

NASA Advisory Council Recommendation

Unmanned Aircraft Systems in the National Airspace System Project Demonstration Mission 2013-01-02 (AC-01)

Recommendation:

The NASA Unmanned Aircraft Systems (UAS) in the National Airspace System (NAS) Project plans as part of their next phase of research a variety of flight tests to validate concepts developed as part of their research. The Council recommends that in addition to these flight tests, one or more “capstone” demonstrations be incorporated into the program plan. These “graduation exercises” should serve to pull together and focus multiple research threads, and provide a compelling test or demonstration that the program’s various stakeholder will find compelling and convincing. The Council encourages NASA to continue working with the UAS Subcommittee in the development of such a capstone demonstration.

Major Reasons for Proposing the Recommendation:

The Council is concerned that sufficient impact is made as a result of the project’s research. These capstone demonstrations would find their way onto the integrated master plan, and would ideally involve both NASA and outside participants, demonstrating the access barriers broken down as a result of the NASA research.

Consequences of No Action on the Proposed Recommendation:

Absent compelling capstone events, the various research elements may never achieve the desired synergy.

NASA Response:

NASA concurs with the recommendation. The UAS Integration in the NAS Project is in the process of designing the Capstone Demonstration to be flown during Phase 2 of the project. This will most likely occur during FY16. The project presented a summary of progress to date to the NAC Aeronautics Committee’s UAS Subcommittee during a briefing at NASA Headquarters on May 21, 2013. The briefing included specific objectives, success criteria, and resource requirements. In addition, the project presented three candidate Capstone Demonstration scenarios and an assessment of the three candidates against specific phases of flight. An important topic during the Capstone Demonstration discussion was related to whether the Demonstration should be flown in restricted airspace or in the National Airspace System. This is a key question to be answered that affects the pathway forward to get approval to actually fly the Demonstration and will be addressed as we continue to evaluate each of the various scenarios. The project will look at a variety of pros and cons for each scenario, including high-level evaluation of objective satisfaction, cost, benefit, and risk. The project will follow up with a briefing to the Subcommittee currently scheduled for mid-July 2013 with a definitive proposal to the Subcommittee.

Enclosure