

SECTION 2. FLIGHT DISPATCH SYSTEMS AND DOMESTIC OPERATING RULES

1175. GENERAL. This section contains information and guidance to be used by inspectors concerning flight dispatch systems and operations conducted by Part 121 operators under domestic operating rules. The operational control system required by Part 121 for domestic and flag operations is commonly termed a dispatch system. Domestic and flag operators must use certified aircraft dispatchers to directly control flight operations. A pilot-in-command (PIC) may not initiate or continue a flight unless both the PIC and the aircraft dispatcher agree that the flight can be conducted safely *as planned* under the existing and forecast conditions. Once a flight is initiated, the aircraft dispatcher must continually monitor the flight's progress and inform the PIC of conditions that could affect the safe operation of that flight.

A. *Signature on a Dispatch Release.* The FAR's require that both the aircraft dispatcher and the PIC sign the dispatch release. The dispatcher's and PIC's signatures certify that, in the judgment of each, the flight can be made safely as planned. Some further guidance follows for inspectors to use regarding signatures on dispatch releases.

(1) The conditions under which a flight is dispatched may make it impractical for both the aircraft dispatcher and the PIC to sign on the same form. For example, the operator may maintain a centralized dispatch center and transmit dispatch releases to each point of departure rather than maintain individual dispatch facilities at each airport. Operators may establish procedures that comply with the intent of the rule, but accommodate the necessities of contemporary operations. One acceptable practice is for an aircraft dispatcher to sign a duty roster at the beginning of the dispatcher's shift, thus indicating the time the aircraft dispatcher came on duty and the desk or geographic area the dispatcher is working. The aircraft dispatcher's name and a date-time group printed on each dispatch release may be considered the aircraft dispatcher's signature in combination with the duty roster. Another acceptable practice is for the aircraft dispatcher to sign and retain for the record a copy of each dispatch release which is transmitted.

(2) Inspectors, operators, and aircraft dispatchers should be aware of the significance of an individual's signa-

ture under law, being that the individual who signs has consented to be bound by, and held responsible for, the act.

(3) An aircraft dispatcher may conduct an inflight re-release by recording the re-release message on oral tape or in writing. A system of appending the aircraft dispatcher's signature, such as that described in previous subparagraph (1), may be used. The PIC may accept an inflight re-release over a radio by reading back the dispatch release message, recording the message in writing (including the dispatcher's name), noting the date and time, and signing the entry. The preferred procedure is for the message to be copied on a designated master flightplan. These same procedures may be used for releases delivered over the telephone. The signed dispatch releases, duty rosters, and the master flightplan are company records that must be retained (see volume 3, chapter 11, section 3).

B. *Preflight Briefing.* Before dispatching any flight, an aircraft dispatcher must be thoroughly familiar with the reported weather conditions and the forecast weather conditions (including adverse weather) and the status of communications, navigation, and airport facilities. FAR's 121.601(a) and (b) require that the aircraft dispatcher provide the PIC with a preflight briefing on each of these items.

(1) The preflight briefing may be delivered verbally or in writing. In the latter case, communications facilities must be available for the aircraft dispatcher and the PIC to communicate directly by voice if direct communication is required or desired.

(2) The intent of FAR's 121.601(a) and (b) is that the aircraft dispatcher and the PIC have adequate and identical information for planning. The PIC and the aircraft dispatcher must be thoroughly familiar with, and consider all aspects of, the situation. For example, inoperative navigation aids and shortened runways as well as weather conditions can affect the selection of alternate airports. For this reason the briefing by the aircraft dispatcher is not optional for either the dispatcher or the PIC under these rules.

C. *Flight-Monitoring.* An aircraft dispatcher must monitor the progress of each flight under that dispatcher's control

until the flight has landed, passed beyond the dispatcher's area of control, or until the dispatcher is properly relieved by another aircraft dispatcher. Flight-monitoring, as a minimum, must consist of the monitoring of each flight's fuel state, flight time remaining, destination and alternate airport weather trends, en route winds and weather (including pilot reports), and the status of airport and navigational facilities.

(1) FAR 121.601(c) requires that the aircraft dispatcher report to the PIC any additional information that could affect the safety of the flight. This information may be delivered by voice message or by other means, such as air-ground passive communication systems (ACARS).

(2) FAR 121.99 requires that rapid and reliable two-way radio communications between each flight and the aircraft dispatcher be available at any point in the flight, including overwater portions of international flights. While the aircraft is over the conterminous U.S., this system must be independent of any system operated by the U.S. government.

D. *General Operations Manual (GOM)*. Inspectors must ensure that the operator's general operations manual (GOM) contains policies and procedures for releasing flights and subsequent inflight monitoring. FAR 121.137(a) requires that the manual or applicable parts be available to aircraft dispatchers during the performance of their duties. Inspectors must ensure that the operator's GOM includes the information that follows.

(1) The operator's GOM must contain flightcrew reporting requirements and the actions that aircraft dispatchers should take if reports from the flightcrew are not received.

(2) Once initiated, a flight must continue to destination as planned and in accordance with the conditions of the dispatch release. A PIC may not continue to destination, however, when in the opinion of either the PIC or the aircraft dispatcher, it is unsafe to do so. In such case, the PIC must take action to obtain the aircraft dispatcher's concurrence on a new course of action and then amend the dispatch release.

(3) ATC frequently delays, re-routes, or assigns altitudes to flights other than those planned by the operator. The ATC system requires this flexibility to re-route

traffic flow around adverse weather and to function effectively. The operator's policies and procedures for operational control should accommodate these demands while maintaining the duality of responsibility shared by the aircraft dispatcher and the PIC. One acceptable means operators may use to comply with the regulatory requirement is to publish notification requirements in the GOM for flightcrews to follow in these circumstances. For example, the operator might specify maximum amounts that the ETE, assigned altitude, estimated fuel remaining when overhead destination, and distance from planned course may deviate, without reporting to the aircraft dispatcher and obtaining an amended release (see paragraph 1187 of this section). The operator may also place remarks on the dispatch release to alert the PIC to the fact that a routing has been chosen for a specific reason and give instructions to contact the aircraft dispatcher if ATC needs to re-route the flight.

NOTE: FAR 121.557(a) authorizes the PIC to deviate from the conditions of the dispatch release to the extent necessary for safety in an emergency. When the PIC exercises this authority, FAR 121.557(c) requires that the PIC keep both ATC and the aircraft dispatcher fully informed of the progress of the flight. FAR 121.557(c) requires that when emergency authority is exercised, a written report be forwarded to the administrator (POD), through the director of operations, within 10 working days.

1177. FACILITIES AND STAFFING. FAR 121.107 and FAR 121.395 require that each domestic and flag operator provide enough dispatch centers and qualified aircraft dispatchers to ensure adequate operational control of each flight.

A. *Facilities.* FAR 121.107 requires that each domestic and flag operator provide enough dispatch centers for adequate control of the operations conducted.

(1) Operators have wide latitude in meeting this requirement. With modern communications, many operators exercise worldwide operational control from a single center. Any number and placement of centers is acceptable, provided the operator can show that organizational and communications arrangements are effective.

(2) Many operators have chosen to automate some dispatch duties and routines. A few operators have introduced a high degree of automation. Many functions which were previously performed manually by human beings are

now handled automatically by machine. For example, flight routes are automatically generated and flightplans are filed by computer. While these systems may be labor saving, they introduce special problems and specific hazards. POI's must ensure that the operator has designed adequate safeguards into the system. For example, the operator must be able to ensure that a flightplan with a routing identical to the one filed with ATC is delivered to the PIC.

B. *Staffing.* FAR 121.395 requires that operators provide enough qualified aircraft dispatchers to ensure the adequate operational control of all flights as follows.

(1) FAR 121.463(d) requires that each aircraft dispatcher be "familiar with all essential operating procedures for that segment of the operation over which he exercises dispatch jurisdiction." This requirement applies to all aircraft dispatchers the operator assigns to revenue flights (including the management personnel who occasionally work a position to relieve personnel), and to those aircraft dispatchers who trade assignments for personal reasons. Inspectors must ensure that operators have established a means of qualification to satisfy this rule. The rule also allows aircraft dispatchers to dispatch flights over segments on which they are not qualified after coordinating with a qualified aircraft dispatcher. Operators who use this provision must show that the supervising aircraft dispatcher has adequate time to oversee the aircraft dispatcher unfamiliar with the area without undue distraction from other assigned duties.

(2) Aircraft dispatchers commonly dispatch and monitor flights simultaneously. Inspectors must ensure that operators provide enough dispatch personnel to fully accomplish both tasks. POI's should ensure that the operator's dispatchers are not neglecting flight monitoring duties due to the pressure of their duties for originating flights.

(3) The time required for an aircraft dispatcher to prepare a dispatch release or to monitor the progress of a flight varies according to the geographical area the aircraft dispatcher is working, the complexity of the operation, and the degree to which the process is automated. An aircraft dispatcher employed by a small operator may do all of these tasks manually without assistance and may take several hours to dispatch a single flight. On the other

hand, an aircraft dispatcher for a major air carrier may be able to adequately dispatch a flight in a few minutes by using a computerized system.

(4) With all operators, workloads tend to be cyclical with peaks and valleys. Operators should continually monitor aircraft dispatcher workloads at peak periods to ensure that the dispatchers are not overloaded. One acceptable means of controlling routine workloads is for operators to assign aircraft dispatchers to specific geographical areas and to regulate the number of flights an aircraft dispatcher is scheduled to work in each hour and in each shift.

(5) The operator must have adequate contingency plans for dealing with foreseeable non-routine operations. For example, when a major storm system moves across an area and ATC central flow control begins re-routing traffic, an aircraft dispatcher's workload can increase to several times the routine level. One acceptable means of dealing with this problem is for the operator to add more aircraft dispatchers during periods of non-routine operations. The contingency plan may require the re-assignment of flight monitoring responsibilities to reduce the number of flights being handled by the affected aircraft dispatcher.

(6) Operators conducting "hub operations" have special problems complying with the combined requirements of FAR 121.107 or FAR 121.395, FAR 121.99, and FAR 121.601(c). For example, if weather conditions unexpectedly restrict operations or close a hub while flights are inbound, the operator must demonstrate the capability to communicate with, and effectively control, a large number of flights in a short period of time.

(7) POI'S shall ensure that operators using automated systems have published procedures for maintaining operational control after an unexpected loss of an automated system. These procedures should be published in the operator's GOM.

1179. AIRCRAFT DISPATCHER DUTY TIME LIMITATIONS. Inspectors must ensure that operators place the following limitations on aircraft dispatcher duty time, except in cases of circumstances or emergency conditions that are beyond the control of the operator in accordance with FAR 121.465(b)(3).

A. An aircraft dispatcher may not be scheduled for more

than 10 consecutive hours of duty.

B. When an aircraft dispatcher is scheduled for more than 10 hours of duty in 24 consecutive hours, a rest period of at least 8 hours must be provided at, or before, the end of 10 hours of duty.

C. Each aircraft dispatcher must be relieved of all duty for at least 24 consecutive hours during any 7 consecutive days or the equivalent thereof during any calendar month.

D. An aircraft dispatcher's shift must be scheduled to begin at a time that allows the dispatcher to become thoroughly familiar with existing and anticipated weather conditions along the route before dispatching any flight. The aircraft dispatcher must remain on duty until each flight under the aircraft dispatcher's control has either landed, or gone beyond the dispatcher's jurisdiction, or until the aircraft dispatcher is relieved by another qualified aircraft dispatcher. These requirements necessitate a change-over procedure between the oncoming aircraft dispatcher and the aircraft dispatcher being relieved.

E. A flag operator, when authorized by the POI and by the operator's OpSpecs, may schedule an aircraft dispatcher at a duty station outside of the 48 contiguous states or the District of Columbia for more than 10 consecutive hours of duty in a 24-hour period. The aircraft dispatcher must be relieved of all duties for at least 8 hours during each 24-hour period. POI's shall ensure that this provision is used to comply with local work customs and that it does not provide for less personnel than required to maintain adequate operational control.

1181. WEATHER REQUIREMENTS FOR DISPATCH UNDER DOMESTIC RULES. Inspectors must be informed about the weather requirements for the dispatch of domestic Part 121 flights (see section 4 of this chapter for a discussion of dispatch under flag rules).

A. *Dispatch Under VFR.* FAR 121.611 prohibits an aircraft dispatcher from releasing a domestic flight for VFR operations unless the ceiling and visibility en route and at the destination is VFR and will remain above applicable VFR minimums, until the aircraft arrives at the airport or airports specified in the dispatch release.

NOTE: Part 121 flights may not be dispatched under VFR rules unless they are specifically authorized by

paragraph B33(d) of the OpSpecs (see volume 3, section 4, paragraph 125).

B. *IFR Takeoff Weather Minimums.* An aircraft dispatcher may not release a flight when the weather at the departure point is reported to be less than the takeoff minimums specified in paragraph C56 of the operator's OpSpecs. The weather conditions may, however, be below the landing minimums specified in the operator's OpSpecs for the airport. In this case the aircraft dispatcher may not release the flight unless the following conditions exist:

(1) For a two-engine airplane, an alternate airport is available which is not more than 1 hour from the departure airport at normal cruising speed, in still air, with one engine inoperative.

(2) For an airplane with three or more engines, an alternate airport is available which is not more than 2 hours from the departure airport at normal cruising speed, in still air, with one engine inoperative.

(3) The alternate airport required by subparagraph (1) or subparagraph (2) is listed on the dispatch release.

(4) The weather conditions at the designated takeoff alternate at the estimated time of arrival (ETA) meet the requirements of paragraph C55 of the operator's OpSpecs.

C. *Destination Weather - IFR Operations.* FAR 121.613 prohibits an aircraft dispatcher from releasing a domestic flight under IFR or over-the-top rules unless weather reports and/or forecasts indicate that the weather will be at, or above, minimums required in the OpSpecs at the destination airport at the ETA. Category I minimums are given in OpSpecs paragraphs C53 and C54. Category II and III minimums are given in OpSpecs paragraphs C59 and C60 respectively.

D. *Alternate Weather.* FAR 121.619 prohibits an aircraft dispatcher from releasing a domestic flight under IFR or over-the-top rules unless at least one alternate airport is listed for each destination airport in the dispatch release and at which the weather exceeds the alternate airport requirements of the table in paragraph C55 of the OpSpecs. An alternate airport does not have to be designated, however, when for a least 1 hour before to 1 hour after the ETA, the appropriate weather reports or forecasts, or any combination thereof, indicate the following:

- The ceiling will be at least 2,000 feet above the airport elevation
- The visibility at that airport will be at least 3 miles (see FAR 121.619(a))

E. *Designation of Two Alternate Airports.* When weather conditions at the destination airport and the first alternate airport are marginal, FAR 121.619(a) requires that at least one additional alternate airport be designated. The term "marginal" as applied to domestic alternate minimums, is not defined by regulation. To some extent this is because the definition of what constitutes "marginal" depends on the nature of the weather phenomena, the operation conducted, and the equipment used. POI's should ensure that the definition of marginal and of the conditions under which a second alternate airport must be designated are clearly stated in the operator's GOM.

1183. FUEL SUPPLY - DOMESTIC OPERATIONS.

Inspectors need to be aware of the fuel requirements for dispatch under domestic rules (see section 4 of this chapter for fuel requirements in extended overwater operations). The fuel planning provisions of FAR 121.639 and FAR 121.647 apply to all domestic flights - whether turbojet-, turbopropeller-, or reciprocating-powered.

A. *Required Fuel Supply.* An operator may not dispatch a domestic flight, and a flight, may not take off unless, considering winds and forecast weather conditions, the flight carries all of the following increments of fuel:

(1) *En Route Fuel:* That fuel necessary for the flight to reach the airport to which it is dispatched and to conduct one instrument approach.

(2) *Alternate Fuel:* That fuel necessary for the flight to make a missed approach at the destination airport, fly from the destination to the most distant alternate airport, make an IFR approach (if available forecasts indicate conditions will be below VFR minimums), and to make a landing.

NOTE: POI's should ensure that operators use realistic routings between destination and alternate airports.

(3) *Domestic Reserve Fuel:* That increment of fuel necessary for a flight to continue for 45 minutes at normal

cruising fuel consumption.

(4) *Contingency Fuel:* That increment of fuel necessary for the flight to compensate for any known traffic delays and to compensate for any other condition that may delay the landing of the flight.

NOTE: The operator's GOM should contain policies and instructions to aircraft dispatchers and PIC's for computing the amount of contingency fuel to be carried under the circumstances likely to be encountered in the operator's specific operation.

NOTE: When computing fuel requirements, all fuel must be in addition to unusable fuel.

B. *Departure Fuel.* FAR 121.639 requires the fuel listed in previous subparagraph A be on board the aircraft at takeoff. The dispatch release must display this amount. The operator's GOM should contain a clear statement of this point for pilots, aircraft dispatchers, and load planners. An additional increment of fuel for start-up, taxi, and predeparture delays must be included in the fuel load on board the aircraft at engine start.

1185. ORIGINAL DISPATCH. A flight conducted under Part 121 domestic or flag rules may not depart from the point of origin unless a dispatch release contains specific authorization for the flight between specified points. The dispatch release may be for a single flight or for a series of flights with intermediate stops.

A. *Required Dispatch Release Elements.* Inspectors must ensure that operators require that dispatch releases be recorded in writing and contain at least the following information:

- Aircraft identification number
- Flight number
- Departure airport, intermediate stops, destination airports, and alternate airports
- The type of operation (IFR or VFR)
- Minimum fuel quantity required by regulation at the start of each takeoff (does not include taxi fuel)

B. *Required Dispatch Release Attachments.* The FAR's require that a dispatch release contain or have attached: available weather reports, weather forecasts (or a combination thereof) for the destination airport, intermediate stops, and alternate airports that are the latest available at the time the release is signed by the pilot.

(1) The term "available" reports includes pilot reports.

(2) Any additional weather reports or forecasts that the PIC or the aircraft dispatcher considers necessary or desirable must be included.

(3) The operator must establish procedures to ensure, when a flight has been dispatched but is unable to depart as scheduled, that the weather information is updated and is the latest available at the time of actual departure (takeoff). The operator may include procedures in the GOM to have the aircraft dispatcher forward to the flightcrew any new weather information which may be operationally significant as soon as practical after the aircraft departs.

(4) To ensure that the weather information is updated, the aircraft dispatcher must prepare a new dispatch when a flight takes off and then returns to the point of departure.

C. *Dispatch Release - Additional Information and Conditions.* While a dispatch release must contain the information specified in previous subparagraphs A and B, it is not limited to that information. Additional information and conditions should be placed on or attached to the release. For example, when an inflight re-release is planned, a statement to that effect should appear on the release. When a flight is planned under conditions which could limit the PIC's discretion, those conditions should be indicated. For example, when a flight can be legally and safely conducted over the most direct route between two points, but not over possible alternate routings that ATC might assign, that statement should be noted on the release. The FAR's require that the aircraft dispatcher report adverse weather to the PIC. FAR 121.687(b) authorizes this notification to be attached to the dispatch release. When an operator chooses this option, the operator should have a means for the PIC to assure that all attachments are in the PIC's possession. One acceptable means an operator may use to inform the PIC that

there are or are not attachments is to place a statement to this effect on the release.

D. *Dispatch Release Time Limits.* When an aircraft is released for a series of domestic flights, the aircraft may only remain on the ground for 1 hour at the intermediate stop. If the ground time exceeds 1 hour, a new dispatch release is required regardless of the scheduled ground time.

E. *Destination.* An aircraft dispatcher may designate any airport that is listed in paragraph C70 of the OpSpecs for the type of aircraft, as the destination for the purpose of the original dispatch. The distinctions between regular, alternate, refueling, and provisional airports have become operationally insignificant since deregulation. Until Part 119 is published, the terms will not be removed from Part 121 or the OpSpecs. When a flight is dispatched to or from a refueling, alternate, or provisional airport, the requirements applicable to dispatch from regular airports apply.

F. *Airports Not Listed in Paragraph C70 of the OpSpecs.* An aircraft dispatcher may not release a flight from an airport that is not listed in paragraph C70 of the OpSpecs, unless the following criteria are met:

(1) The airport and related facilities are adequate for the operation of the airplane.

(2) The operation is in compliance with the limitations of the flight manual and OpSpecs.

(3) The airplane has been dispatched according to those rules applicable to dispatch from an approved airport.

(4) The weather conditions for takeoff are equal to or exceed that prescribed in Part 97. Where minimums are not prescribed for the airport, one of the following is required: a ceiling of 800 feet and 2 miles visibility, a ceiling of 900 feet and 1 and 1/2 miles visibility, or a ceiling of 1,000 feet and 1 mile visibility.

1187. AMENDMENT OF A DISPATCH RELEASE. In the absence of an emergency, a flight may only proceed to the destination to which it was originally dispatched, and if the flight is unable to land at the original destination, it may only proceed to the designated alternate airport. FAR 121.631 allows, however, for a dispatch release to be amended while the flight is en route. An amendment may become necessary or desirable because the conditions under which

the flight was released have changed (unplanned re-release) or because it may have been planned before departure (a pre-planned, re-release).

A. Destination Weather Requirements While En Route. FAR 121.601(c) requires that aircraft dispatchers notify PIC's of any information on weather and facilities that may affect the safety of flight while flights are airborne. Part 121 does not prohibit a flight from continuing toward a destination which has gone below landing minimums or one which is forecast to be below landing minimums at the ETA by a forecast issued after the flight has departed. For example, there may be enough fuel on board to hold overhead the destination until the weather is forecast to improve. FAR 121.627(a) does, however, prohibit the PIC from continuing to the destination when, in the opinion of either the PIC or the aircraft dispatcher, it is unsafe to do so. POI's should ensure that the operator's GOM provides guidance to both PIC's and aircraft dispatchers for dealing with these circumstances.

B. Alternate Weather Requirements While En Route. FAR 121.631(b) prohibits the flight from continuing to a destination airport unless the weather conditions at the alternate airport (specified in the dispatch release) are forecast to be at or above the required alternate minimums at the ETA at the alternate airport.

(1) An alternate airport may be named which is below alternate minimums at the time of release, but which is forecast to be above minimums at the ETA. POI's should ensure that the operator's GOM contains specific procedures, however, for notifying the PIC and monitoring the weather at the alternate airport when the selected alternate airport is below minimums at departure. These procedures may require the designation of a second alternate airport or that contingency fuel must be carried on the flight.

(2) Conditions other than ceiling and visibility can affect minimums, such as navigational aids, runway lighting, and snow removal operations. Aircraft dispatchers must monitor these factors at designated alternate airports as well as ceiling and visibility.

(3) When weather conditions permit, many operators release flights without an alternate airport. In some instances while the flight is en route, the destination weather may deteriorate to below what was used to release

the flight and to the point that an alternate airport would have been required. The operator's GOM should contain direction and guidance to PIC's and aircraft dispatchers on how to manage such a situation.

(4) The dispatch release may be amended while the aircraft is en route to include any airport as an alternate that has the following:

- Authorization for that type of aircraft
- Is within the fuel range of the aircraft
- Alternate airport landing weather minimums

C. Requirements to Amend a Dispatch Release. FAR 121.631(c) requires that before a destination airport or an alternate airport may be changed, the following requirements must be met:

(1) The change must be jointly approved by the PIC and the aircraft dispatcher.

(2) The aircraft dispatcher must be thoroughly familiar with reported and forecast weather conditions (including adverse weather) and the status of communications, navigation, and airport facilities.

(3) The aircraft dispatcher must provide the information specified in previous subparagraph (2) to the PIC.

(4) The destination and alternate airports specified in the amended release must be forecast to be above the weather minimums required in the operator's OpSpecs for the destination and alternate airports, respectively, at the ETA.

(5) The aircraft must have sufficient fuel on board at the time and point that the release was amended to complete the flight in compliance with the applicable fuel requirements (see FAR's 121.593 through 121.661(n) and the aircraft performance requirements of FAR 121.173).

(6) The transmission of the redispach message must be recorded by the aircraft dispatcher, and its receipt must be recorded by the PIC.

D. Planned Re-Release. Planned re-release operations are

conducted to conserve fuel, to complete flights at ranges which would otherwise be beyond the aircraft's fuel capacity, and to solve weather-related operational problems. A Part 121 operator may only conduct planned re-dispatch in extended overwater operations when authorized by paragraph B44 of the operator's OpSpecs. Section 4 of this chapter contains a discussion of planned re-release procedures.

NOTE: Paragraph B44 of the OpSpecs does not apply to the amendment of flightplans for domestic operations.

1189. LOAD MANIFESTS. Before each flight, a load manifest must be completed as follows:

A. *Content of the Manifest.* A domestic operator must prepare a load manifest containing the following:

- Weight of the aircraft, fuel and oil, cargo, baggage, passengers, and crewmembers
- Maximum allowable weight at which the flight can comply with the requirements of both FAR 121.693(b)(i) and Subpart I of Part 121 (see volume 4, chapter 3)
- Actual weight at takeoff
- Evidence that the aircraft is loaded within weight and balance limitations

- Passenger names (unless this information is maintained by other means)

B. *Disposition of Flight Records.* The PIC must carry the following flight records to the destination airport. The operator must retain these flight records for at least 3 months. The POI must ensure that the operator's storage methods and location provide reasonable access for inspections. These flight records are as follows:

- Load manifest
- Dispatch release (including required attachments)
- Flightplan

1191. EN ROUTE TERRAIN CLEARANCE. Subpart I of Part 121 contains limitations on weights at which aircraft may be dispatched due to terrain clearance requirements. While these limitations apply to all types of aircraft operated under Part 121, they are particularly restrictive to two-engine aircraft operated in the western part of the U.S. Inspectors should be aware that to meet the limitations of Subpart I, operators may be required to limit takeoff weights or list en route alternate airports on the dispatch release (see volume 4, chapter 3).

1192. - 1202. RESERVED.

[PAGES 3-611 THROUGH 3-616 RESERVED]