

Rommel N. Zara

Senior Thermal Engineer

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AEROSPACE/SENIOR THERMAL ENGINEER

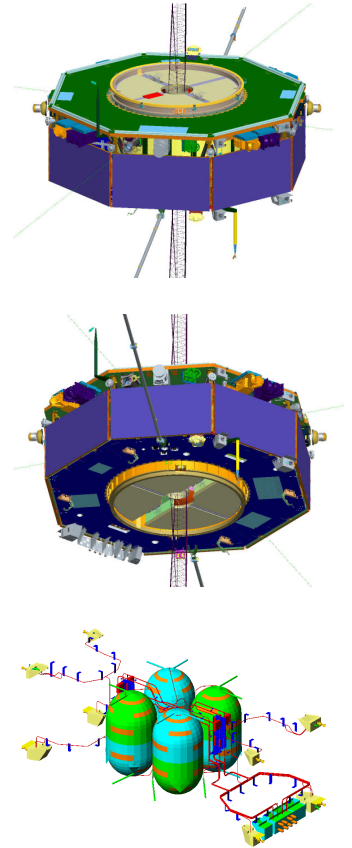
EXPERIENCE

11/06 -
PRESENT

Magnetospheric Multi-Scale (MMS) Mission

Senior Thermal Engineer

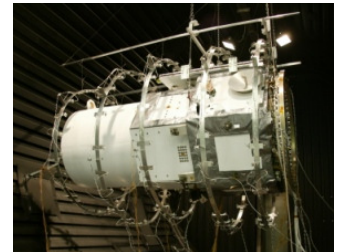
- MMS is a constellation of 4 spacecraft to be launched in 2015
- Responsible for the observatory thermal design and analysis
- Extensive knowledge and experience with Thermal Desktop™, TSS and SINDA/FLUINT thermal analysis tools
- Responsible for oversight of the observatory level Thermal Desktop™ models and presenting the thermal analysis results
- Support thermal and spacecraft subsystem engineering meetings, trade studies and development tests
- Knowledge of thermal coatings, thermal control system (TCS) hardware and thermal design techniques
- Develop TCS specifications, interface control documents (ICD)
- Specify and procure thermal control hardware including heaters, thermostats, thermistors, heat pipes, multi-layer insulation (MLI), thermal interface materials and thermal coatings
- Oversight of TCS integration for spacecraft and instruments
- Present thermal design and analysis at system design reviews
- Experience in developing thermal vacuum test (TV) plans and procedures
- Experience in developing Work Order Authorizations (WOA)
- Experience with leading thermal vacuum tests at NASA/GSFC
- Performed thermal model correlation from thermal balance (TB) test data



3/07-5/08

TacSat-3 Thermal Systems Lead Engineer

- Responsible for the design, analysis, hardware procurement, integration, verification, testing, and documentation of the TacSat-3 bus thermal control system for the Air Force Research Lab.
- Responsible for developing the post thermal balance final flight Thermal Desktop™ and SINDA/FLUINT temperature predictions
- Responsible for the TacSat-3 thermal subsystem schedule, cost, and resources.



1/04 - 2/07

THEMIS Thermal Systems Lead Engineer

- Responsible for all aspects of the THEMIS (UCB/GSFC Constellation of 5 spacecraft) thermal control system including requirements definition, design, analysis, hardware procurement, integration, verification, testing, model correlation, documentation, and early orbit launch operations.
- Responsible for the THEMIS thermal subsystem schedule, cost, and resources.



06/06 - 05/07

GOES-ABI Loop Heat Pipe Radiator Lead Thermal Analyst

- Performed thermal design analysis on a Two-Phase thermal Loop Heat Pipe (LHP) Radiator using Thermal Desktop™ (FloCad) and SINDA/FLUINT.

5/02 - 05/04

MLA Instrument Lead Thermal Analyst

- Lead thermal analyst on the Mercury Laser Altimeter instrument. Active thermal control design with Thermo-Electric Cooler. Performed design and test analysis including STOP analysis using FEMAP, Thermal Desktop and SINDA/FLUINT.

11/00 - 05/02

QuikTOMS Lead Thermal Analyst

- Lead thermal analyst on the Total Ozone Mapping Spectrometer (TOMS) instrument. Software used includes TSS, TRASYS and SINDA.

1/00 - 11/00

EO-1 Thermal Analyst

- Performed thermal analysis for flight and thermal balance/vacuum testing of the EO-1 spacecraft. Software used includes TSS and SINDA-85.

04/98 – 01/00

Thermal Products Co-op

- Supported design, manufacture and testing of Multi-Layer Insulation (MLI) blankets for FUSE, MAP and EO-1
- Supported manufacturing and testing of Constant Conductance Heat Pipes, Capillary Pumped Loops, and Loop Heat Pipes for the Swales Thermal Products group. Programs include commercial and NASA products including Hubble Space Telescope CPL radiator.

EDUCATION

B.S. Aerospace Engineering. May 2000

University of Maryland at College Park. College Park, MD

INTERESTS

Family and Golf