

(14) NASA payload safety review.¹

(15) NASA support of payload design reviews.¹

(j) *Typical optional Spacelab services.* The following are typical optional Spacelab services:

(1) Use of special payload support equipment, e.g., instrument pointing system.

(2) Vandenberg Air Force Base (VAFB) launch.

(3) Nonstandard mission destination.

(4) Additional time on orbit.

(5) Mission-independent training, use of, and accommodations for all flight personnel in excess of five.

(6) Mission-dependent training of all NASA-furnished personnel and backups.

(7) Analytical and/or hands-on integration (and de-integration) of the customer's payload into racks and/or onto pallets.

(8) Unique integration or testing requirements.

(9) Additional resources beyond the customer's pro rata share.

(10) Additional experiment time or crew time beyond the customer's pro rata share.

(11) Special access to and/or operation of payloads.

(12) Customer unique requirements for; software development for the Command and Data Management Subsystem (CDMS) onboard computer, configuration of the Payload Operations Control Center (POCC), and/or CDMS utilized during KSC ground processing.

(13) Extravehicular Activity (EVA) services.

(14) Payload flight planning services.

(15) Transmission of Spacelab data contained in the STS OI telemetry link to a location other than a NASA-designated monitoring and control facility.

(16) Transmission of Spacelab data not contained in the STS OI telemetry link.

(17) Level III and/or Level II integration of customer-furnished Spacelab hardware.

(k) *Options.* The provisions of §§ 1214.102(e) and 1214.202(e) do not apply to Spacelab payloads.

§ 1214.805 Unforeseen customer delay.

Should an unforeseen customer payload problem pose a threat of delay to the Shuttle launch schedule or critical off-line activities, NASA shall, if requested by the customer, make all reasonable efforts to prevent a delay, contingent on the availability of facilities, equipment, and personnel. In requesting NASA to make such special efforts, the customer shall agree to reimburse NASA the estimated additional cost incurred.

§ 1214.806 Premature termination of Spacelab flights.

If a dedicated-Shuttle Spacelab flight, a dedicated-pallet flight, or dedicated-FMDM/MPRESS flight is prematurely terminated, NASA shall refund the optional services charges for planned, but unused, extra days on orbit. If a complete-pallet or shared-element flight is prematurely terminated, NASA shall refund a pro rata share of the charges for planned, but unused, extra days on orbit to customers whose payload operations are, in NASA's judgment, adversely affected by such premature termination. The basis for proration shall be the customers' Shuttle load factor.

§ 1214.807 Exceptional payloads.

Customers whose payloads qualify under the NASA Exceptional Program Selection Process shall reimburse NASA for Spacelab and Shuttle services on the basis indicated in the Shuttle policy.

§ 1214.808 Standby payloads.

The standby payload provisions of the Shuttle policy do not apply to Spacelab flights.

§ 1214.809 Short-term call-up and accelerated launch.

The short-term call-up and accelerated launch provisions of the Shuttle policy normally are not offered to Spacelab customers. NASA will negotiate any such customer requirements on an individual basis.

§ 1214.810 Integration of payloads.

(a) The customer shall bear the cost of performing the following typical

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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.