Intro for episode page: Artificial intelligence (AI) is helping to make the science work at EROS better and more efficient, as we continue to develop valuable data products.

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**Eyes on Earth Episode 132 – Moving Forward with AI at EROS**

**Summary**: Eyes on Earth tackles artificial intelligence (AI) in a 2-part episode. AI is quickly becoming a necessary part of geospatial work at EROS, helping us efficiently do science to better manage our world. In Part 1, we talked about AI’s current and upcoming impact on our work at EROS and clarified some of the AI jargon. The successful use of AI to make NLCD an annual product was a key example.

In Part 2, we discuss another potential application of AI—keeping Landsat satellites safe and healthy in orbit. Additionally, guests comment on how readily staff are adapting to using this rapidly evolving technology. They discuss the biggest benefits and challenges we face in using AI. Among the benefits are making EROS data products more accurate and reliable and getting them to the public in a more timely fashion.

**Guests**:

Pete Doucette, USGS EROS

Terry Sohl, USGS EROS

Neal Pastick, USGS EROS

Rylie Fleckenstein, contractor for USGS EROS

**Host**: Tom Adamson (contractor for USGS EROS)

**Producer**: Tom Adamson (contractor for USGS EROS)

**Release date**: Thursday, March 20, 2025

**More about AI**:

* [USGS Center of Excellence for Geospatial Information Science—Artificial Intelligence (AI)](https://www.usgs.gov/centers/cegis/science/artificial-intelligence-ai)
* [Ronneberger et al. paper on Convolutional Networks](https://doi.org/10.48550/arXiv.1505.04597)
* [USGS Seeks Input on AI/ML Methods for Improving Landsat Flight Operations](https://www.usgs.gov/landsat-missions/news/usgs-seeks-input-aiml-methods-improving-landsat-flight-operations)

**Related Episodes:**

* [Episode 131 – Using AI in Geospatial Work](https://www.usgs.gov/centers/eros/science/eyes-earth-episode-131-using-ai-geospatial-work)
* [Episode 108 – Landsat 8’s 100th Drag Make-Up Maneuver](https://www.usgs.gov/centers/eros/science/eyes-earth-episode-108-landsat-8s-100th-drag-make-maneuver)
* [Episode 113 – EROS Science Leader’s Vision](https://www.usgs.gov/centers/eros/science/eyes-earth-episode-113-eros-science-leaders-vision)
* [Episode 101 – EROS 50th: Director Pete Doucette Looks Ahead](https://www.usgs.gov/centers/eros/science/eyes-earth-episode-101-eros-50th-director-pete-doucette-looks-ahead)

**Keywords**: Earth Resources Observation and Science (EROS) Center, Eyes on Earth, remote sensing, Landsat, artificial intelligence, AI, machine learning, deep learning, neural networks, transformers, foundation models, NLCD

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<https://cms.usgs.gov/media/images/eoe-eros-tours-homepage>

**Homepage descriptor**: This episode of our remote sensing podcast covers what artificial intelligence (AI) is and discusses its benefits and challenges in its use at EROS.

**Topics this could go in:** Data, EROS, Remote Sensing(see <https://www.usgs.gov/centers/eros/eyes-earth-topics> for list of topics)

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