

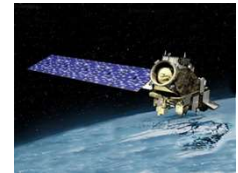
EDUCATION

1985 **B.S. Mechanical Engineering**
University of Maryland, College Park, MD

EXPERIENCE

7/16 - Present **Joint Polar Satellite System (JPSS-2/3/4)**
Project Thermal Subsystem SME

- Subject Matter Expert (SME) providing technical thermal engineering expertise to the JPSS-2 project management team
- Responsible for oversight of the JPSS observatory thermal design, analysis, schedule, integration and verification
- Review, track and manage thermal requirements
- Support technical interchange meetings with other engineering subsystems
- Direct, plan and manage activities associated with the engineering design and analysis efforts among subsystems
- Review component level, instrument level and observatory level Thermal Desktop™ thermal models and thermal analysis reports
- Support technical discussions with NASA Task Managers regarding design issues, TCS design, development and test approaches, and assessment of TCS test/analysis results
- Review thermal subsystem specifications, test plans, test procedures and test reports
- Support systems engineering meetings, trade studies and development tests



2/02- Present **Tracking Data & Relay Satellite System (TDRSS)**
Sustaining Engineering Thermal Consultant

- Support on-orbit operations, on-orbit/ground testing, analysis & support of on-orbit anomaly investigations, etc.
- Support fleet status reviews and other reviews, including those at White Sands Complex (WSC).
- Provide insight into the development of strategies to extend the life of the existing TDRSS fleet
- On-orbit thermal subsystem performance evaluation and trending analysis for TDRS H, I, J
- Deployments and acquisitions support from WSC for new TDRS satellites placed in orbit
- Monitor and provide thermal status for all TDRS satellites
- Develop thermal subsystem data trending reports



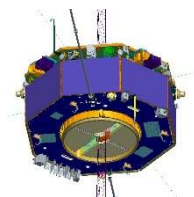
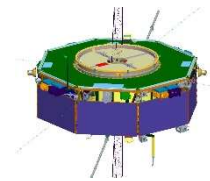
- Manage development and flight correlation of TDRS 3-7 and TDRS 8-10 Thermal Desktop™ thermal models
- Senior Thermal Engineering support for the TDRS K/L Continuation effort as a member of the standing review board (SRB)
- Familiar with risk evaluation, tracking, and risk mitigation implementation techniques consistent with NASA continuous risk management processes

5/07 - 7/16

Magnetospheric Multi-Scale (MMS) Mission

Observatory Thermal Lead

- Responsible for the spacecraft and observatory thermal design, analysis, schedule, integration and verification for the four MMS observatories
- Define, document and manage lower level thermal requirements
- Review component level, instrument level and observatory level Thermal Desktop™ thermal models and thermal analysis reports
- Develop thermal subsystem specifications, test plans, test procedures and test reports
- Support systems engineering meetings, trade studies and development tests
- Introduce design concepts, thermal control options and negotiate interfaces between subsystems
- Support complex and/or technically challenging tasks
- Provide details for task plans and technical approaches.
- Conduct technology assessments and makes recommendations for technology insertions, such as the 1-Wire temperature sensors
- Review component, instrument and observatory thermal interface control drawings and documents (TICD)
- Support Astrotech, VIF, launch pad and ascent thermal analysis
- Support Launch Services Program (LSP) thermal analysis requirements
- Support United Launch Alliance (ULA) LV ICD and gas thermal analysis requirements
- Specify flight thermal control system (TCS) hardware
- Status cost and schedules to support earned value reporting
- Present thermal design and system design reviews
- Lead thermal team established by the Program Manager to evaluate and address task-level issues/concerns and make recommendations for recovery plans and implementation considerations



5/96 - 1/01

Earth Observing-1

Lead Thermal Engineer

- ELV Launch on 11/21/00
- Developed the TV Test Plan and Procedure “Earth Observing-1 (EO-1) Spacecraft Thermal Vacuum Test II Procedure “
- Designed/Analyzed/Installed Test Setup
- Developed ISO 9001 procedures for installing and testing heaters, thermostats, thermistors and silver teflon for radiators
- Completed EO-1 Thermal Subsystem Final Report – SAI-RPT-322, Rev A (8/2000)
- Launch Site Operations (8/2000 – 11/2000)
- Final closeouts on launch pad
- Launch Support (November – December 2000)
- S/C thermal systems working flawlessly
- Post Flight Thermal Status Report
- Thermal subsystem performing as designed Launch +2 years
- Thermal Louver installation and final spacecraft checkout at the launch site.
- EO-1 mission officially ended on 11/21/01 after completing its scheduled 1-year mission. However, its flawless performance allowed NASA to continue the mission until 30-Mar-2017
- Final: 16 years, 4 months, 8 days



CLEARANCE

May 2002

Secret Clearance granted

SPECIAL TRAINING

- Proficient in thermal analysis codes Thermal Desktop/RADCAD, SINDA/FLUINT, SINDA/G, SINDA, TSS, TRASYS, NEVADA, IDEAS/TMG, SSPTA and TARP
- Knowledge of software codes including Fortran, Visual Basic, HTML, Perl, PHP, ASP and C/C++

RELATED EXPERIENCE

6/85 - 5/89

NASA / Goddard Space Flight Center, Greenbelt, Maryland
Thermal Engineering Branch

SPECIAL ACHIEVMENT

- In 2016, received 2015 Robert H. Goddard Exceptional Achievement Award for Engineering for exemplary thermal engineering support for the

Magnetospheric Multiscale Mission (MMS) and Tracking and Data Relay Satellite (TDRS) missions.

- In 2011, selection to receive the SAE Forest R. McFarland Award. This Award recognizes individuals for their outstanding contributions toward the work of the SAE Engineering Meetings Board (EMB) in the planning, development, and dissemination of technical information through technical meetings, conferences and professional development programs or outstanding contributions to the EMB operations in facilitating or enhancing the interchange of technical information.
- In 1989, obtained a copyright for the Simplified Space Payload Thermal Analyzer (SSPTA), called SSPTA/386. A radiation and orbital heating rate thermal analysis software program that is currently being used in both government and industry. In 1995, the software was upgraded and renamed to "SSPTA for Windows".

TECHNICAL PAPERS

- Teti, Nicholas M, "Innovative Approach Enabled the Retirement of TDRS-1 Compliant with NASA Orbital Debris Requirements", IEEE Aerospace Conference AIAA, Technical Co-Sponsor March 5-12, 2011, Big Sky, Montana
- Teti, Nicholas M, "Earth Observing-1 Technology Validation: Low Absorptance Inorganic White Paint AZW/LA-II", 33rd International Conference on Environmental Systems, July 2003
- Teti, Nicholas M, "Earth Observing-1 Technology Validation: Carbon-Carbon Radiator Panel (CCRP)", 33rd International Conference on Environmental Systems, July 2003
- Teti, Nicholas M., Krein, Steve, "EO-1 Spacecraft Thermal Vacuum Testing: An Innovative Approach to Cost Effective Verification", 30th International Conference on Environmental Systems, July 2000
- Teti, Nicholas M., "EO-1 Spacecraft Thermal Design and Analysis: Using the Thermal Synthesis System (TSS) and SINDA/FLUINT", 30th International Conference on Environmental Systems, July 2000
- Teti, Nicholas M., "Spartan 207 Inflatable Antenna Experiment Thermal Analysis Using Multiple Submodels with SINDA '85", 27th International Conference on Environmental Systems, July 1998
- Teti, Nicholas M., "Simplified Space Payload Thermal Analyzer for Windows 95", 26th International Conference on Environmental Systems, July 1996
- Teti, Nicholas M., Birsa, Brent D. "Geometric Archetype Design System (GADS)", 25th International Conference on Environmental Systems, July 1995



Nicholas M. Teti

Chief Thermal Engineer II

nteti@vertexaerospace.com

- Teti, Nicholas M., "Microcomputer Spacecraft Thermal Analysis Routines (MSTAR), Phase I & II: The Geometric Model Generator", 24th International Conference on Environmental Systems and 5th European Symposium on Space Environmental and Control Systems, June 1994
- Teti, Nicholas M., "Microcomputer Spacecraft Thermal Analysis Routines (MSTAR), Phase I: The User Interface", 23rd International Conference on Environmental Systems, July 1993.
- Teti, Nicholas M., "Spacecraft Thermal Analysis Using the Simplified Space Payload Thermal Analyzer (SSPTA)", 4th European Symposium on Space Environmental and Control Systems, ESA SP-324, October 1991