

§ 1214.811

Spacelab-payload mission management functions:

- (1) Analytical design of the mission.
 - (2) Generation of mission requirements and their documentation in the Payload Integration Plan (PIP).
 - (3) Provision of mission unique training and payload specialists (if appropriate).
 - (4) Physical integration of experiments into racks and/or onto pallets.
 - (5) Provision of payload unique software for use during ground processing, on orbit, or in POCC operations.
 - (6) Supporting operations.
 - (7) Assuring the mission is safe.
- (b) All physical integration (and de-integration) of payloads into racks and/or onto pallets will normally be performed at KSC by NASA. When the customer provides Spacelab elements, these physical integration activities may be done by the customer at a location chosen by the customer.
- (c) With the exception of the restrictions noted in paragraph (b) of this section, customers contracting for dedicated-Shuttle and dedicated-pallet flights may perform the Spacelab-payload mission management functions defined in paragraph (a) of this section. NASA will assist customers in the performance of these functions, if requested. Charges for this service will be based on estimated actual costs, or actual costs where appropriate, and will be in addition to the price for standard services.
- (d) For complete pallets or shared elements, NASA will normally perform the Spacelab-payload mission management functions listed in paragraph (a) of this section. Charges for this service will be based on estimated actual costs, or actual costs where appropriate, and will be in addition to the price for standard services.
- (e) Integration of payload entities mentioned in paragraphs (b)-(d) of this section with NAS-furnished Spacelab support systems and with the Shuttle shall be performed by NASA as a standard service for all payloads flown on customer-furnished Spacelab elements. Customers shall be available to participate as required by NASA in these levels of integration. Customer equipment shall be operated only to the extent necessary for interface verification.

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Customers requiring additional payload operation after delivery of the payload to NASA shall negotiate such operation as an optional service.

§ 1214.811 Reflight guarantee.

(a) During the second phase of STS operations, there is no additional reflight premium for those shared-flight Spacelab payloads which can be accommodated on a standard Shuttle launch to 160 nmi, 28.5° as defined in the Shuttle policy and all dedicated-flight Spacelab payloads.

(b) NASA and the customer may negotiate appropriate reflight provisions (e.g., scheduling, reflight premiums) for payloads not covered by paragraph (a) of this section. Otherwise, no reflight services shall be provided.

(c) Reflight guarantees, if provided, must cover the customer's entire payload.

(d) Payloads covered by reflight guarantees shall be entitled to a reflight with no charge for standard Spacelab and Shuttle services if both the following occur:

(1) Through no fault of the customer or defect in the customer's payload, Spacelab systems (i.e., data, power, and cooling) are not within nominal specifications, as measured by NASA at normal Spacelab monitoring points, at the time of first turn-on of the customer's payload, all as defined in the Launch Services Agreement.

(2) The customer's mission objective is not achieved solely as a direct result of the occurrence, at the time of first turn-on of the customer's payload, of events described in paragraph (d)(1) of this section.

(e) If more than one reflight is required, no additional reflight premium shall be charged.

(f) If a payload being reflown was not initially covered by a reflight guarantee, the reimbursements for the reflight shall be the same as for a newly-scheduled launch.

§ 1214.812 Payload specialists.

(a) The use of customer-furnished payload specialists shall be subject to the approval of the NASA Administrator or the Administrator's designee.

(b) Customers with payloads whose Shuttle load factor is equal to or greater than 0.5 are entitled to request that a customer-selected payload specialist be flown with the customer's payload. Dedicated-flight customers are entitled to request the flight of two customer-selected payload specialists.

(c) NASA may approve the flight of a customer-selected payload specialist with payloads whose Shuttle load factor is less than 0.5 if, in NASA's judgment, there is sufficient scientific need to warrant such a flight.

(d) The standard Spacelab flight price is based on operation of the customer's payload by two NASA-furnished mission specialists. Accommodations for, and mission-independent training of, any payload specialists and backups required for the customer's mission shall be provided as optional services and shall be paid for by the customer. The price for this service shall be the same for both customer-furnished and NASA-furnished payload specialists.

§ 1214.813 Computation of sharing and pricing parameters.

(a) *General.* (1) Computational procedures as contained in the following subparagraphs of this paragraph of this section shall be applied as indicated. The procedure for computing Shuttle load factor, charge factor, and flight price for Spacelab payloads replaces the procedure contained in the Shuttle policy.

(2) Shuttle charge factors as derived herein apply to the standard mission destination of 160 nmi altitude, 28.5° inclination. Customers shall reimburse NASA an optional services fee for flights to nonstandard destinations.

(3) The customer's total Shuttle charge factor shall be the sum of the Shuttle charge factors for the customer's individual (dedicated, complete, or shared) elements, with the limitation that the customer's Shuttle charge factor shall not exceed 1.0.

(4) Customers contracting for pallet-only payloads are entitled to locate minimal controls as agreed to by NASA in a pressurized area to be designated by NASA. There is no additional charge for this service.

(5) NASA shall, at its discretion, adjust up or down the load factors and load fractions calculated according to the procedures defined in this section. Adjustments shall be made for special space or weight requirements which include, but are not limited to:

(i) Sight clearances, orientation, or placement limits.

(ii) Clearances for movable payloads.

(iii) Unusual access clearance requirements.

(iv) Clearances extending beyond the bounds of the normal element envelope.

(v) Extraordinary shapes.

The adjusted values shall be used as the basis for computing charge factors and prorating services.

(b) *Definitions used in computations—*

(1) L_c =Chargeable payload length, m. The total length in the cargo bay occupied by the customer's experiment and the Spacelab element(s) used to carry it.

(2) W_c =The weight of the customer's payload and the customer's pro rata share of the weight of NASA mission-peculiar equipment carried to meet the customer's needs, kg.

(c) *Dedicated-shuttle spacelab flight (1-day mission).* The total reimbursement is as defined in § 1214.804(e)(3).

(d) *Dedicated-pallet flight (1-day mission).* (1) The Shuttle load factors and charge factors for dedicated-pallet flights are shown in table 1. Subject to other STS Spacelab structural limits, customers are entitled to utilize the payload weight capability of the pallets as indicated in table 1. Payload weights in excess of those shown are subject to NASA approval and may entail optional services charges.