

RMO Business Management Review

March 28, 2002

AEROSPACE TECHNOLOGY PROGRAMS

BASE

- **GRC AEROSPACE PROPULSION AND POWER (APP)**
- **ARC COMPUTING, INFORMATION AND COMMUNICATION TECHNOLOGY (CICT)**
- **ARC ENGINEERING FOR COMPLEX SYSTEMS (ECS)**
- **MSFC 3RD GENERATION REUSABLE LAUNCH VEHICLE (3RDGEN)**
- **GRC NASA RESEARCH ANNOUNCEMENTS (NRA'S)**

FOCUSED

- **GRC ULTRA EFFICIENT ENGINE TECHNOLOGY (UEET)**
- **LRC AVIATION SAFETY (AVSP)**
- **ARC AVIATION SYSTEMS CAPACITY (ASC)**
- **MSFC 2ND GENERATION REUSABLE LAUNCH VEHICLE (2NDGEN)**
- **LRC QUIET AIRCRAFT TECHNOLOGY (QAT)**
- **ARC SMALL AIRCRAFT TRANSPORTATION SYSTEM (SATS)**

CODE Q PROGRAM



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GRC BASE APP

- LANL activity progressing, visit to HQ planned
- CSU grant is funded, kickoff next month

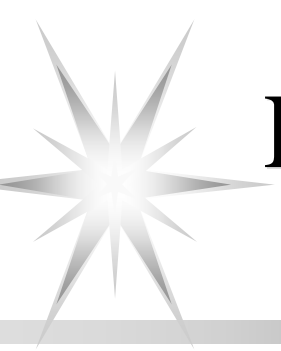


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ARC BASE ECS

- EPS Probabilistic task progressing, with initial analysis completed
- Level 3 position discussed
- Support for Ultra Reliability for complex systems meeting at JPL on April 15th



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MSFC BASE 3RDGEN

- No interest from TBCC



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LARC AVSP

- Work on weather forward looking turbulence and TAMDAR sensors continuing
- No activity on accident mitigation this month

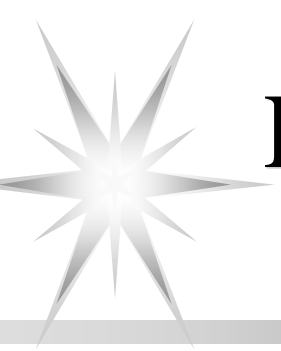


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ARC ASC

- No activity



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MSFC 2NDGEN

- Steering Committee scheduled for April 9th at HQ

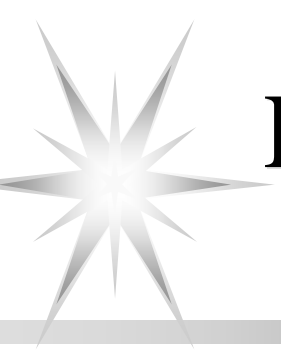


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LRC QAT

- Working on welding issues related to procedures



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ARC SATS

- No activity



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CODE Q FAA RTOP

- Pilot program presentation made to PM's
 - Follow on briefs planned to each program (APP, UEET, AvSP)
- Planning to support Propulsion and Power System Alliance May 2nd
- Rotor life/transmission usage proposal in work
- Training course work on hold
- Guidelines work on hold
- CD ROM not completed

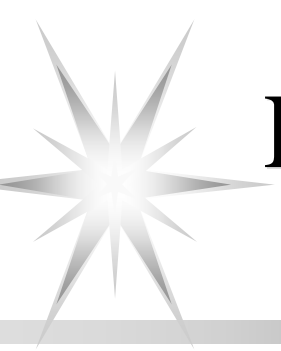


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CODE Q RISK ASSESSMENT RTOP

- Some funding from HQ expected in early April, so prioritizing the following:
 - AEE architecture
 - Training of PDT and Expert Elicitation
 - QRAS outreach
 - Probabilistic tool validation project plan
 - NESTEM commercialization
 - Probabilistic lifing
 - Probabilistic aeroelasticity



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PRA

- Code Q Risk Assessment RTOP
 - Commercialization of NESTEM
 - Toledo grant for aeroelasticity
- ECS EPS task
- 2nd Gen RLV Steering Committee
- APP LANL activity
- APP CSU grant



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PLANNED AEROSPACE TECHNOLOGY & CODE Q **PROGRAMS FOR FY'02**

- Civil servant requirements
- Support service contractor requirements

See the following web site for detailed program schedule information:

- <http://osat.lerc.nasa.gov/0510Projects>



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UEET Program

Accomplishments:

- March 13 Received feedback from the CMS Contractors who are independent Cost Estimator Consultants for NASA Headquarters, that the UEET Continuous Risk Management Plan was one of the best that they have seen.
- March 15 Presented the preliminary results of the Reliability Assessment of the Advanced Subsonic Combustion Rig Test Facility to the UEET Emissions Reduction Project Manager and the ASCR Test Facility Managers. Significant findings.
 - Final presentation to be given to the UEET Program Manager on April 17.



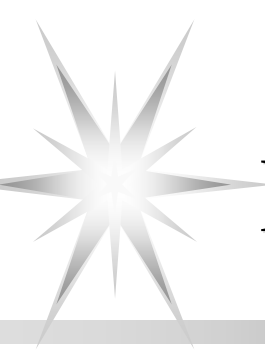
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UEET Program

Accomplishments:

- Wrote an abstract for the ATC Conference entitled “Success Factors in the Integration of Safety and Mission Assurance in the Aeronautics Enterprise- A NASA Culture Change”. On Feb. 12, Dr. Greenfield expressed an interest in seeing the first draft and all of the details of this paper as soon as possible.
- Wrote an RTOP for ‘Ultra Reliability for New Aeronautics Test Facilities’ requesting funding to have a Human Factors consultant review new designs until we enhance that capability at GRC.

Issues and Issues/Concerns: None

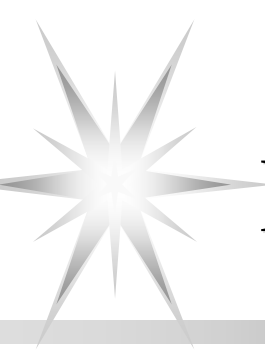


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UEET Program

Major Program/Technical Discipline Milestones:

- Completion of the Independent Facility Assessment for the ASCR UEET Emissions Project by April 16.
- Support the Pre-IAR on April 1, 2002
- Presentation of OSAT capabilities to support the new design of Aeronautics Test Facilities. This will include the areas of reliability assessments of the system and subcomponents, the reduction of maintenance through reliability centered maintenance analysis, the prediction of failures over the period of operational testing, the need for redundancy and spares and a human factors engineering review.

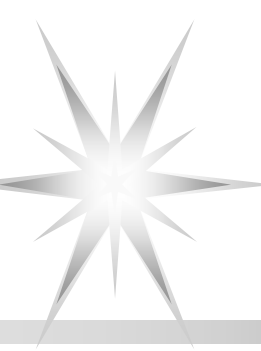


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PBMA Program

Accomplishments:

- Was notified that NASA Code Q will be awarding the entire PBMA RTOP, in excess on \$1M yearly, to GRC starting in FY03.
- Wrote the FY03 PBMA RTOP, including 12 pages of tasks associated with FY03 work.
- Conducted PBMA training and deployment at the JPL on Feb. 26-27.
- Conducted PBMA training and deployment at the DFRC on Feb. 28.
- Represented PBMA at the CQSDI Conference in Port Canaveral FL on Mar. 3-5 with a literature display table
- Presented a PBMA overview at the Quality Leadership Forum on March 8 at Port Canaveral FL.



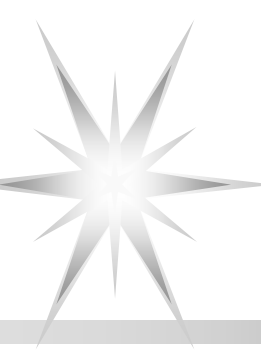
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PBMA Program

Accomplishments:

- Presented the Maturity Assessment Function overview to Code Q on Feb. 12-13.
- Participated in a NASA Headquarters management decision that the MAF and the PBMA computer architecture functionality would be assigned to ARES Corporation Contractor in order to streamline the management interfaces
- Evaluated PBMA security and server issues for the possible placement of servers at GRC.
- Participated in a management decision to locate server at GRC and to buy software to support its computer architecture.

Issues/Concerns: None



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PBMA Program

Major Program/Technical Discipline Milestones:

- The PBMA management team was recommended for the NASA Honor Medal and the Excellence in Government awards.
- The PBMA Training and Deployment Team was recommended for a GRC Group Achievement Award (GAA)
- April 22-25 Headquarters supported e-Government Conference at the Reagan Center in Washington. D.C.
- June 5-6 Communities of Practice Workshop at the Computer Science Corporation in Fairview VA.
- Writing a NASA Tech Brief on PBMA
- Preparing an article for the GRC AeroSpace Frontiers May Issue