

(7) Provide data that verifies the risk elimination and mitigation measures resulting from the applicant's system safety analyses required by paragraph (c) of this section; and

(8) Provide flight trajectory analyses covering launch or ascent of the vehicle through orbital insertion and reentry or descent of the vehicle through landing, including its three-sigma dispersion.

[Docket No. FAA-1999-5535, 65 FR 56658, Sept. 19, 2000, as amended by Amdt. 431-2, 72 FR 17019, Apr. 6, 2007]

§ 431.37 Mission readiness.

(a) *Mission readiness requirements.* An applicant shall submit the following procedures for verifying mission readiness:

(1) Mission readiness review procedures that involve the applicant's vehicle safety operations personnel, and launch site and reentry site personnel involved in the mission. The procedures shall ensure a mission readiness review is conducted during which the designated individual responsible for the conduct of licensed activities under § 431.33(b) is provided with the following information to make a judgment as to mission readiness—

(i) Readiness of the RLV including safety-critical systems and payload for launch and reentry flight;

(ii) Readiness of the launch site, personnel, and safety-related launch property and launch services to be provided by the launch site;

(iii) Readiness of the reentry site, personnel, and safety-related property and services for reentry flight and vehicle recovery;

(iv) Readiness of vehicle safety operations personnel to support mission flight, including results of dress rehearsals and simulations conducted in accordance with paragraph (a)(4) of this section;

(v) Mission rules and constraints, including contingency abort plans and procedures, if any, as required under § 431.39;

(vi) Unresolved safety issues identified during the mission readiness review and plans for addressing them; and

(vii) Any additional safety information required by the individual des-

ignated under § 431.33(b) to determine launch and reentry readiness.

(2) Procedures that ensure mission constraints, rules, contingency abort and emergency abort procedures are listed and consolidated in a safety directive or notebook approved by the person designated by the applicant under § 431.33(b), the launch site operator, and the reentry site operator, if any;

(3) Procedures that ensure currency and consistency of licensee, launch site operator, and reentry site operator checklists;

(4) Dress rehearsal procedures that—

(i) Ensure crew readiness under nominal and non-nominal flight conditions;

(ii) Contain criteria for determining whether to dispense with or add one or more dress rehearsals; and

(iii) Verify currency and consistency of licensee, launch site operator, and reentry site operator checklists; and

(5) Procedures for ensuring the licensee's vehicle safety operations personnel adhere to crew rest rules of this part.

(b) [Reserved]

§ 431.39 Mission rules, procedures, contingency plans, and checklists.

(a) An applicant shall submit mission rules, procedures, checklists, emergency plans, and contingency abort plans, if any, that ensure safe conduct of mission operations during nominal and non-nominal vehicle flight.

(b) Mission rules, procedures, checklists, emergency plans, and contingency abort plans must be contained in a safety directive, notebook, or other compilation that is approved by the safety official designated under § 431.33(c) and concurred in by the launch site operator and reentry site operator, if any.

(c) Vehicle safety operations personnel must have current and consistent mission checklists.

§ 431.41 Communications plan.

(a) An applicant shall submit a plan providing vehicle safety operations personnel communications procedures during the mission. Procedures for effective issuance and communication of safety-critical information during the mission shall include hold/resume, go/