NASA's Exploration Work Assignments
Langley Research Center

NASA is embarking on a grand challenge of space exploration that can only be achieved by effectively implementing and aligning work for the Vision for Space Exploration. This challenge requires a balanced workforce skill mix and productive NASA centers. NASA is distributing work assignments to the centers to ensure that the agency can begin to meet the challenges of exploration while maintaining ten healthy and productive centers.

The Langley Research Center in Hampton Roads, Va., one of NASA's premier aeronautics research centers, has been given the responsibility as lead to manage the contractor work package for the Crew Exploration Vehicle's launch abort system integration, with prime contractor oversight and independent analysis. Additionally, Langley will have responsibility for:

- Flight test and pathfinder articles production for command module, launch abort system and separation rings
- Lead the command module Landing System Advanced Development Project
- Support the Thermal Protection System Advanced Development Project
- Provide aero/aerothermal; guidance, navigation and control, avionics software; and displays & controls support
- Provide independent analysis and systems engineering and integration support
- Exploration Space Research Technology program

Langley also was given lead responsibilities for the Crew Launch Vehicle including:

- Aerodynamic characterization of integrated launch vehicle stack, aerodynamic database development, and aeroelasticity test and analysis
- Vehicle integration activities for the advanced development flight test-0. Crew Exploration Vehicle's module development for the flight test
- Support structural design and analysis, guidance, navigation, and control development, flight mechanics, and trajectory analyses
- Provide systems engineering support
- Support upper stage design, development, testing, and evaluation

Level II or project tasks include:

- Safety Reliability & Quality Assurance (SR&QA) - Support for integrated hazard analysis, probability risk assessment; represent SR&QA at assigned systems integration groups.
- Systems Engineering and Integration - Structures systems integration group co-lead and technical performance measurement lead**;** support to requirements, interface, analysis & trades and process & tools offices; support to software & avionics, and flight performance systems integration groups.
- Testing and Verification (T&V) - T&V flight test and performance planning; support integrated loads, structures & mechanics; command, control, communication, and information T&V; avionics software T&V systems integration groups; and flight test planning support
- Advanced Projects Office - Support architecture refinement and conceptual design of future elements