



NASA Transformation- How is it working? NASA Engineering and Safety Center

NASA Risk Management Conference

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NASA Headquarters



NASA Engineering & Safety Center

**Mission Success Starts
with Safety**

**Safety begins with
Engineering Excellence**

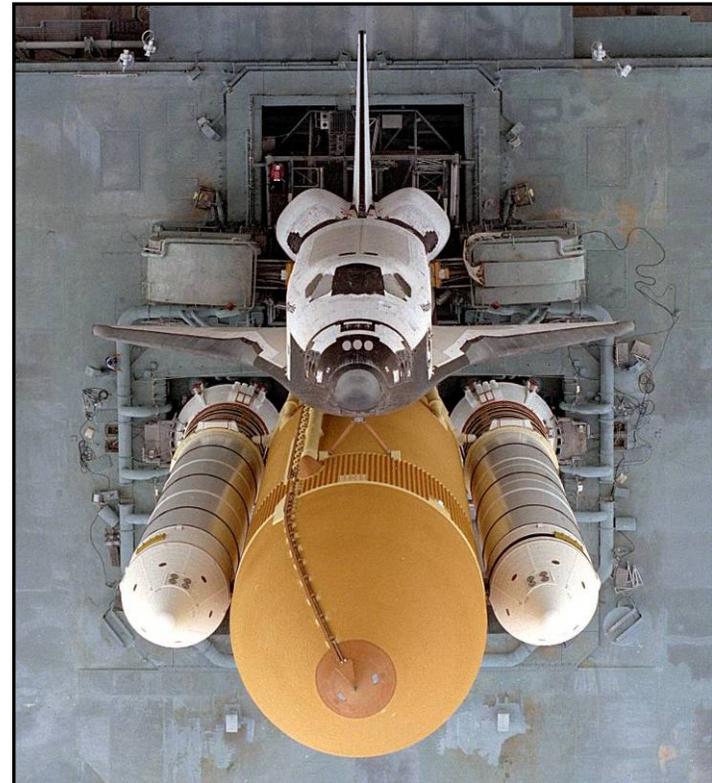
NESC MODEL



- Simple, straightforward concept – institutionalize the “Tiger Team” approach

Bring together some of NASA’s best engineers with experts from industry, academia, and other government agencies to address our highest risk, most complex issues

- Decentralized organizational structure across all Centers reporting to the NESC management office at LaRC
- Engineers need to be where the problems are to stay sharp



Space Shuttle on Mobile Launch Platform

NEESC MODEL (Continued)



- Small core of engineering experts at Centers for insight into respective programs
- Recognized Agency discipline experts leading Super Problem Resolution Teams (SPRT)
 - Use “ready” experts from across NASA, Industry, Academia and other government agencies to staff SPRTs
 - Tap “ready” experts to attack “trouble spots”.
- Strong Systems Engineering function for proactive trending and identification of problem areas before failures occur



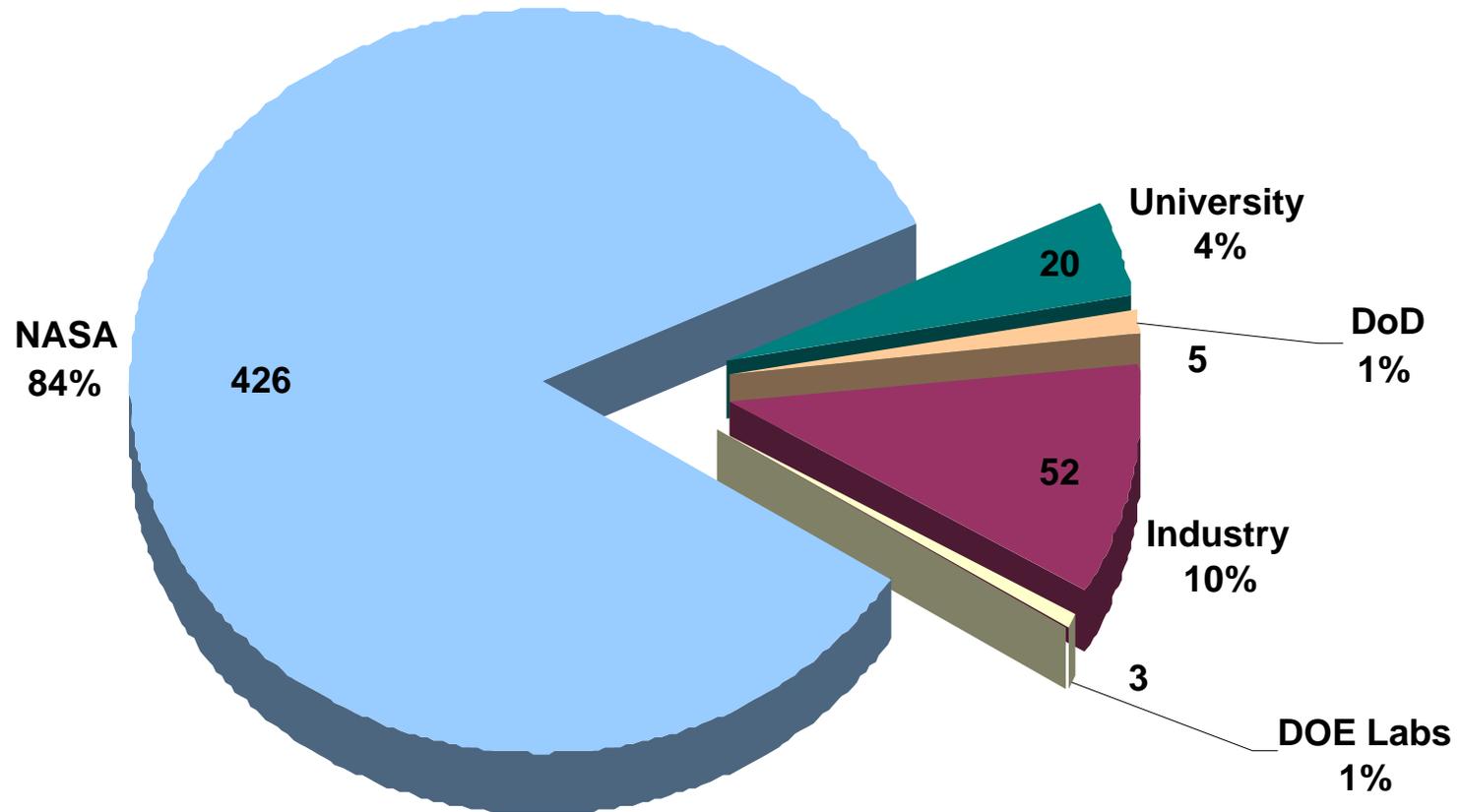
Hubble Space Telescope

Focus on technical rigor and engineering excellence

NEESC ORGANIZATION (Continued)



Composition of NEESC's Extended Network of Experts



PARTNERSHIPS / COLLABORATIONS



National Institute of Aerospace



Lawrence Livermore National Laboratories



Wedeven Associates, Inc.



Institute of Nuclear Power Operations



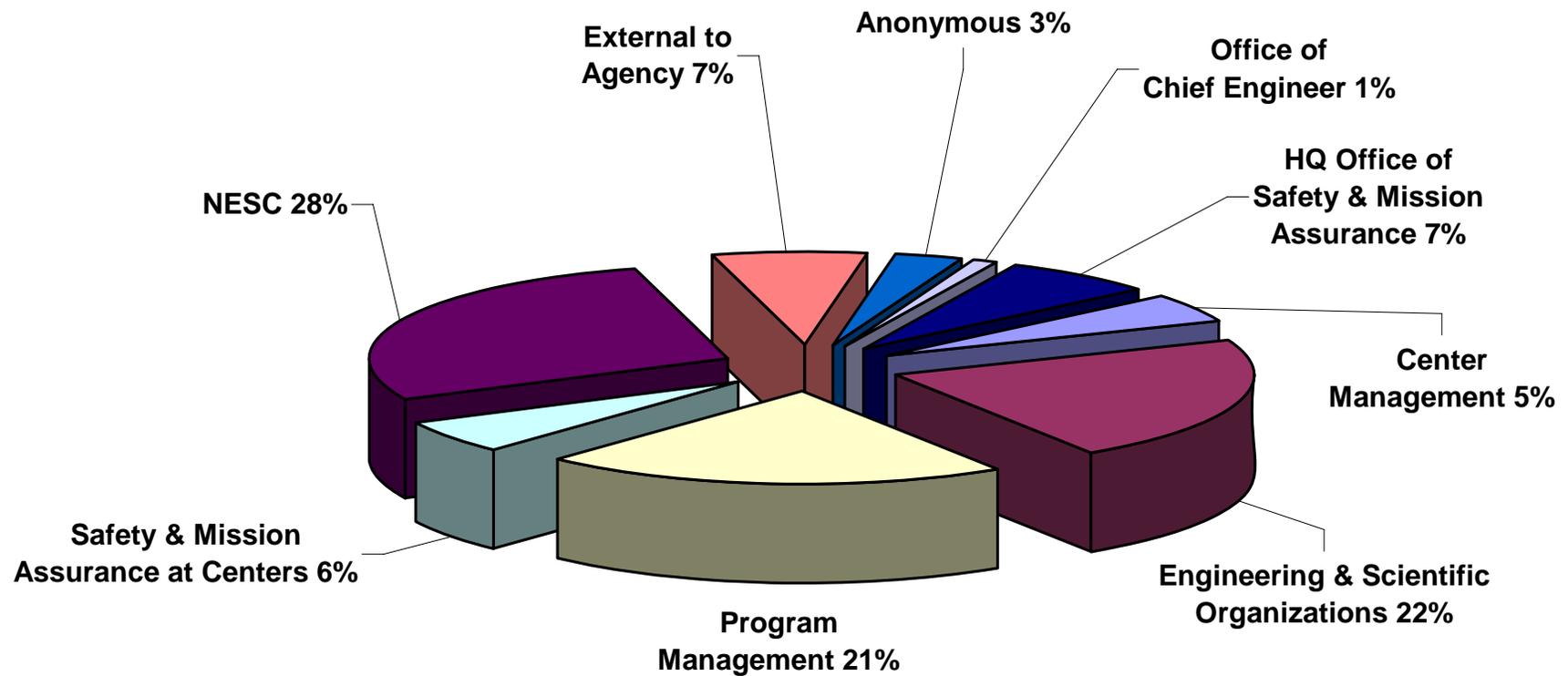
National Transportation Safety Board





REQUEST METRICS (Continued)

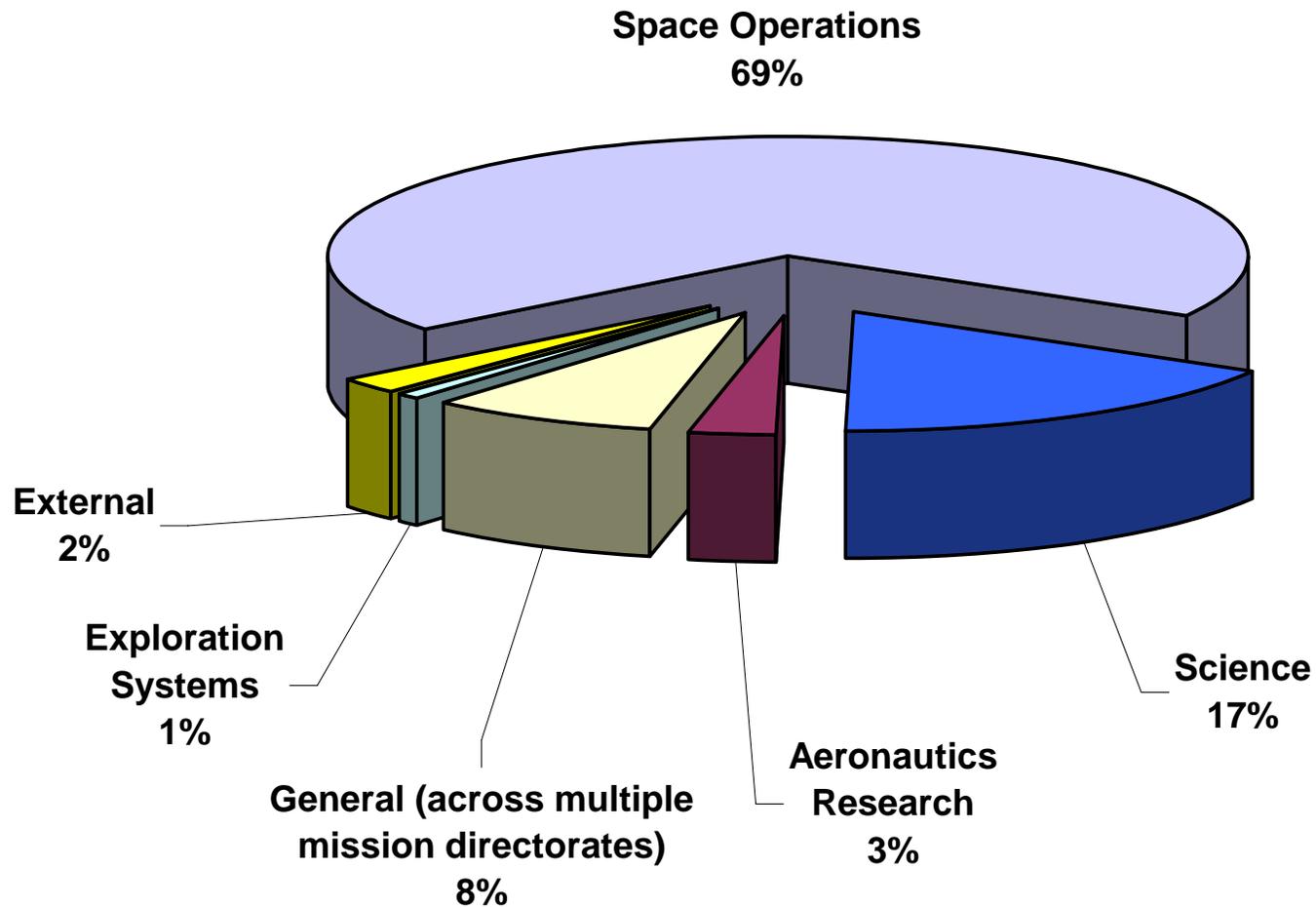
Sources of Accepted Requests-as of October 2005



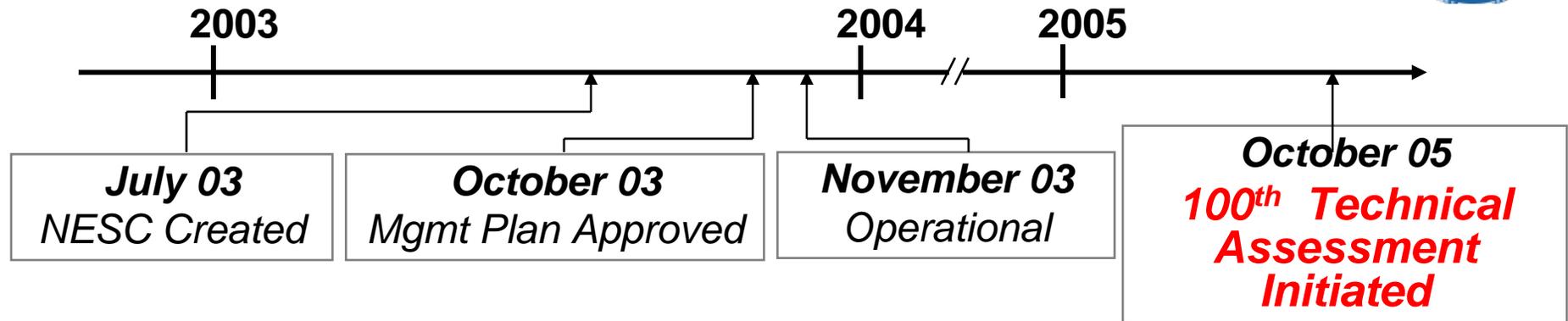
REQUEST METRICS



Accepted Requests by Mission Directorate -as of October 2005



How is the NESC doing?



Initial NESC Leadership Team, Nov 2003

SUMMARY



- The NESC is successfully meeting the challenging goals for which it was created
 - The NESC’s strong technical team is being used as an Agency-wide resource
 - The NESC is an Agency investment in technical excellence and safety
 - The NESC has demonstrated true “value added” with tangible returns on investment
- Every Center has provided outstanding technical expertise that has allowed the NESC to be successful
- The NESC will proactively contribute to the Vision for Space Exploration



The Next Steps in Space Exploration

