

RDSI

Research and Development
Solutions, Inc
www.rdsi.com

"Fleet Focused...Value Driven"

Who We Are

- ▶ Established in January 1989
- ▶ Veteran-Owned Small Business (VOSB)
- ▶ Corporate Headquarters in McLean, VA
- ▶ Branch Offices
 - Middletown, RI
 - North Stonington, CT
 - Mystic, CT
 - Bellingham, WA
 - San Diego, CA

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Expertise and Goals

- ▶ Fleet recognized products and technical expertise
- ▶ Experienced and technically qualified personnel
- ▶ State-of-the-art tools
- ▶ Process driven solutions
- ▶ Cost effective services and products
- ▶ Technically sound engineering practices
- ▶ Strategic handling of new technology tailored to meet our customers' needs
- ▶ Sound business practices and professional ethics

Become *your Company of Choice*

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Our Client Base

- ▶ U.S. Navy Commands and Activities
 - Naval Sea Systems Command (NAVSEASYS COM)
 - Space and Warfare Systems Command (SPAWAR SYSCOM)
 - SPAWAR Systems Center Pacific (SSC PAC)
 - Naval Undersea Warfare Center, Division Newport
 - Surface Warfare Officers School (SWOS), Newport
 - Submarine Learning Center (SLC)
 - Naval Submarine School (NAVSUBSCOL)
 - Office of Naval Intelligence (ONI)
 - Naval Surface Warfare Centers (NSWCs)
 - Dahlgren, Dam Neck, Port Hueneme, Carderock, and Philadelphia

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Our Client Base

- ▶ Boeing/Argon
- ▶ Lockheed Martin Corporation
- ▶ Electronic Warfare Associates
- ▶ Coastal Systems Design
- ▶ Science Applications International Corporation
- ▶ General Dynamics Electric Boat
- ▶ General Services Administration
- ▶ National Ocean and Atmospheric Administration
- ▶ Foreign Governments
 - Foreign Military Sales (FMS) and NATO support

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RDSI Contractual Vehicles

▶ Prime Contracts

- N00178-04-D-4113 (SEAPORTE Prime)
 - RDSI is approved in all 7 geographic zones as a prime and a subcontractor
 - Approved in all 21 Functional Areas
- GSA Professional Services GS-23F-0265M



▶ Subcontractor to:

- SeaCorp
- Sonalysts
- Leidos
- Purvis
- Indus



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Core Competencies

- ▶ Systems Engineering
- ▶ Shipboard Design and Installation
- ▶ Antenna Design and Submarine Communications
- ▶ Program and Financial Management
- ▶ Research and Development
- ▶ Small Business Innovative Research (SBIR)
- ▶ Information Technology (IT)/Information Assurance (IA)
- ▶ Integrated Logistics Support (ILS)
- ▶ Configuration Management (CM)
- ▶ Blended Training Solutions

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Sustainment and Life Cycle Support

- ▶ Integrated Logistics Support (ILS)
 - Support all logistic elements and disciplines
 - Employ supportability engineering and sustainment processes
 - Develop Product Support Management (PSM) strategies
 - Identify and support AEA, TDA and ISEA ILS requirements
 - Independent Logistic Audit (ILA) documentation and support
 - Member of Integrated Product Teams (IPTs)
 - Antennas, Legacy Periscopes, Imaging Sensors, Electronic Support (ES), Electronic Warfare (EW)

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Maintenance Management

- ▶ Failure Reporting and Corrective Action System (FRACAS)
 - Ensures failures are formally reported, analyzed, and corrective action identified, and tracked for success
- ▶ Planned Maintenance System (PMS) Review and Development
- ▶ Reliability Centered Maintenance (RCM) Development and Analysis
 - RCM Certified - Levels 1 and 2
- ▶ Support to NAVSEA 04RM Maintenance Engineering Review (MERs)
- ▶ Reliability Based Sparing (RBS)
 - Modeling
 - Analysis
 - Sparing recommendations (ship, shore based and forward deployed)

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Supply Support

- ▶ Provisioning Technical Data (PTD)
 - Technical Support Agent (TSA)
- ▶ Range/depth of items to be stocked
- ▶ Source, Maintenance and Recoverability (SM&R) Codes
- ▶ Level of Repair Analysis (LORA)
- ▶ Allowance Parts Lists (APLs), Allowance Equipage Lists (AELs)
 - ICAPS
- ▶ Interim Material Supply Support
- ▶ Diminishing Manufacturing Sources and Material Shortages (DMSMS)
- ▶ Operating Material and Supplies (OM&S) inventory
- ▶ Sponsor Owned Material (SOM)
- ▶ Defense Logistics Agency (DLA)

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Electronic Documentation Solutions

- ▶ Interactive Electronic Technical Manuals (IETM)
 - custom solutions based upon client requirements
 - Individual Design Documents
 - Proof of Concept Model
 - Concept of Operations (CONOPs)
 - Define levels of interactivity
 - Electronic 'page turners' (Class 1 and 2)
 - Interactive Electronic Technical Manuals (IETMs) (Class 3 and 4)
 - S1000D Authoring Capability
 - Web based solutions to meet emergent Fleet requirements
 - Rapid development processes to meet aggressive installation schedules
 - ATIS Certified Products

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Data Management

- ▶ Database Development and Management
 - MS Access and MS SQL Relational Databases for:
 - NUWC Code 25 Warehouse DB
 - Defense Institute of International Legal Studies (DIILS) Student DB
- ▶ Ships Systems Manuals (SSM) Updates
- ▶ Engineering Change Instructions (ECIs)
- ▶ System Note Development
- ▶ Technical Management Manual Activity (TMMA) Support
 - Analyze and adjudicate Technical Manual Deficiency Evaluation Reports (TMDERs) for various systems and equipment
 - Advance Change Notices (ACNs)

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Material Management

- ▶ Warehousing and Inventory Management
 - Tactical submarine assets (Imaging & Electronic Warfare and Heavyweight Torpedo assets)
 - Receive, handle, package, mark, inspect, store, transport
 - Database and on-line updates
 - ERP Warehouse Operation Training
 - Generation of routine and special reports
 - Compliance with all Federal, DOD, State and local EH&S regulations
 - SUBSAFE/QAI
 - Metrology and Calibration Laboratory Support
 - Government Furnishing Equipment and Material (GFE/GFM) Storage and Accountability
 - DCMA Compliant Processes
 - Demilitarization (DEMIL) Support

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Training

▶ Training

- Prime developer of US Navy Submarine Electronic Warfare Support (ES) Training Emulators support Pipeline, Team Training and Pre-Deployment Training (PDT)
- Turn-key Training Systems – design, develop, deliver and install unique training delivery systems
- Member of the OPNAV Integrated Submarine Imaging System (ISIS) Training Planning Process Methodology (TRPPM) Steering Committee
- Work with NUWC to determine future training requirements for systems, equipment, and temporary engineering changes in support of evolving mission requirements
- Review engineering change proposals to determine impacts to existing Fleet curricula
- Material Support Agent (MSA) supporting NUWC Code 34 and NAVSEA 07L
- Updates to SWOS curriculum for Human Performance Readiness Reviews (HPPR) compliance

▶ Instructional System Design, Development, and Delivery

- Blended as well as stand-alone solutions (ICW, IMI, Simulation; Podium Lecture)

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Configuration Management (CM)

- Configuration Management Plans
- Software Configuration Life Cycle Plans
- Hardware and software baseline documentation
- Baseline development and maintenance
- Conduct hands-on audits
 - Functional – verify “as-tested” functional configuration
 - Physical – verify “as-built” against the technical data package/engineering drawings
- UID Plans and implementation
- Databases
 - CMPro
 - ILSMIS
 - ERP
 - CDMD-OA
 - Custom designs for Configuration Control Indexed IETMs

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Design and Drafting

- ▶ Computer Aided Design and Drafting (CADD)
 - Technical Data Packages
 - TEMPALTs, SHIPALTs, OPALTs, ORDALTs, Field Changes
 - Temporary Engineering Changes (TECs)
 - Drawing reviews and Validation/Verification
 - Drawing conversions
 - Solid Works
 - AutoCAD/MathCAD
- ▶ Technical Data Packages (TDPs)
- ▶ Hull, Mechanical, and Electrical (HM&E) Sail System support
- ▶ Engineering Change Proposals
- ▶ Engineering Change Requests (ECRs)
- ▶ Engineering Changes (ECs)

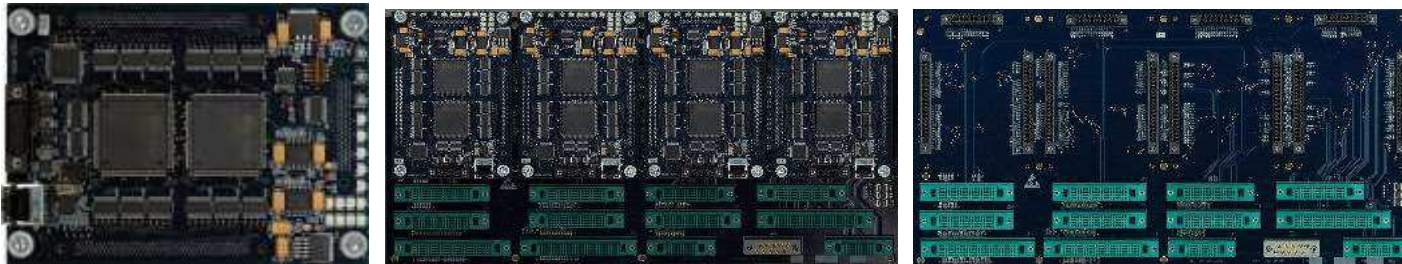
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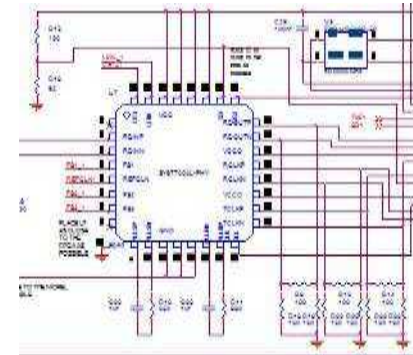
Circuit Board Design

▶ Hardware

- Circuit Designs (Analog, Digital, Mixed Technologies, Micro-Controller Based)
- Printed Wiring Board Design and Prototyping
- Cadence Allegro Development Software
- FPGA Designs (Actel, VHDL, etc.)
- Specialized Computer System Design and Manufacturing



Multiplexer/De-Multiplexer System



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Fabrication/Assembly

- ▶ **Circuit Card Assemblies (CCA)**
 - Prototype and Limited Production in House
 - Full Production Capabilities
 - Surface Mount and Thru Hole Capabilities
- ▶ **CCA Software/Hardware Integration**
 - Software Design
 - Test Plans (Hardware/Software)
- ▶ **Test Fixtures**
 - Board Level Test Fixtures
 - System Level Test Stations
- ▶ **Unit Assemblies**
 - Cable Assemblies
 - Wiring Harnesses
 - Unit Assemblies



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Information Assurance (IA) and Certifications

▶ Information Assurance (IA)

◦ Certifications:

- Certified Information Systems Security Professionals (CISSP)
- Microsoft MCSA/MCSE: Security
- Comptia A+ and Security +
- Comptia Linux +
- Cisco CCNA

◦ Trusted Agent

- Conduct scans and develop ATO Messages

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Digital Design

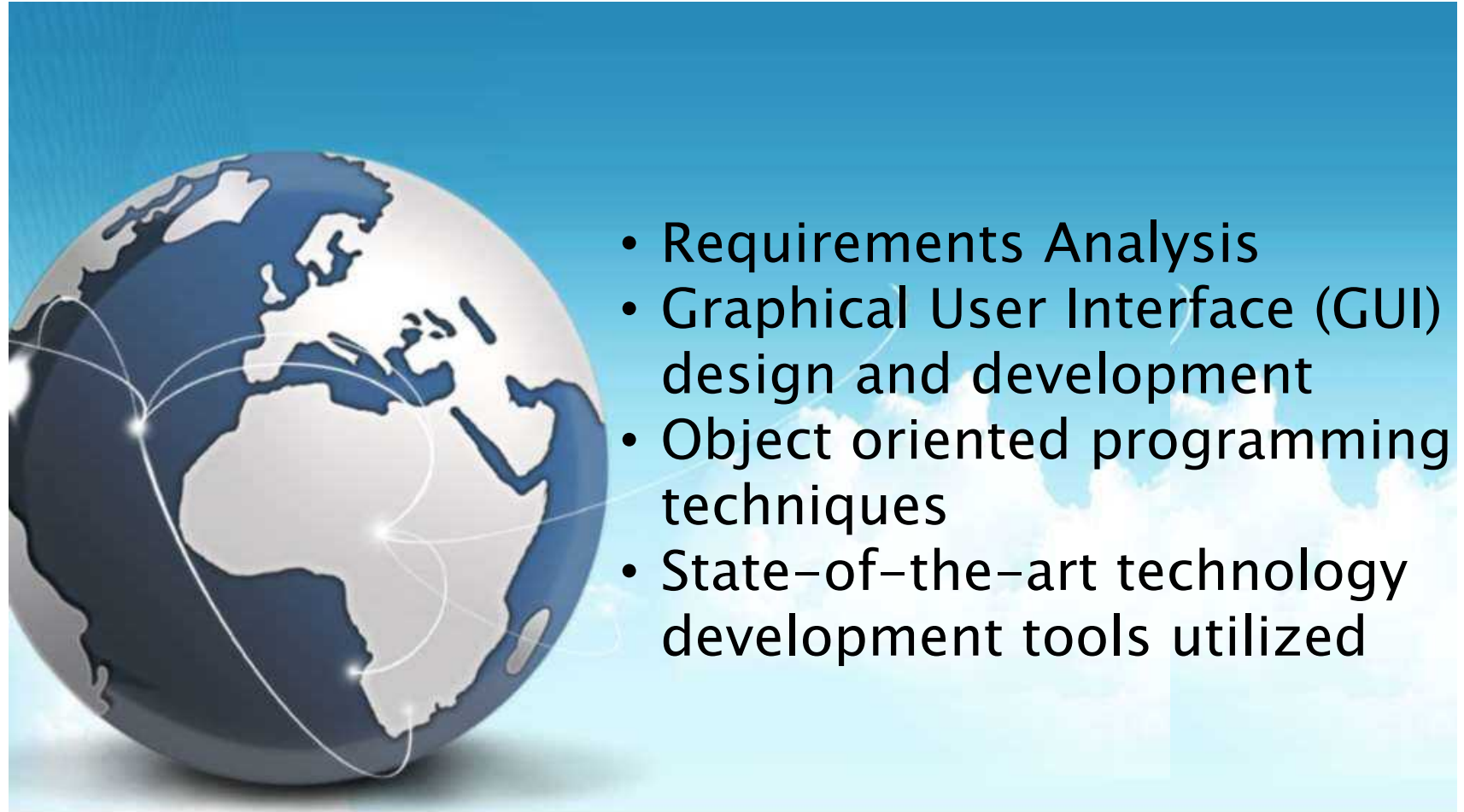
- ▶ Creative Digital Solutions
 - Virtual World design and development
 - Art design and direction
 - Animation and gaming



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Software

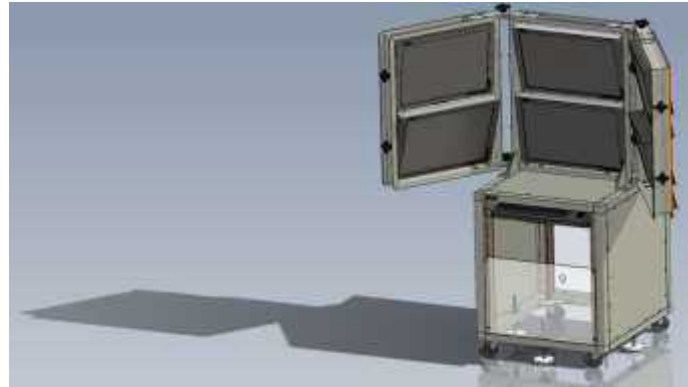


- Requirements Analysis
- Graphical User Interface (GUI) design and development
- Object oriented programming techniques
- State-of-the-art technology development tools utilized

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3-D Modeling and Design



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Field Services

- ▶ Alteration Installation Team (AIT)
 - NAVSEA Code 04XQ approved
 - Technical Data Package (TDP) development
 - Rip-out and Installation
 - Cable manufacturing and refurbishment
 - Shipboard rack manufacturing, refurbishment, installation, and hardware mounting(s)
 - RMMCO Interface
 - Inventory and Material Management



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Field Service Support

▶ Installations:

- Alteration Installation Team Leaders
- Fabrication, laboratory and ship board testing, installation and removal of Tactical Temporary Alterations (TEMPALTs)
- Draft and conduct PICO and SOVT testing on Submarine ES Suites
- Conduct certification training
- Support test events (FOT&E, OT&E, OTRR)



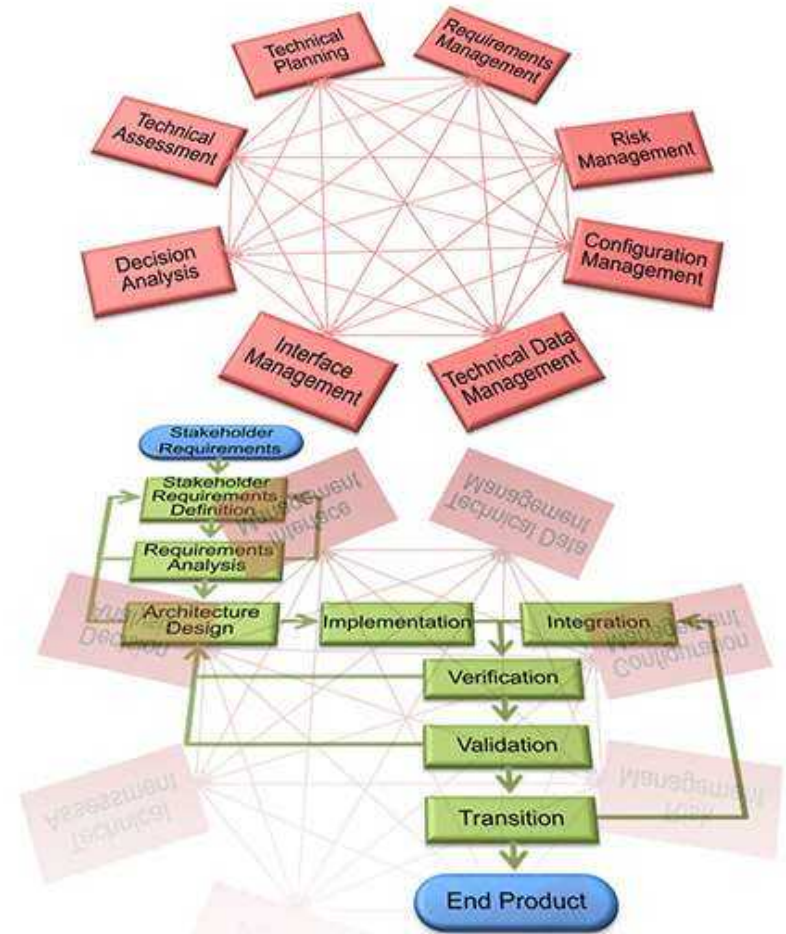
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System Engineering and Management

▶ Processes

- Requirements Analysis & Management Support
- Technical Planning and Assessment
- Decision Analysis
- CM & Data Management
- Risk Management Support
- System Integration
- Program Schedule and Planning
- Test and Evaluation



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System Engineering and Management (cont.)

▶ Program Documentation

- CDD, Specification Development
- AoA, BCA Development
- Program Review Support (PDR, CDR, PRR, TRR)
- Logistic Assessments
- Maintenance Documents
- QA/QC Support
- System Safety/Hazardous Material Analysis
- IA Support
- PESHE Development
- Test Plans & Procedures
- System Testing and Analysis
- Drawings and Interface Documentation
- UID Planning
- RMA Analysis
- TEMP Development
- DT/OT Support

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Test and Evaluation

▶ Test and Evaluation:

- Conduct antenna characterization
- Perform Dockside and Operational tests
- Design signal simulations and shore side signal testing platforms
- Outfit and operate various unique self contained mobile test platforms (shipboard and land based)
- Support to AUTECH, Fishers Island and other test sites



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Test and Evaluation

- Radar vulnerability studies using commercially developed and specialized function radars
- Pre and Post Overhaul Testing
- Systems Acceptance Testing
- First Article/Factory Acceptance Testing Support



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RDSI Products

Electronic Warfare Training Simulators and Stimulators



EWTS-()R



Electronic Warfare Equipment Emulators

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RDSI Products

▶ Hardware Systems

- Multi-Purpose Reconfigurable Training System for EW Support (MRTS-ES)
- Electronic Warfare Training Systems
 - Surface Ship EW Trainer (SSEWT)
 - EWTS-32SRS (ALQ-99) (EA-6B Weapons System)
 - Battle Force Electronic Warfare Trainer (BEWT) AN/USQ-T47(V)
 - EWTS-8i
 - EWTS-()R



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RDSI Multi-Purpose Reconfigurable Training System for EW Support (MRTS-ES)



MRTS-ES with emulations of
ES suites for AN/BLQ-10(V)
and AN/WLR-8(V) equipped
Submarines



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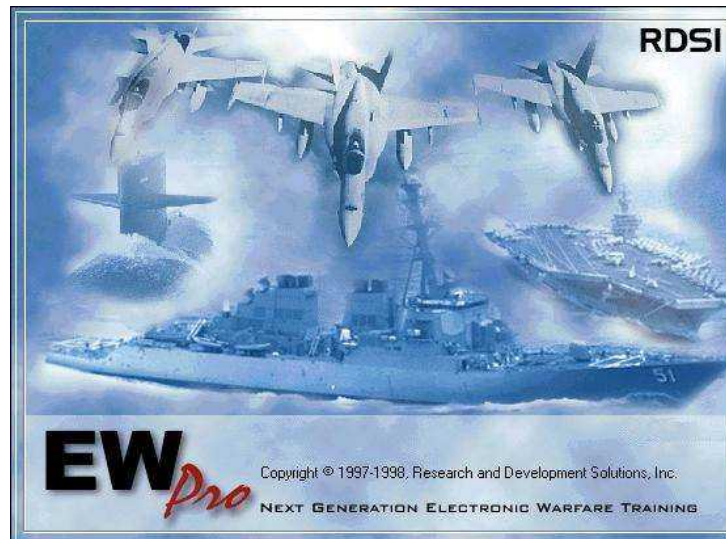
RDSI Products

▶ Hardware

- M/Pulse™ Card (Electromagnetic Emission Generator CCA)
- PCDXsi (Data Extract CCA)

▶ Software

- EWPro™
- SIGREC™



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Our Value Proposition

RDSI....

*Developing Affordable
Solutions for the Future*

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