NASA Dryden Western Aeronautical Test Range (WATR)

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Dryden Flight Research Center

The NASA Dryden WATR capabilities support aerospace flight research and technology integration, space exploration concepts, airborne remote sensing and science missions, and operations of the Space Shuttle and International Space Station.

PURPOSE:

Provide range engineering and technical expertise and resources to support aerospace research, science, and low-earth orbiting missions.

RESOURCES:

- Telemetry Tracking Systems
- Space Positioning Systems
- Audio Communication Systems
- Video Systems
- Mission Control Centers
- Mobile Systems

SERVICES:

- Range Engineering and Operations staff
- Project requirement definition and analysis
- Project mission coordination, scheduling, and frequency management
- Algorithm development and implementation
- Display definition and development
- Mission control and ground systems operation
- Range Safety data
- Post-flight data processing and archival

CONTACT:

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Telemetry Tracking Systems

- Provide down-linked C-, L-, or S-band telemetry and air-to-ground video
- Provide L- or S-band command up-link
- Provide video from pedestal cameras
- Provide full on-orbit capability for Low Earth Orbiting (LEO) vehicles

Space Positioning Systems

- High accuracy RIR-716 C-band radars with pedestal video
- Differential Global Positioning System ground station
- Federal Aviation Administration surveillance radar data

Audio Communication Systems

- UHF, VHF, and HF radios
- UHF Flight Termination System (FTS)
- Extensive range intercommunication System
- Special equipment for Low Earth Orbiting vehicles

To Fly What Others Only Imagine

www.nasa.gov/centers/dryden

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Video Systems

- Long Range Optical (LRO) System (High-Definition)
- Forward Looking Infra-Red (FLIR)
- Ramp and runway cameras
- Mobile video van with microwave

Mission Control Centers

- Control and monitor real-time operations
- Provide real-time and post-mission research data analysis
- Provide communication to flight and ground crews
- Provide range safety data and FTS
- Provide down-linked, LRO, and pedestal video

Mobile Systems

- Control and monitor real-time operations
- Receive L- or S-band signals
- Provide L-band command up-link
- Provide UHF/VHF radios
- Provide down-linked and pedestal video

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