As the space economy takes off, world leaders face a challenge that will require strong cooperation in the so-called orbital commons: orbital debris. In a new primer, Technology and Innovation Policy Analyst Joshua Levine discusses how orbital debris threatens the viability of future missions into space, the current regulatory environment governing this problem, and recommendations for legislators on ways to address it going forward.

Key points:

- Orbital debris – man-made objects in the Earth’s orbit that no longer serve a useful function – is becoming a more prevalent hazard as countries and commercial firms push to expand their space operations.
- The adoption of domestic and international guidelines to mitigate this hazard has reduced the average amount of orbital debris created per mission, but these measures are largely voluntary, meaning generators of debris face virtually no consequences for their behavior.
- Congress should work with National Aeronautics and Space Administration and commercial partners to promote transparency and information sharing about the debris their activities create; continue to engage in international efforts to monitor and limit debris creation; experiment with market mechanisms to create incentives for private actors to abide by debris-mitigation guidelines; and embrace new technologies and innovations to remediate debris moving forward.

Read the analysis