

2002 IEEE Aerospace Conference Papers

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8.0101	Bounding the Problem: Microsatellite Design Using Commercial-Off-the-Shelf Architecture	Luke	Sauter	USAF Academy
8.0102	Low Power Radiation Tolerant VLSI for Advanced Spacecraft	Gary	Maki	Microelectronics Research Center
8.0103	Miniature Imaging Plasma Spectrometer: A New Approach with Large Geometric Factor and Wide Field of View	Federico	Herrero	NASA Goddard
8.0104	Empirical Modeling of Observed Microchannel Flow	Sue	Haupt	Utah State University
8.0201	High Thermal Conductivity Composites For Laser Diode Applications	Witold	Kowbel	MER
8.0301	Advanced Solar Tile Design and Performance	Craig	Flora	Ball Aerospace % Technologies
8.0302	A Lightweight, High Reliability, Single Battery Power System for Interplanetary Spacecraft	Paul	Anderson	Lockheed Martin Astronautics
8.0303	Capabilities and Technical Issues Regarding the Stirling Radioisotope Generator	Jeffrey	Schreiber	NASA Glenn Research Center
8.0304	X2000 Power System Electronics Development	Gregory	Carr	JPL
8.0401	Multiple Payload Adapters; Opening the Doors to Space	Brandon	Artritt	AFRL/VSSV
8.0402	An Alternative Low-Cost Space Access for Small Satellites	Arnold	Nowinski	AFRL
9.0101	Autothrottle Integrator Saturation Effects Performance of the Approach Power Compensator of the S-3B Flight Data Computer	Christopher	Parkes	Naval Air Systems Command
9.0102	"A Systems Engineering Approach to Flight Testing Complex Systems for the H-1 Upgrades Program"	Jennifer	Henderson	H-1 Upgrades
9.0103	Tilt Rotor Analytic Flight Test Support	Dean	Carico	Nava Air Warfare Center/Aircraft Division

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9.0104		Wade	McConvey	Naval Rotary Wing Aircraft Test Squadron
9.0201	Evolution as a Guide for Autonomous Vehicle Path Planning and Coordination	Brian	Capozzi	Metron Aviation
9.0301	Demonstration of the JEDI System on Joint STARS	Brian	Kish	Joint STARS Test Force
9.0302	Affordable Moving Surface Target Engagement Ila	Michael	Veth	Joint STARS Test Force
10.0101	Automated Workflow for Engineering Services	Ruth	Bergman	HP Labs, Israel
10.0102	Software Quality Assurance Engineering at NASA	Linda	Rosenberg	Goddard Space Flight Center NASA
10.0103	An Investigation of Techniques for Addressing Software Affordability	Robert	Bever	General Dynamics Decision Systems
10.0104	Virtual Engineering and Science Team - Reusable Autonomy for Spacecraft Subsystems	Michael	Johnson	NASA Goddard Space Flight Center
10.0201	Integrated Tools for Mission Operations Teams and Software Agents	Jane	Malin	NASA Johnson Space Center
10.0202	The Automated Wingman - Using JACK Intelligent Agents for Unmanned Autonomous Vehicles	Ralph	Ronnquist	Agent Oriented Software
10.0203	Smart Aerospace eCommerce: Using Intelligent Agents in a NASA Mission Services Ordering Application	Edward	Luczak	Computer Sciences Corp
10.0204	Testing and Monitoring Intelligent Agents and their Communities	Christopher	Rouff	SAIC
10.0205	A Component Framework Supporting Peer Services for Space Data Management	Daniel	Crichton	Jet Propulsion Laboratory
10.0301	Selection of Components for OTS Component-based Systems	Brad	Kizzort	Harris/STI
10.0302	The Component-based Environment for Remote Sensing	Nathan	DeBardeleben	Clemson University
10.0401	LARIAT: Lincoln Adaptable Real-time Information Assurance Testbed	Lee	Rossey	MIT Lincoln Laboratory
10.0402	Current Threats to and Technical Solutions for Voice Security	Mark	Collier	SecureLogix Corporation
10.0403	A Network-Centric UAV Organization for Search and Pursuit Operations	Raja	Sengupta	PATH
10.0404	Minuteman: Forward Projection of Unmanned Agents Using the Airborne Internet	Mario	Gerla	UCLA
10.0405	TBONE: A Mobile Backbone based Protocol for Mobile Ad Hoc Wireless Networks Employing Unmanned Vehicles	Izhak	Rubin	UCLA
10.0406	Tactical Information Operations in Autonomous Teams of Unmanned Combat Aerial Vehicles (UCAVs)	Fred	Templin	SRI International
10.0407	Greedy Adaptive Fano Coding	B. John	Oommen	Carleton University
10.0501	An Agent-Based and Market-Oriented Approach to Distributed ISR Resource Allocation	Christopher	Rouff	SAIC
10.0601	A Cyclic Subgraph Methodology for Estimating de Bruijn Weight Class Distributions	Gregory	Mayhew	Boeing Phantom Works
11.0101	Prognostics, from the Need to Reality; from the Fleet Users and PHM System Designer/Developers Perspectives	Andrew	Hess	NAVAIR 4.4.2
11.0102	Verification of PHM Capabilities: a Joint Customer/Industrial Perspective.	Sean	McQuillan	RAF Brampton
11.0103	Prognostic Enhancements to Diagnostic Systems for Improved Condition-Based Maintenance	Michael	Roemer	Impact Technologies, LLC
11.0104	Development of Performance and Effectiveness Metrics for Gas Turbine Diagnostic Technologies	Rolf	Orsagh	Impact Technologies
11.0105	Analysis of Space Shuttle Main Engine Data Using Beacon-based Exception Analysis for Multi-missions	Han	Park	Jet Propulsion Laboratory
11.0106	An Approach for Conducting a Cost Benefit Analysis of Aircraft Engine Prognostics & Health Management Functions	Malcolm	Ashby	GE Aircraft Engines
11.0201	Wireless LAN Technology for Engine Control and PHM	G. William	Nickerson	RLW, Inc.
11.0202	The Slow Evolution of the Wireless Sensor	Karl	Kiefer	Invocon, Inc.
11.0203	Wireless Applications for Condition Based Maintenance Systems	Robert	Harman	Luna Innovations
11.0301	Microstructural Damage Metrics For Failure Physics	Peter	Matic	Naval Research Laboratory
11.0302	Opto-Acoustical Sensor to Examine the Structural Integrity of the Complex Systems	Vladimir	Markov	MetroLaser, Inc.
11.0303	Enhancement of Physics-of-Failure Prognostic Models with System Level Features	Gregory	Kacprzyński	Impact Technologies
11.0304	Electrostatic Charge Generation Associated with Machinery Component Deterioration	Honor	Powrie	Smiths Aerospace, Electronic Systems - Southampton
11.0401	Integrating Model-Based Diagnostics With Simulation For Real Time Vehicle Health Monitoring	Richard	Elsley	Rockwell Scientific
11.0402	Diagnosability Analysis for Distributed Systems	Gregory	Provan	Rockwell Science Center
11.0403	From Fault Trees to Diagnostics Knowledge Base: Case Study and Quantitative Improvement Assessment	David	Joseph	ClickSoftware, Inc.
11.0404	F/A-18D(RC) Built-In-Test False Alarms	Kerry	Westervelt	NAWCAD
11.0405	Reducing the "No Fault Found" problem:Contributions from Expert-System Methods	David	Joseph	ClickSoftware, Inc.
11.0406	The information content of turbine engine data -a chance for recording based life usage monitoring	Hugo	Pfoertner	MTU Aero Engines GmbH
11.0407	Pathan - A New Approach to Gas Turbine Diagnostics	Roy	Peacock	Thermodyne
11.0501	Seeded Fault Testing in Support of Mechanical Systems Prognostic Development	Andrew	Hess	NAVAIR 4.4.2
11.0502	Upgrading Engine Test Cell for Improved Troubleshooting and Diagnostics	Rolf	Orsagh	Impact Technologies
11.0503	Survivable Engine Control Algorithm Development (SECAD)	Charles	Frankenberger	NAWCWD
11.0504	The JSF PHM and the Autonomic Logistic Concept:their Potential Impact on Aging Aircraft Problems	Andrew	Hess	NAVAIR 4.4.2
11.0505	A Testbed for Data Fusion for Gas Turbine Engine Diagnostics and Prognostics	Thomas	Brotherton	The Intelligent Automation Corp.
11.0506	Vibration Sensor Configuration Optimization for the AV-8B F402-RR-408 Engine	Jeffrey	Banks	Penn State Applied Research Lab

11.0507	V-22 Tiltrotor Aircraft Vibration Monitoring From Design to Field Operations	Dimitri	Dousis	Bell Helicopter
11.0601	Health Management System Design: Development, Simulation and Cost/Benefit Optimization	Gregory	Kacprzyński	Impact Technologies
11.0602	Anomaly Detection and Reasoning with Embedded Low Cost Physical Model	Link	Jaw	Scientific Monitoring, Inc.
11.0603	The Development and Demonstration of a Probabilistic Diagnostic and Prognostic System (ProDAPS) for Gas Turbines	Brian	Larder	Smiths Aerospace
11.0701	Detection, Discrimination and Real-Time Tracking of Cracks in Rotating Disks	Michael	Drumm	ExSell inc.
11.0702	Functional Evaluation of Robust Laser Interferometer Developed Technology System Design Choices	Martin	Karchnak	Epoch Engineering, Inc.
11.0703	Monitoring Blade Passage in Turbomachinery Through the Engine Case (No Holes)	Peter	Tappert	Hood Technology Corporation
11.0704	Surface Roughness and Vibration Study of an Accelerometer Mount in a Helicopter	David	Hochmann	Fuel and Utility Systems
11.0705	Surface Mounted and Scanning Periodic Field Eddy Current Sensors for Structural Health Monitoring	Andrew	Washabaugh	JENTEK Sensors, Inc.
11.0801	PROMIS - Methodology for Prognostic Health Management	Ronald	Zeelen	TNO TPD
11.0802	A Test Station Health Monitoring System	Kevin	Fitzgibbon	Total Quality Systems, Inc.
12.0101	Look Ma, No Hans!	Nick	Smith	Lockheed Martin
12.0201	A Backroom Mission Operations Center for TechSat 21	Paul	Zetocha	Air Force Research Lab
12.0202	Low Cost Ground Systems - Fantasy or Reality	curtis	fatig	GSFC
12.0301	Training of a Crater Detection Algorithm on Mars Crater Imagery	Tatiana	Vinogradova	JPL/Caltech
12.0302	A Multipropagator Approach to Real-Time Orbit Simulation	Thomas	Tillman	L-3 Communications
12.0401	Operations Concept for the TES Mission Operations	Padma	Varanasi	Jet Propulsion Laboratory
12.0402	Mars Mission Operations Facility Design	Jeffrey	Norris	Jet Propulsion Laboratory
12.0403	Relating Downlink Products to Uplink Commands in Mars Rover Operations	Paul	Backes	Jet Propulsion Laboratory
12.0404	Visualization of Spectroscopy for Remote Surface Operations	Mark	Powell	Jet Propulsion Laboratory
12.0405	Distributed Mission Operations Experiences with the Multi-mission Encrypted Communication System	Robert	Steinke	Jet Propulsion Laboratory
12.0406	Link-Capability Driven Network Planning and Operation	Charles	Lee	California State University
12.0407	Applying the Lessons of Internet Services to Space Systems	James	Cutler	Space Systems Development Laboratory
12.0501	e-STARS, An On-line Process for Documentation	Brian	Cox	Brian Cox
12.0502	An Automated Chest Pain Diagnostic System For Distant Space Travel	Leonard	Wesley	Intellex
12.0503	Automating Knowledge Capture and Literature Sharing in the Space Science Directorate at NASA - Goddard	A.	Stoffel	Bill Stoffel
12.0601	Progressive Automation in Aerospace Systems	Brad	Kizzort	Harris/STI
12.0602	QoS Tradeoffs for Guidance, Navigation, and Control	Ella	Atkins	University of Maryland
13.0101	DSEND5 - A High-Fidelity Dynamics and Spacecraft Simulator for Entry, Descent and Surface Landing	J	Balaram	JPL
13.0201	Optimizing the Design of an end-to-end Spacecraft System using risk as a currency.	Steven	Cornford	JPL
13.0202	Dynamic Risk Assessment Of CFD Codes	Leonard	Wesley	Intellex
13.0301	Small Satellite Thermal Modeling, Simulation, Analysis, and Design: US Air Force Academy FalconSat-2 Applications	Richard	Lyon	Richard H. Lyon
13.0302	Automated Data Processing and Cosmic Ray Mitigation of Up-the-Ramp Sampled Data	Joel	Offenberg	Joel D Offenberg
13.0401	A Synthesis of Engineering and Business Best-Practices to Achieve Breakthroughs in Flight Hardware Delivery	Kevin	Clark	Jet Propulsion Laboratory
13.0402	Rapid Spacecraft Development: Results and Lessons Learned	William	Watson	Goddard Space Flight Center
13.0403	THE IMPACT OF SMALL BUSINESSES ON CRITICAL NASA SPACE MISSIONS	Ralph	Thomas III	NASA
13.0404	Forming and Leading Powerful Teams	Ivan	Rosenberg	Frontier Associates, Inc.
13.0405	Distributed Teaming on NASA Projects -- Abstract (Outline)	Lynn	Baroff	Jet Propulsion Laboratory
13.0406	A Systems Management Approach to Improving Performance and Reducing Risks in Research Projects and Programs	Michael	Gilbert	NASA Langley Research Center
13.0407	Managing Unmanned Flight Projects using methods in Complex Product Development	Srinivas	Mohan	Jet Propulsion Laboratory
13.0408	Management Alternatives for the International Space Station	Bob	Werb	ISS Congress
13.0409	A Personnel/User Database Implementing EAR/ITAR Compliant Access Controls to a Project Information System	Donna	Avila	Jet Propulsion Laboratory
13.0501	Smoothing the Integration Path:Key Elements in the Design of Data Interfaces and Simulators	Ronnie	Killough	Southwest Research Institute
13.0502	Relating Failure Prognostics to System Benefits	Michael	Bridgman	LMI
14.0101	The NASA Office of Space Science Gossamer Technology Program: An Overview	Melvin	Montemerlo	NASA Headquarters
14.0102	INRONICS: A Revolutionary Technology for Gossamer Spacecraft	Christopher	Moore	NASA Langley
14.0103	Eyeglass: A Large, Low Mass Space Telescope	James	Early	LLNL
14.0104	The DART system for FarIR/submillimeter membrane telescopes	mark	dragovan	jpl
14.0105	Magnetomechanical damping by polycrystalline TbDy	Jennifer	Dooley	Jet Propulsion Laboratory
14.0106	Fresnel Lens technolgoy for wide angle imaging	Roy	Young	Marshall Space Flight Center
14.0201	Status of CHIPS: a NASA University Explorer Astronomy Mission	Will	Marchant	Will Marchant

14.0202	Bolometric Detectors for the High Frequency Instrument on the Planck Surveyor	Timothy	Koch	Jet Propulsion Laboratory
14.0301	The Interplanetary Superhighway and Origins	Martin	Lo	JPL
14.0302	Innovative Quantum Technologies for Microgravity Fundamental Physics and Biological Research	Isabella	Kierk	Jet Propulsion Laboratory
14.0401	Astronaut Construction of Large Space Structures and Considerations for Future Space Missions	Judith	Watson	NASA
14.0402	Robotic Assembly of Truss Structures for Space Systems and Future Research Plans	William	Doggett	NASA Langley Research Center
14.0403	EVA, Robotic, and Cooperative Assembly of Large Space Structures	David	Akin	David L. Akin
14.0404	Assembly and Servicing of a Large Telescope at the International Space Systems	Ronald	Muller	QSS Group, Inc.
14.0405	Applying Kinodynamic Motion Planning with a Dynamic Priority System to Multi-Robot Space Systems	Christopher	Clark	Aerospace Robotics Lab
14.0406	Exploratory Motion Generation for Monocular Vision-Based Localization	Eric	Frew	Aerospace Robotics Lab
14.0407	Dialogue-Based Human-Robot Interaction for Space Construction Teams	Henry	Jones	Aerospace Robotics Laboratory
14.0408	A method for estimating costs and benefits of space assembly and servicing by astronauts and robots	Lloyd	Purves	GSFC
14.0409	Review of Components for Large Spacecraft Implementation	richard	fullerton	nasa jsc
14.0501	NASA's Commercial Space Centers: Bringing together Government and Industry for "Out of this World" Benefits	Robert	Robinson	NASA
14.0601	To C++ or to Java, That is The Question!	Ihssan	Alkadi	Nicholls State University