



ERDA's STATE-OF-THE-ART LABORATORY FOR EVALUATION OF HIGH TEMPERATURE LOW SAG (HTLS) CONDUCTOR

List of Conductors

- Heat Resistant Aluminum Alloy with Invar Core (ZTACTR)
- Thermal Alloy Conductor Steel Reinforced (TACSR)
- Aluminum Conductor Steel Supported (ACSS)
- Aluminum Conductor Fiber Reinforced (ACFR)
- Aluminum Conductor Composite Core (ACCC)
- Gap Type Thermal Alloy Conductor Steel Reinforced (GTACSR)

TESTING CAPABILITIES

On Complete Conductor

- DC resistance test on stranded conductor
- UTS test on stranded conductor
- Stress-strain test on stranded conductor and core at room temperature
- Stress-strain test on stranded conductor and core at elevated temperature
- High temperature endurance & creep test on stranded conductor
- Conductor thermal expansion test
- Sheave test
- Axial impact test
- Radial crush test
- Torsional ductility test
- Aeolian Vibration test
- Temperature cycle test

On Conductor Strand/Core

- Bending test
- Coefficient of linear expansion on core
- Strand brittle fracture test
- Torsion and elongation tests on core strands/composite core
- Glass transition temperature test
- Flexural strength test
- Salt spray test