mars Sample Caching Video: <https://mars.nasa.gov/resources/25005/mars-2020-perseverance-rover-sample-caching-system/>
- Getting Perseverance To The Launch Pad video: <https://mars.nasa.gov/resources/25134/getting-perseverance-to-the-launch-pad/>

Q/A with Jim Bell

Due to time constraints at the end of the workshop Jim was not able to answer the following questions. His answers to these questions are below.

- 1. Will the source of methane venting on Mars be investigated?**
 - a. Not really. There is no specific agreed-upon source region identified for methane venting, and this entire topic is quite controversial in the Mars science community.
- 2. Is there a mapped journey for Perseverance?**
 - a. Not really. We'll want to climb up onto the delta, and maybe eventually drive up that narrow canyon on the west and up into the highlands from which the

sediments emerged and flowed... But we'll have to figure out the specific path/plan after we land and see what the place is really like!

3. What do you think will be the biggest obstacle for Perseverance to overcome?

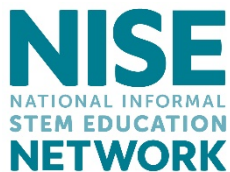
- a. So many. Super cold temperatures and swings from -100C at night to +5C in the daytime. Dust storms blasting sand and dust onto the lenses and other systems. Sharp rocks. A super-slow (by Earth standards) Internet connection to send and receive information and instructions from home. People sending those instructions who sometimes make mistakes, because we're all human! So many!

4. When do the first images from the surface get transmitted to Earth after landing?

- a. If all goes well, we'll see the first pictures back just a few minutes after landing. Then, over the days and weeks that follow, we'll get a steady stream of more and more!

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