Scaled Composites, LLC
Koehn Dry Lake, CA
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NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ATTACHMENT 6

Scaled Composites' SS2 Mishap Investigation Plan and Emergency Response Plan

8 Pages

SS2 Program
Mishap Investigation Plan
And
Emergency Response Plan

Ref:
FAR 431.45
FAR 437.41
FAR 437.75 (b)

January 13, 2012
Rev: NC

Concurrence:

Peter Siebold - Director of Flight Operations

Stuart Witt – CEO/GM, East Kern Airport District

Rich Fauble - Fire Chief, East Kern Airport District

This plan has been prepared in order to have a specific set of procedures in place in the event of an accident, incident or mishap involving the SS2 Vehicle during a powered mission which falls within the scope of FAR 431 and/or 437. It consists of two parts: a Mishap Investigation Plan (MIP) and an Emergency Response Plan (ERP). These documents also satisfy the intent of FAR 431.45, FAR 437.41, and FAR 437.75 (b).

In the event of a serious accident, the first concern is for the crew(s) of the affected vehicle(s). The second is to preserve the data and hardware in their configuration at the time of the accident, so that they may best be used in order to determine the cause or causal factors. This means that all computer files, paper cards or notes reflecting flight data, communications records, and vehicle debris must be impounded and strictly controlled as soon as possible after an accident.

Mishap Investigation Plan

In addition to any additional procedures developed to satisfy these requirements, we are obligated by FAR to complete the following reports as required below. The Mission Conductor is responsible for the completion of these tasks, and may delegate if required.

1) In the event of an accident or mishap that involves a serious injury or fatality (as defined in 49 CFR 830.2, attached for reference), immediately notify the FAA Washington Operations Center at 1-202-267-3333.
2) If the mishap does not involve a fatality or serious injury, notify the Associate Administrator for Commercial Space Transport (AST-1) AT 1-202-267-7848 within 24 hours after the mishap.
3) A written report shall be prepared and submitted to AST-1 within 5 days of the event that includes the following information:
    a) Date and time of occurrence
    b) Description of the event, and sequence of events leading to the accident or incident, to the extent known
    c) Intended and actual location of launch
    d) Identification of the vehicle
    e) Number and general description of any fatalities or injuries
    f) Property damage, if any, and estimate of its value
    g) Identification of any hazardous materials involved in the event
    h) Action taken by any person to contain the consequences of the event
    i) Weather conditions at the time of the event
    j) Potential consequences for other vehicles or systems of similar type or proposed operations
4) Ensure that the consequences of the accident or incident are contained and minimized
    a) Work with the incident commander of the Kern County Fire Department (KCFD), Hall Ambulance and law enforcement personnel (Kern County Sheriff Office (KCSO) and the California Highway Patrol (CHP) to preserve the vehicle and any debris, to minimize the damage to surrounding areas, and to preserve the accident scene to the greatest extent possible.

5) Ensure data and physical evidence are preserved
    a) Work with Scaled IT to properly archive computer files, and ensure that any other form of data and records are properly stored and backed up as appropriate. Write-protect and archive all video tapes.
6) The Scaled President will designate appropriate points of contact for the communication with FAA and NTSB if required.
7) The outcome of the investigation should be identification of preventative measures to be taken to avoid future recurrence of such an event.
8) An Accident Investigation Team (AIT) will be formed within Scaled to investigate the mishap. Depending on the severity or nature of the mishap, outside consultants may be engaged to assist in the investigation. The AIT will be led by the Scaled VP of Engineering. He will be responsible for collecting and assessing all relevant data, performing any required analyses of those data, reviewing videotapes and audio records, reviewing physical evidence, and conducting interviews of participants as required. Although not always possible, every attempt will be made to determine the root cause of the mishap. The AIT leader will communicate directly with the FAA-AST Project Engineer, or other FAA nominee, the results of the investigation on an ongoing basis as required. Any person working for the AIT leader in the conduct of the accident investigation will report directly to the AIT leader.

Emergency Response Plan

In the event of a mishap, either the Pilot in Command of the SS2, or the Scaled Mission Conductor shall initiate the appropriate agencies as soon as possible. Normally, the first notification shall be to the Mojave Control Tower operator, either via VHF communications, or via telephone, 661-824-4324. The tower controller will then notify Joshua Approach Control and East Kern Airport District (EKAD) Aerospace Rescue Fire Fighting (ARFF) team who will initiate an Alert 3 to the Emergency Communications Center (ECC). This will initiate a 3 Engine Company response with the (KCFD-Hall Ambulance/KCSO/CHP) response. The Mission Conductor shall provide all information available on the

1. Nature of the emergency
2. Location of the vehicle
3. Number of souls on board
4. Estimated amount of fuel or propellant on board
5. Any other pertinent information

The Airport Fire Chief (Rich Fauble) has on file MSDS's for all materials used in SpaceShipTwo, or will be provided with them as soon as possible after the mishap to aid in proper firefighting and debris management. The airport fire department will work with the Kern County Fire Department or other agencies as required.

Prior to the first flight of SS2, the airport ARFF crew was briefed on ingress, crew rescue, and materials onboard SpaceShipTwo.

The point of contact for media or any public dissemination of information is the VP of Shared Services, Trish Mills, 661-824-4541. She is responsible for any communication with the press

and, if necessitated by the nature of the mishap, ensuring public notification of any hazards caused by the mishap.

Telephone calls received by EKAD will be referred to Trish Mills at 661-824-4541.

Title 49: Transportation PART 830—NOTIFICATION AND REPORTING OF AIRCRAFT ACCIDENTS OR INCIDENTS AND OVERDUE AIRCRAFT, AND PRESERVATION OF AIRCRAFT WRECKAGE, MAIL, CARGO, AND RECORDS Subpart A—General

Serious injury means any injury which: (1) Requires hospitalization for more than 48 hours, commencing within 7 days from the date of the injury was received; (2) results in a fracture of any bone (except simple fractures of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Title 14: Aeronautics and Space
PART 431—LAUNCH AND REENTRY OF A REUSABLE LAUNCH VEHICLE (RLV)

§ 431.45 Mishap investigation plan and emergency response plan.

(a) *Mishap investigation plan and emergency response plan.* An applicant shall submit a mishap investigation plan (MIP) containing the applicant's procedures for reporting and responding to launch and reentry accidents, launch and reentry incidents, or other mishaps, as defined in §401.5 of this chapter, that occur during the conduct of an RLV mission. An acceptable MIP satisfies the requirements of paragraphs (b)–(d) of this section. An applicant shall also submit an emergency response plan (ERP) that contains procedures for informing the affected public of a planned RLV mission. An acceptable ERP satisfies the requirements of paragraph (e) of this section. The MIP and ERP shall be signed by an individual authorized to sign and certify the application in accordance with §413.7(c) of this chapter, the person responsible for the conduct of all licensed RLV mission activities designated under §431.33(b) of this subpart, and the safety official designated under §431.33(c) of this subpart.

(b) *Report requirements.* A MIP shall provide for—

(1) Immediate notification to the FAA Washington Operations Center in case of a launch or reentry accident, launch or reentry incident, or a mishap that involves a fatality or serious injury (as defined in 49 CFR 830.2);
(2) Notification within 24 hours to the Associate Administrator for Commercial Space Transportation in the event of a mishap that does not involve a fatality or serious injury, as defined in 49 CFR 830.2; and

(3) Submission of a written preliminary report to the FAA Associate Administrator for Commercial Space Transportation in the event of a launch accident or launch incident occurring in the conduct of an RLV mission, or reentry accident or reentry incident, occurring in the conduct of an RLV mission, within 5 days of the event. The report shall identify the event as either a launch or reentry accident or incident and must include the following information:

(i) Date and time of occurrence;

(ii) Description of the event and sequence of events leading to the accident or incident, to the extent known;

(iii) Intended and actual location of launch and reentry or other landing on Earth;

(iv) Identification of the vehicle;

(v) Identification of the payload, if applicable;

(vi) Number and general description of any fatalities and injuries;

(vii) Property damage, if any and an estimate of its value;

(viii) Identification of hazardous materials, as defined in §401.5 of this chapter, involved in the event, whether on the vehicle, payload, or on the ground;

(ix) Action taken by any person to contain the consequences of the event;

(x) Weather conditions at the time of the event; and

(xi) Potential consequences for other vehicles or systems of similar type and proposed operations.

(c) *Response plan.* A MIP must contain procedures to—

(1) Ensure the consequences of a launch accident, launch incident, reentry accident, reentry incident, or other mishap occurring in the conduct of an RLV mission are contained and minimized;

(2) Ensure data and physical evidence are preserved;

(3) Require the licensee to report and to cooperate with FAA and the National Transportation Safety Board investigations and designate one or more points of contact for the FAA or NTSB; and;

(4) Require the licensee to identify and adopt preventive measures for avoiding recurrence of the event.

(d) *Investigation plan.* A MIP shall contain—

((1) Procedures for investigating the cause of an event described in paragraph

(c)(1) of this section;

(2) Procedures for reporting investigation results to the FAA;

(3) Delineated responsibilities, including reporting responsibilities, for personnel assigned to conduct investigations and for any unrelated entities retained by the licensee to conduct or participate in investigations.

(e) *Emergency response plan.* An ERP shall provide for—

(1) Notification to local officials in the event of an off-site or unplanned landing so that vehicle recovery can be conducted safely and effectively and with minimal risk to public safety. The plan must provide for the quick dissemination of up to date information to the public, and for doing so in advance of reentry or other landing on Earth to the extent practicable; and

(2) A public information dissemination plan for informing the potentially affected public, in laymen's terms and in advance of a planned reentry, of the estimated date, time and landing location for the reentry activity.

Title 14: Aeronautics and Space
PART 437—EXPERIMENTAL PERMITS

§ 437.41 Mishap response plan.

An applicant must provide a mishap response plan that meets the requirements of §437.75(b).

§ 437.75 Mishap reporting, responding, and investigating.
A permittee must report, respond to, and investigate mishaps that occur during permitted activities, in accordance with this section.

(a) *Reporting requirements.* A permittee must—

(1) Immediately notify the FAA Washington Operations Center if there is a launch or reentry accident or incident or a mishap that involves a fatality or serious injury, as defined in 49 CFR 830.2;

(2) Notify within 24 hours the FAA's Office of Commercial Space Transportation if there is a mishap that does not involve a fatality or serious injury, as defined in 49 CFR 830.2; and

(3) Submit within 5 days of the event a written preliminary report to the FAA's Office of Commercial Space Transportation if there is a launch or reentry accident or incident during a permitted flight. The report must identify the event as a launch or reentry accident or incident, and must include:

(i) The date and time of occurrence,

(ii) A description of the event and sequence of events leading to the launch or reentry accident, or launch or reentry incident, to the extent known,

(iii) The intended and actual location of launch or reentry, including landing or impact on Earth,

(iv) A description of any payload,

(v) The number and general description of any fatalities and injuries,
(vi) Property damage, if any, and an estimate of its value,

(vii) A description of any hazardous materials involved in the event, whether on the reusable suborbital rocket or on the ground,

(viii) Action taken by any person to contain the consequences of the event, and

(ix) Weather conditions at the time of the event.

(b) *Response requirements.* A permittee must—

(1) Immediately—

(i) Ensure the consequences of a mishap are contained and minimized; and

(ii) Ensure data and physical evidence are preserved.

(2) Report to and cooperate with FAA and National Transportation Safety Board (NTSB) investigations and designate one or more points of contact for the FAA or NTSB; and

(3) Identify and adopt preventive measures for avoiding a recurrence of the event.

(c) *Investigation requirements.* A permittee must—

(1) Investigate the root cause of an event described in paragraph (a) of this section;

(2) Report investigation results to the FAA upon completion; and

(3) Identify responsibilities, including reporting responsibilities, for personnel assigned to conduct investigations and for any unrelated persons that the permittee retains to conduct or participate in investigations.