ASTM International Committee F38 on UASs to Address New Standards Aimed at Assisting in UAS Flight Applications in November Meeting

When: 13 & 14 November 2006 (open to any interested party)
Where: Hyatt Regency Atlanta / Atlanta, Georgia USA
What: ASTM International F38 Meeting on Unmanned Aircraft Systems
Subjects: *S&A, Terminology, Launchers, VRF Practices, Commercial Pilot Practices, Manufacturing QA Practice*

Since 2003, F38 has clearly outlined its strategy by providing industry with the only existing gap analysis. It demonstrates current and proposed information of assistance in helping UASs gain access to the NAS (See "F38 Roadmap for Strategic Standardization" at www.astm.org/uav.htm). Subsets of needed information were prioritized along the way; some are now coming to fruition – it is a critical time for industry input to shape them.

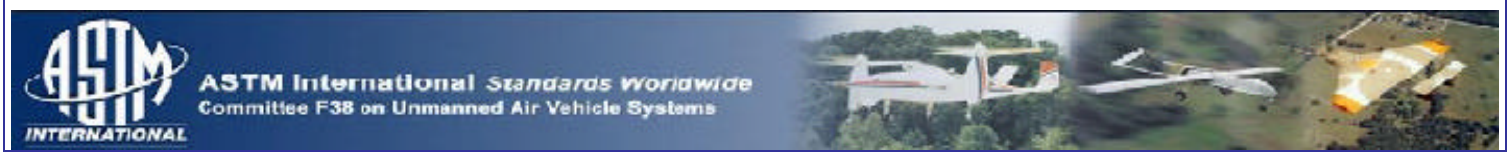
One subset is a trio of interrelated draft standards in development that may help alleviate safety concerns for small UAS operators. With these documents, it has been considered that a UAS organization could potentially register the aircraft, train the pilots (through a network of instructors), and monitor the operators. To that end, this trio emphasizes those areas a training school needs to incorporate in a syllabus and course of instruction, an operator needs to incorporate into his business aviation operations manual, and the documentation needed to insure safe, airworthy flights. In this way, F38 is trying to empower the creation of a specific process for successful submissions to FAA for approvals.

This trio includes (1) WK5673 *Standard Guide for Mini-UAS Airworthiness,* (2) WK5466 *Standard Practice for Unmanned Aircraft System (UAS) Visual Range Flight Operations,* and (3) WK8962 *Standard Practice for Remote Control Pilots operating within Visual Range* – and works in conjunction with approved standard F2501-06 *Standard Practices for Unmanned Aircraft System Airworthiness*.

Details on meeting items follow; all items are completed drafts, are in balloting, and will be open for discussion (and could be approved standards subsequent to the meeting):

(I) Revision to F2411 *Standard Specification for the Design and Performance an Airborne Sense-and-Avoid System*. This revision to F2411 will add classes of S&A systems and updates to terminology.

(II) WK 8689 *Standard Specification for the Design and Performance of Pneumatic - Hydraulic UAS Launch System*. This proposed, new standard provides the essentials for the design and performance of UAS launch systems operating via a closed-loop pressurized hydraulic and/or pneumatic system with a hydraulic recovery.



(III) F2395 *Standard Terminology for Unmanned Aircraft Systems.* The current revision contains additional terms recommended by the membership and a classification schema for UAS.

(IV) WK5466 *Standard Practice for Unmanned Aircraft System Visual Range Flight Operations.* This proposed, new standard prescribes guidelines that govern the visual flight operation of UASs in civil airspace in order to provide for the safe integration of unmanned aircraft flight operations with manned aircraft flight operations. It applies to those operations conducted for civil purposes other than sport or recreation that remain within the visual range of the pilot in command.

(V) WK8962 *Standard Practice for Remote Control within Visual Range, Pilots.* This proposed, new standard addresses the knowledge, skills, and abilities required of pilots who operate unmanned aircraft (UA) through a remote control (RC) interface and in operations that remain within visual range of the pilot. It primarily applies to mini UASs.

(VI) WK7066 *Standard Practice for Quality Assurance in the Manufacture of Light Airplane Unmanned Aircraft Systems.* This proposed, new standard has been updated, such a by refining phraseology and adding definitions (such as for POH).

(VII) WK5423 *Standard Taxonomy for Unmanned Aircraft Pilot Certification.* This proposed, new standard defines a set of definitions and categorization for the certification and licensing of Unmanned Aircraft (UA) pilots. It is designed for use by both industry and regulatory authorities applicable to UA across the entire size, weight and performance continuum.

(VIII) WK11174 *Commercial Unmanned Aircraft System Pilot Practical Test Standards for Unmanned Aircraft (SEL) Remote Control and Autonomous/Semi-Autonomous.* This standard addresses the knowledge, skills, and abilities required of pilots who pilot unmanned aircraft (UA) through a remote control (RC) and/or autonomous interface for compensation or hire. This standard does not apply to mini UASs.

ASTM International meetings are open to any interested party and are free of charge. For more information, see www.astm.org/uav.htm or contact Daniel Schultz at dschultz@astm.org / +1 610-832-9716. Please feel free to join F38, as they expand the approved documents in their UAS standards portfolio – currently with 5 approved standards and 16 drafts. Your input is needed and critical at this juncture.

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