

Novel Technology

- Alternative fuels – decarbonization in rail
- Passenger and transit rail
- Joint Policy (Shared Use) projects
- High-speed rail
- Hyperloop
- Maglev

Technology and Automation

- Machine learning (AI)
- Machine vision
- Big data analytics
- Drones
- Fiber optics sensing
- R&D support for new tech
- Position, Navigation and Timing (PNT) communications
- Human-machine interface (ergonomics)
- Verification and validation

Automated Track Inspection Program

ATIP Operations	2021 (Thru 10/31)
Miles Surveyed	119,474
Total Exceptions	5,955
Safety Critical Exc.	1,530

Washington, DC Union Station (Authority Having Jurisdiction)

- Concourse modernization
- Subbasement replacement
- Claytor Concourse
- Amtrak track 22
- Fire and life safety