

Hypersonic ReEntry Deployable Glider Experiment (HEDGE)
(Technical Report)

Fast Track: The Competition for the
Future of High-Speed Rail in the United States
(Sociotechnical Research Paper)

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by

Timothee Kambouris

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State-of-the-art transport modes are expensive and controversial; most also require political support. Development of such systems therefore requires efforts to enlist public confidence by demonstrating such systems' benefits.

How can HEDGE use software and avionics systems to develop fast and efficient atmospheric data transmission systems? The Hypersonic ReEntry Deployable Glider Experiment (HEDGE), a pivotal CubeSat mission, aims to gather crucial data during hypersonic reentry into Earth's atmosphere. With potential funding from the US Department of Defense, HEDGE is a crucial step in the global race to develop hypersonic weapons. It promises to test the feasibility of low-budget hypersonic experiments and is expected to yield critical pressure and temperature data. The mission's success hinges on integrating advanced avionics and robust software for effective data collection and transmission, marking a significant milestone in hypersonics research

In the United States since 2008, how have interest groups competed to promote or prevent high-speed rail proposals? In the United States, high-speed rail (HSR) is a promising but controversial transport mode that remains undeveloped. Its future hinges on the struggle among interest groups. HSR proponents cite its economic and environmental benefits, while opponents cite financial and social costs. Interest groups compete through lobbying to publicity campaigns and social media. For strategic purposes, some groups conceal their actual agendas, instead appealing to resonant ideas and values.