

**EMI/EMC Testing:**

- Audio Frequency Conducted Susceptibility
- Contact Bounce
- Cross Talk
- Dielectric Breakdown
- Electrical Fast Transient
- Electromagnetic Compatibility (EMC)
- Electromagnetic Interference (EMI)
- Electromagnetic Pulse (EMP)
- Electrostatic Discharge (ESD)
- Emission of Radio Frequency Energy
- Frequency Response
- Induced Signal Susceptibility
- Insulation/Insertion/Return Loss
- Leakage Current
- Lightning Induced Transient Susceptibility
- Magnetic Effect
- Positive Train Control (PTC)
- Power Factor
- Power Input
- Power Quality
- Radio Frequency Susceptibility (Radiated & Conducted)
- Shielding Effectiveness
- Shipboard
- Surge Immunity
- TEMPEST
- Voltage Dips, Interruptions, Variations, & Transients
- Voltage Spike

**Arms, Armaments, Armor & Ammo Testing:**

- 100-Meter Indoor Firing Range
- Accelerated Life Testing
- Aircraft Interface Systems
- Ammunition Testing
- Ballistics & Ballistic Resistance
- Body Armor Testing
- Bomb Rack Qualification
- Bomb Rack Cartridge Testing
- Failure & Materials Analysis
- Mechanical & Electrical Armaments
- Missile Qualification
- Non-Destructive Testing
- Proof Testing
- Weapons Development Testing

**Test Stands & Test Systems:**

- Acquisition Systems
- Automated Calibration Test Systems
- Auto/Semi-Auto Manual Systems
- Design, Engineering, Fabrication
- Electrical Test Systems
- Electromechanical Data Systems
- Fuel Test Stands
- Hydraulic/Pneumatic Systems
- Mechanical Test Systems
- Rotary/Non-Rotary Component
- Servo Components
- Special Instrumentation Developed

**Environmental Testing:**

- Combined Environment; Temperature, Altitude, Humidity
- Dust
- Explosive Atmosphere
- Fluid Susceptibility/Contamination
- Fire/Flammability
- Fungus
- Humidity
- Ice/Freezing Rain
- Immersion
- Low Pressure (Altitude)
- Overpressure
- Rain
- Rapid & Explosive Decompression
- Salt Spray/Fog
- Sand
- Solar Radiation/Sunshine/UV
- Temperature
- Temperature/Humidity
- Thermal Vacuum
- Waterproofness
- Wind

**Optical Testing:**

- Diffuse Transmittance
- Distortion & Deviation Analysis
- Haze/Illuminance
- Laser Power
- Luminance & Reflectance
- Luminous Intensity & Transmittance
- Prismatic Deviation
- Neodymium Laser
- Spectrophometric Analysis
- Spherical & Cylindrical Power

**Other Capabilities:**

- Life Cycle Testing
  - ◊ Accelerated Life Testing
  - ◊ Environmental Exposure
- Remote Test Witnessing
- Precision Machining
  - ◊ Part/Fixture Design & Fabrication
  - ◊ Rapid Prototype
- Rail/Transit Engineering & Testing Services
  - ◊ EMI/EMC Site Surveys
  - ◊ Full Vehicle Qualification/Compliance Testing
  - ◊ Vibration/Shock/Acoustic Surveys
  - ◊ PTC/ATC/CBTC/SSI System & Qualification Testing
  - ◊ Track Circuit Testing
  - ◊ Wayside Systems Qualification

**Dynamics & Vibration:**

- Acceleration
- Acoustic Noise
- Classic, Pyrotechnic, Hammer Shock
- Combined Environment; Vibration & Temperature
- Cryo Vibration
- Inclination
- Low Frequency/Seismic
- Transport & Packaging Shock/Vibration
- Vibration - Random, Sine, etc.

**Engineering:**

- Design
  - ◊ CAD/CAE
  - ◊ Geometric Dimensioning & Tolerancing (GD&T)
  - ◊ Kinematics Studies
  - ◊ Test Plan/Procedure Development
  - ◊ Vendor Qualification
- Inspection
  - ◊ CMM
  - ◊ Dimensional
  - ◊ First Article Tests (FAT)
  - ◊ Non-destructive Inspection (NDI)
    - ◊ Magnetic Particle Inspection
    - ◊ Liquid Penetrant Testing
  - ◊ Production Lot Tests (PLT)
  - ◊ Quality Audits & Site Surveys

**Metallurgy & Materials**

- ◊ Case Depth
- ◊ Chemical Analysis
- ◊ Corrosion Testing/Analysis
- ◊ Failure Analysis
- ◊ Fractography
- ◊ Hardness/Microindentation Hardness
- ◊ Material Characterization
- ◊ Microstructural Analysis
- ◊ Plating, Coating & Surface Evaluations
- ◊ SEM-EDS Analysis
- ◊ Weld/Braze/Solder Analysis

**Reverse & Re-engineering**

- ◊ Product Improvement & Validation

**Structural & Stress Analysis**

- ◊ Damage Tolerance Analysis
- ◊ Failure & Fatigue Prediction
- ◊ FEA
- ◊ Vibration Analysis for Predictive Maintenance

**Structural/Safety/Survival:**

- Constant Amplitude & Spectrum
- Hydraulic Pressure
- Life Support Equipment Tests
- Load Calibration
- Pneumatic Equipment Tests
  - ◊ Ballistic Anti-fragmentation
  - ◊ Burst Pressure, Hydrostatic
  - ◊ Coatings/Corrosion Prevent
  - ◊ Ozone Depleting Chemical (ODC) Replacements
  - ◊ Proof Pressure, Gaseous
  - ◊ Reliability/Life/Fatigue
- Pneumatic Leak Detection
- Static & Fatigue
- Strain Gage
- Test Fixture Design & Fabrication
- Aircraft/Shipboard Components Test/Inspect/Qualify Aircraft Catapult & Arresting Gear
- Windblast



# tech pubs

Dayton T. Brown, Inc.'s technical writers, illustrators, engineers, programmers, analysts, logisticians, and data specialists provide world-class technical documentation, information programs, and cognitive data solutions.

We are experts in mechanical, electrical, and hydraulic equipment and can perform systems analysis, information development, writing, data conversion, and graphics preparation for a variety of applications.

## Technical Publications:

- Authoring
- File/Data Conversion
- Graphics Conversions
- IETM/IETP Development
- MBE - Model Based Enterprise
- Standards & Specifications
- Technical Illustration
- XML & SGML Compliance
- 3D Interactive Models

## Technical Publications Deliverables:

- Aircraft Flight Manuals (AFMs)
- Aircraft Maintenance Manuals (AMMs)
- Component Maintenance Manuals (CMMs)
- Fault Isolation Manuals (FIMs)
- Illustrated Parts Catalogs (IPCs), Illustrated Parts Lists (IPLs), Illustrated Parts Data (IPD), Repair Parts & Special Tools List (RPSTL)
- Installation Instructions
- Instructions for Continued Airworthiness (ICAs)
- Maintenance Manuals
- Maintenance Planning Document (MPD)
- Operator Manuals & Safety Procedures, Service Bulletins (SBs), Technical Directives (TDs)
- Overhaul & Repair Instructions
- Parts & Provisioning Documents
- Software/Hardware Manuals
- System Schematic Diagram Manual (SSMs)
- Supplement Completion Manuals
- Test & Troubleshooting Manuals
- Training Manuals
- Wiring Diagram Manuals (WDMs)

## Logistics/Product Support Services:

- Consulting & Training
  - ◆ Logistics & Technical Publications Training
  - ◆ Logistics Requirements Review/Analysis
  - ◆ Migration from Legacy Formats into New Standards
- Logistics Management/LMI
- Maintenance Planning
- Parts & Provisioning
- Parts Management
- Program Management
- Reliability & Maintainability
- Standards & Specifications Support

## Logistics Deliverables:

- GEIA-STD-0007
- Initial Spares & Repair Parts (ISRP)
- Level of Repair Analysis (LORA)
- Maintenance Planning, Task Inventory, Plan Report, & Allocation Chart
- Product Supportability Analysis Plan

## DTB TECHNICAL SERVICES DIVISION

## S1000D CONNECT

### S1000D Services:

- Business Rules Consulting
- Conversion into S1000D
- CSDB Standup & Installation
- Customer Publishing Requirements & Analysis
- Data Module Writing
- Data Module Requirements List (DMRL)
- Illustration Creation & Hotspotting
- Training

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### Mission Systems Division

- Aircraft Modifications
  - ◆ Antenna Development
  - ◆ Development, Testing, & Integration of Avionic Upgrades
  - ◆ System Modifications
- Logistics Material Support
- Mobile Operations Platform Design, Build, Integration & Test
- SCIF Design, Build, Integration, & Test



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