

**VOLUME 3 GENERAL TECHNICAL ADMINISTRATION****CHAPTER 25 OPERATIONAL CONTROL FOR AIR CARRIERS****Section 4 Safety Assurance System: Part 121 Flag Operations, Supplemental Operations Outside the Contiguous States, and Extended Overwater Operations**

**3-1996 GENERAL.** This section contains information and guidance for principal operations inspectors (POI) and aviation safety inspectors (ASI) who have oversight responsibility of certificate holders conducting Title 14 of the Code of Federal Regulations (14 CFR) part 121 flag operations, supplemental operations outside the contiguous United States, and extended overwater operations. The following general provisions apply to extended overwater operations. This section is related to Safety Assurance System (SAS) Subsystems 3.1 Training & Qualification, 3.2 Flight Operations Engineering, and 3.3 Flight Planning and Monitoring.

**A. Instrument Flight Rules (IFR) and Visual Flight Rules (VFR) Authorizations.**

With limited exception, part 121 certificate holders must conduct extended overwater operations under IFR. Authorization to conduct extended overwater operations under VFR is limited to those allowed by Operations Specification (OpSpec) B051, Part 121 Visual Flight Rules Limitations and Provisions, which is narrow in its applicability.

**B. Land Airplanes.** A part 121 certificate holder may not operate a land airplane (except certain two-engine reciprocating-engine-powered airplanes listed in part 121, § 121.161(b)) in extended overwater operations unless the airplane is certified for ditching under 14 CFR part 25. When an aircraft is certified for extended overwater operations, these operations will appear as authorized operations in the limitations section of the approved Airplane Flight Manual (AFM).

**3-1997 DESTINATION WEATHER MINIMUMS.** Section 121.615(a) states the following: “No person may dispatch or release an aircraft for a flight that involves extended overwater operation unless appropriate weather reports or forecasts or any combination thereof, indicate that the weather conditions will be at or above the authorized minimums at the estimated time of arrival at any airport to which dispatched or released or to any required alternate airport.” This regulation has been interpreted by the Federal Aviation Administration’s (FAA) Office of the Chief Counsel (AGC) to mean that weather conditions must be forecasted to be above the required minimums at the estimated time of arrival (ETA), but that the weather conditions do not necessarily have to be above the required minimums at the time of dispatch or release.

**A. OpSpecs Requirements.** Weather minimums for departure, destination, and alternate airports minimums are prescribed in a certificate holder’s OpSpecs.

**B. Weather Forecasting for Extended Flight Operations.** Extended overwater operations may require flight times of 10 or more hours. Since the certainty of weather forecasts deteriorates as the period of the forecast lengthens, meteorologists usually add conditional phrases to the remarks of these forecasts to alert the users to this uncertainty. As a result of these conditional remarks, some certificate holders may find it difficult to dispatch or release to the desired destination and to find acceptable alternate airports. Aircraft dispatchers and persons

authorized to exercise operational control (flight followers) have a number of methods at their disposal, however, to overcome these limitations.

1) The installation of Category (CAT) II and CAT III approach aids have resulted in destination weather minimums as low as a ceiling of zero and a Runway Visual Range (RVR) of 300 feet. Modern facilities have also resulted in alternate weather minimums authorized by OpSpecs being reduced to as low as 400 feet and 1 mile.

2) Certificate holders may release a flight to an intermediate destination and then redispatch or rerelease the flight to the actual destination while the flight is en route. The redispatch or rerelease can be based on current weather reports and short-term forecasts.

3) Under an approved Enhanced Weather Information System (EWINS), a qualified aircraft dispatcher employed by a certificate holder may issue a flight movement forecast (FMF) based on a detailed analysis of the conditions surrounding the specific flight. An FMF may be used for operational control of the specific flight (see Volume 3, Chapter 26, Section 4).

### **3-1998 DESIGNATION OF DESTINATION ALTERNATE AIRPORTS.**

Sections 121.621 and 121.623 contain alternate requirements for flag and supplemental operations. In accordance with §§ 121.625 and 121.631, weather reports, forecasts or any combination thereof, must indicate that the weather conditions will be at or above the authorized minimums at the ETA at any required alternate airport.

**A. Destinations Without an Available Alternate Airport.** Sections 121.621(a)(2) and 121.623(b) provide a certificate holder with the ability to dispatch or release flag or supplemental flights to a destination for which no alternate is available. This provision was originally provided for reciprocating aircraft operations en route to island destinations. The introduction of turbojet aircraft has largely negated the need for the rule; however, there are still some remote islands (such as Easter Island) for which the provision is still necessary. Operations to an airport without an available alternate typically require authorization in a certificate holder's OpSpecs.

1) For flag operations, § 121.621(a)(2) requires a route to a destination without an available alternate to be approved. POIs will use OpSpec C067, Special Airplane Authorizations, Provisions, and Limitations for Certain Airports, to authorize a destination airport that does not have an available alternate. For the purposes of C067 authorization, the only portion of the route that is required is the destination airport.

2) For supplemental operations, § 121.623 does not require specific approval for a route to an airport without an available alternate. However, OpSpec C067 is specifically designed to list airports for which there is no available alternate. Therefore, certificate holders conducting supplemental operations should list these airports in C067 for increased flightcrew awareness.

3) For all part 121 operations, certificate holders must list the airports for which there is no available alternate, in their manual in accordance with the requirements of §§ 121.133 and 121.135.

4) Sections 121.641(b) and 121.643(c) require that turbopropeller and reciprocating-powered airplanes have enough fuel remaining upon arrival over the destination for the flight to continue for an additional 3 hours under normal cruise conditions.

5) Section 121.645(c) requires that turbojet-powered airplanes have enough fuel remaining upon arrival over the destination for the flight to continue for an additional 2 hours under normal cruise conditions.

**B. All Other Supplemental Operations.** Section 121.623 requires that certificate holders designate an alternate airport for all supplemental flights except for those conducted in accordance with § 121.623(b) and described in subparagraph 3-1998A.

**C. Flag Flights of 6 Hours or Less.** Section 121.621 permits certificate holders operating under flag rules to dispatch flights that are no longer than 6 hours in duration without designating an alternate airport. This is allowable if, for 1 hour before to 1 hour after the ETA, weather reports or forecasts, or any combination thereof, indicate the weather will be as follows:

1) The ceiling will be at least 1,500 feet above the lowest circling minimum descent altitude (MDA) if a circling approach is required and authorized for the airport, or

2) The ceiling will be at least 1,500 feet above the lowest published instrument approach minimum or 2,000 feet above the airport elevation, whichever is greater; and

3) The visibility at that airport will be at least 3 miles, or 2 miles more than the lowest applicable visibility minimums, whichever is greater, for the instrument approach procedures (IAP) to be used at the destination airport.

**D. Flag Flights of More Than 6 Hours.** Section 121.621(a) requires that certificate holders list an alternate airport for all flag flights of more than 6 hours' duration, except those operations described in subparagraph 3-1998A.

**E. Listing of Alternate Airports.** Sections 121.621 and 121.623 require that certificate holders list each required alternate airport on the dispatch or flight release.

**F. Weather Requirements for Designated Alternate Airports.** In accordance with § 121.625 weather reports and forecasts, or any combination thereof, must indicate that the weather will be at or above the minimums stated in the certificate holder's OpSpec C055, Alternate Airport IFR Weather Minimums, at the time the aircraft is due to arrive at the alternate airport.

**3-1999 REQUIRED FUEL SUPPLY—NONTURBINE AND TURBOPROPELLER-POWERED AIRPLANES.** Certificate holders conducting part 121 flag or supplemental operations with reciprocating or turbopropeller-powered airplanes, must comply with the fuel requirements of §§ 121.641 or 121.643 (as applicable to the kind of operation) and the requirements of § 121.647.

**A. Fuel Required—Flag and Supplemental Operations.** For flag and supplemental operations, the following fuel is required to be onboard the airplane at takeoff:

**1) En Route Fuel.** In accordance with §§ 121.641(a)(1) and 121.643(a)(1), each airplane must have enough fuel to fly to and land at the airport to which it was dispatched.

**2) Alternate Fuel.** In accordance with §§ 121.641(a)(2) and 121.643(a)(2), each airplane must have enough fuel to fly from the destination airport (after an initial or missed approach), to the most distant alternate airport specified in the dispatch or flight release, and land at that airport.

**3) Reserve Fuel—Flag Operations and Supplemental Operations Outside the Contiguous United States.**

a) International Reserve Fuel. In addition to the fuel required to fly to and land at the destination and alternate airports, §§ 121.641(a)(3) and 121.643(b) require the airplane to have enough fuel to fly for an additional 30 minutes.

b) En Route Reserve Fuel. In addition to the en route fuel, alternate fuel, and the 30 minute international reserve fuel, §§ 121.641(a)(3) and 121.643(b) require the airplane to have enough fuel to fly for 15 percent of the total time required to fly at normal cruising fuel consumption to the destination and alternate airports, or to fly for 90 minutes at normal cruising fuel consumption, whichever is less.

**4) Reserve Fuel—Supplemental Operations Within the Contiguous United States.**

a) Domestic Fuel Reserve. In accordance with § 121.643(a)(3), for supplemental operations conducted within the contiguous United States, in addition to the en route fuel and alternate fuel, the airplane must have enough fuel to fly for 45 minutes at normal cruising fuel consumption; or

b) Day VFR Operations with Nontransport Category Airplanes Type-Certificated (TC) after December 31, 1964. Each nontransport category airplane TC'd after December 31, 1964 that is operated by a certificate holder who is authorized in its OpSpecs to conduct day VFR operations must have enough fuel to fly for 30 minutes at normal cruising fuel consumption for day VFR operations.

**B. Required Contingency Fuel—All Part 121 Operations.** In addition to the fuel required by §§ 121.641 and 121.643 (as applicable), § 121.647 requires contingency fuel to be carried onboard the airplane to account for several scenarios. Contingency fuel is required to be onboard the airplane at any phase of flight during which it may be required. Required contingency fuel must be carried in addition to any unusable fuel. Section 121.647 requires the following:

- 1) Fuel to account for wind and other forecast weather conditions;
- 2) The fuel necessary to conduct one instrument approach and a possible missed approach.

- 3) Fuel for known or anticipated traffic delays; and
- 4) Fuel for any other conditions that may delay the landing of the aircraft.

NOTE: The certificate holder's General Operations Manual (GOM) should contain policies and instructions to aircraft dispatchers, flight followers, and pilots in command (PIC) for computing the appropriate amount of contingency fuel based on the circumstances likely to be encountered during flight (including taxi).

**C. Fuel Required for Flag or Supplemental Flights to Airports for which an Alternate Airport is Not Available within the Fuel Range of the Aircraft.** A nonturbine or turbopropeller-powered airplane dispatched or released to an airport for which an alternate airport is not available must have the following fuel onboard:

- 1) **En Route Fuel.** In accordance with §§ 121.641(b) and 121.643(c), the airplane must have enough fuel, considering wind and forecast weather conditions, to fly to the destination airport and thereafter to fly for 3 hours at normal cruising fuel consumption.
- 2) **Required Contingency Fuel.** The airplane must have fuel onboard to comply with the requirements of § 121.647.

**3-2000 REQUIRED FUEL SUPPLY—TURBOJET-POWERED AIRPLANES.** Certificate holders conducting part 121 flag and/or supplemental operations with turbojet-powered airplanes, outside of the contiguous United States, must comply with the fuel requirements of §§ 121.645 and 121.647.

**A. Fuel Required for Takeoff.** Unless otherwise authorized by deviation, § 121.645(b) requires each airplane to have the following fuel onboard at takeoff:

- 1) **En Route Fuel.** In accordance with § 121.645(b)(1), each airplane must have enough fuel to fly to and land at the airport to which it was released.
- 2) **Alternate Fuel.** In accordance with § 121.645(b)(3), each airplane must have enough fuel to fly from the destination airport (after an initial or missed approach), to the most distant alternate airport specified in the dispatch or flight release, and land at that airport.
- 3) **En Route Reserve.** In addition to the fuel required to fly to and land at the destination and alternate airports, § 121.645(b)(2) requires the airplane to have enough fuel to fly for a period of 10 percent of the total time required to fly from the airport of departure to the airport to which it was released and land at that airport.
- 4) **International Reserve Fuel.** In addition to the en route fuel, alternate fuel, and the 10 percent en route reserve fuel, § 121.645(b)(4) requires the airplane to have enough fuel to fly for 30 minutes at holding speed at 1,500 feet above the alternate airport, or the destination airport if no alternate is required by § 121.621(a)(2) or 121.623(b). International fuel reserves are computed under standard temperature conditions.

**B. Required Contingency Fuel.** In addition to the requirements of § 121.645, § 121.647 requires fuel to be carried onboard the airplane to account for several scenarios. Contingency fuel is required to be onboard the airplane at any phase of flight during which it may be required. Required contingency fuel must be carried in addition to any unusable fuel. Section 121.647 requires the following:

- 1) Fuel to account for wind and other forecast weather conditions;
- 2) The fuel necessary to conduct one instrument approach and a possible missed approach;
- 3) Fuel for known or anticipated traffic delays; and
- 4) Fuel for any other conditions that may delay the landing of the aircraft.

NOTE: The certificate holder's GOM should contain policies and instructions to aircraft dispatchers, flight followers, and PICs for computing the appropriate amount of contingency based on the circumstances likely to be encountered during flight (including taxi).

**C. Fuel Required for Flights for which an Alternate Airport is Not Available within the Fuel Range of the Aircraft.** In accordance with § 121.645(c), a turbojet-powered airplane that is released to an airport for which an alternate is not specified under § 121.621(a)(2) or § 121.623(b) must have the following fuel onboard:

1) **En Route Fuel.** The flight must have enough fuel onboard, considering wind and other weather conditions expected, to fly to the destination airport and thereafter to fly for at least two hours at normal cruising fuel consumption.

2) **Required Contingency Fuel.** The airplane must have fuel onboard to comply with the requirements of § 121.647.

**3-2001 SPECIAL FUEL RESERVES.** The FAA Administrator may grant a deviation from § 121.645(b)(2) to certificate holders conducting flag or supplemental operations. The FAA grants the deviation by issuing OpSpec B043, Special Fuel Reserves in International Operations. Inspectors reviewing flights dispatched or released under the provisions of OpSpec B043 should carefully review this paragraph, along with Volume 3, Chapter 18, Section 4, OpSpec B043. POIs should note the method by which, both the en route reserve fuel and the international reserve fuel is computed, along with the special limitations and provisions being imposed. Inspectors should also be aware that § 121.647 applies to all flights conducted under part 121, including those conducted under the provisions of OpSpec B043. For example, if anticipated traffic delays or other anticipated conditions are expected to result in an increase in the amount of fuel planned for the flight, an appropriate quantity of contingency fuel must be added.

**A. Computing En Route Reserve Fuel.** When a certificate holder dispatches or releases a flight under OpSpec B043, the required en route reserve fuel is not computed for the entire time required to fly from the departure point to the destination. The en route reserve fuel is only applied to that portion of the flight in which the aircraft's position cannot be determined once

each hour by a Class I International Civil Aviation Organization (ICAO) airways navigational facility. For example, a flight from New York to Frankfurt, Germany takes approximately 7 hours. The flight is conducted over airways by Class I station reference navigation from New York to the point at which the flight departs the standard service volume off the coast of northern Canada. The flight then proceeds by Class II navigation until again reaching the standard service volume of the Class I ICAO airways navigational facility serving the standard entry point of the European airways system. The flight then proceeds over airways by Class I station reference navigation to Frankfurt, Germany. The portion of the flight conducted by Class II navigation is approximately 3 hours.

**Table 3-103. Illustration of Operations Specification B043**

**Operational Analysis**

Fuel Increment	Part 121, § 121.645		OpSpec B043	
	Time	Pounds	Time	Pounds
En Route	7:00	126,000	7:00	124,000
En Route Reserve	:42	11,200	:18	4,800
Alternate	:10	2,700	:10	2,700
International Reserve	:30	10,000	:45	12,000
Required Fuel		149,900		143,500

1) Under § 121.645, 42 minutes of en route reserve fuel is required ([7 hours x 60 minutes = 420 minutes] x 10 percent = 42 minutes). For the 7-hour flight, the average fuel burn was 18,000 pounds per hour. At the end of the flight, however, the hourly fuel burn is 16,000 pounds per hour (42 minutes at 16,000 pounds per hour is 11,200 pounds [42/60 x 16,000]). The international reserve fuel is computed at 1,500 feet over the alternate. Since low-altitude holding results in relatively high fuel consumption, for the purpose of this illustration, 20,000 pounds per hour is used. (See Table 3-103, Illustration of Operations Specification B043.)

2) When the same flight is conducted under OpSpec B043, a somewhat smaller fuel load is required. Even though the time en route is equal for both flights, the lower takeoff weight of the OpSpec B043 flight results in a lower en route fuel burn. The en route reserve fuel is 18 minutes ([3 hours x 60 minutes = 180 minutes] x 10 percent = 18 minutes). At 16,000 pounds per hour, 18 minutes is 4,800 pounds [18/60 x 16,000]. The international reserve fuel for the OpSpec B043 flight is 45 minutes at normal cruising fuel consumption (for the weight and altitude at which the flight reaches the alternate); therefore, 45 minutes at 16,000 pounds per hour is 12,000 pounds.

**B. OpSpec B043 Special Limitations and Provisions.** POIs must ensure that certificate holders conducting operations under the OpSpec B043 authorization comply with each special limitation and provision contained in the OpSpec. POIs of part 121 certificate holders must also ensure that OpSpec B043 is not combined with OpSpec B044, Planned Redispach or Rerelease

En Route, since OpSpec B044 provides its own relief from the en route fuel reserves required by § 121.645(b)(2).

**3-2002 PLANNED REDISPATCH AND RERELEASE.** Section 121.631 permits the redispach of flights conducted under flag rules and the rerelease of flights conducted under supplemental rules. For the planned redispach and rerelease of long-range flights conducted under these rules, authorization is required. The means of providing such authorization is through the issuance of OpSpec B044.

NOTE: In accordance with part 121 flag and supplemental rules, the terms “dispatch,” “dispatched,” “redispach,” and “redispached” apply to flights operated under flag rules, while the terms “release,” “released,” “rerelease,” and “rereleased” apply to flights operating under supplemental rules.

**A. En Route Reserve Fuel.** All flights operating in accordance with flag and supplemental rules are required by regulation to carry an en route fuel supply in addition to that needed to get from the origin airport to the destination airport. Section 121.645(b)(2) through (4) requires the additional fuel supply to provide for an aircraft to fly to the most distant alternate airport, if required, and to hold for 30 minutes at holding speed, at 1,500 feet above the alternate airport (or destination airport if no alternate is required), and to fly for a period of “10 percent of the total time required to fly from the airport of departure to, and land at, the airport to which it was released.” The fuel requirement based on 10 percent of the total trip time is typically known as the “en route reserve fuel.” See Figure 3-108, En Route Fuel Reserves Required by § 121.645(b)(2) for Flight Planned on Straight Dispatch/Release.

1) Long-range flag and supplemental operations typically involve long flight times. The longer the flight time, the greater the opportunity for changes to the conditions en route. This type of changing environment is what necessitated the en route fuel reserves required by § 121.645(b)(2) to be based on total flight time, or a percentage thereof. The longer the flight time, the greater the amount of en route reserve fuel that is required. A flight that is 4 hours in duration would need 24 minutes of reserve fuel (10 percent of 4 hours), while a flight that is 8 hours in duration would need 48 minutes of reserve fuel (10 percent of 8 hours).

2) In most cases, the en route fuel reserve is not actually burned in flight. This fuel is on the aircraft to account for circumstances other than normal. Therefore, if no abnormal events occur, the aircraft will arrive with the en route fuel reserve still onboard. Since the en route fuel reserves are based on a percentage of total trip time, longer flights will arrive at the destination with more fuel than shorter flights due to the carriage of greater en route fuel reserves.

**Figure 3-108. En Route Fuel Reserves Required by § 121.645(b)(2) for Flight Planned on Straight Dispatch/Release**

From New York, USA (KJFK) to Rome, Italy (LIRF).

KJFK \_\_\_\_\_ (9 hours) \_\_\_\_\_ LIRF

- Total time en route from KJFK to LIRF is 9 hours. Ten percent of the total trip time is 54 minutes. (Approximately 18,000 pounds of fuel based on a fuel burn of 20,000 pounds/hour.)

**B. En Route Reserve Fuel Based on Redispatch/Rerelease.** Planned redispatch and rerelease, as authorized by OpSpec B044, allow the en route fuel reserve required by § 121.645(b)(2) to be based on the time it would take to get to an intermediate destination, which is known as the “initial destination.”

1) A flight that is conducted utilizing planned redispatch/rerelease is actually dispatched or released to the initial destination and is then redispatched or rereleased from a predetermined point along the route of flight, known as the “redispatch” or “rerelease point,” to the airport of intended landing (which is referred to as the “intended destination airport” in the OpSpec). The en route fuel reserves are then based on two time periods:

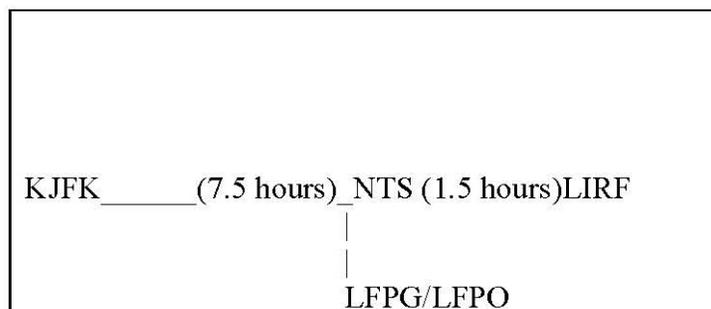
- The time it takes to get from the origin airport to the initial destination.
- The time it takes to get from the redispatch/rerelease point to the intended destination airport.

2) By breaking up the en route fuel reserves into two sections, based on the time periods above, the fuel needed to operate a flight utilizing planned redispatch/rerelease can be less than the fuel needed to operate a flight based on a straight dispatch or release from origin to destination. This is because a planned redispatch or rerelease assumes that the en route fuel reserves needed to get from the origin airport to the initial destination are not going to be used. Therefore, when the aircraft gets to the redispatch/rerelease point, which is typically just before or even abeam the initial destination, the unused en route reserve fuel can be used in the fuel calculation to complete the flight from the redispatch/rerelease point to the intended destination. See Figure 3-108A, En Route Fuel Reserves Required by § 121.645(b)(2) for Flight Planned Utilizing Planned Redispatch/Rerelease.

3) Since the total fuel required for the departure for an aircraft operating a flight utilizing redispatch/rerelease would be less than it would be if the flight were conducted without one, the takeoff gross weight of that aircraft will be reduced, which can also allow for additional payload to be carried.

**Figure 3-108A. En Route Fuel Reserves Required by § 121.645(b)(2) for Flight Planned Utilizing Planned Redispatch/Rerelease**

The flight is planned from KJFK to Paris, France (LFPG) with an Alternate of Orly (LFPO) and a redispatch/rerelease from point NTS, which is a waypoint along the flight planned route, to LIRF.



- Total time en route from KJFK to LFPG is 7.5 hours. Ten percent of the total trip time is 45 minutes. (Approximately 15,000 pounds of fuel based on a fuel burn of 20,000 pounds/hour.)
- Total time en route from the redispatch/rerelease point, NTS to LIRF, is 1.5 hours. Ten percent of this time is 9 minutes. (Approximately 3,000 pounds based on 20,000 pounds/hour fuel burn.)
- If the 10 percent en route fuel reserve needed to get to NTS is not used up until that point, it can then be used as the en route fuel reserve needed to get from NTS to the intended destination of LIRF. Based on this principle, a flight is able to reach its intended destination of LIRF by carrying only the en route fuel reserves required to get to LFPG.
- If at the point of redispatch/rerelease (NTS) the flight has burned some of the en route fuel reserves due to circumstances such as fuel over-burn, weather reroutes, or excessive vectoring by air traffic control (ATC), there may not be enough en route fuel reserves onboard to meet the minimum fuel requirements of the redispatch/rerelease. In this case, continuation to the intended destination may not be possible and the flight would then need to land at the initial destination airport or alternate airport.

**C. Fuel Requirements of Part 121.** Before a flight can be released from the departure point to the initial destination airport, all the fuel and weather requirements of part 121 subpart U and the performance requirements of part 121 subpart I must be met. Those same requirements have to be met for the redispach or rerelease from the planned redispach/rerelease point to the actual destination as well. The dispatch/release to the initial destination and the redispach/rerelease to the intended destination are treated as separate, individual flight segments. Each flight segment requires its own dispatch or flight release. All of the fuel and weather requirements of part 121 subpart U and the performance requirements of part 121 subpart I apply to both flight segments and, therefore, both releases. In addition, the fuel requirements of § 121.647 must also be considered when determining the required fuel for dispatch/release to the initial destination airport as well as for the redispach/rerelease to the intended destination airport.

#### **D. Flight Planning.**

**1) Process Steps.** In order to plan a redispach or rerelease, the following basic steps must be accomplished:

a) An initial destination and an alternate for that destination, if required by § 121.621 or § 121.623, must be selected. For flag operations, airports utilized as an initial or intended destination must be listed as a regular, provisional, or refueling airport in the certificate holder's OpSpec C070, Airports Authorized for Scheduled Operations.

b) A route of flight from origin to intended destination must be selected.

c) Then, a point along the route of flight that is common to the initial and intended destination airports must be selected as the point at which the redispach or rerelease will occur. This point is typically located closest to the initial destination.

**2) Additional Considerations.** Once the airports and route of flight have been selected, items such as weather along the route, Notices to Airmen (NOTAM), and the applicability of weather minimums from the origin airport to the initial destination airport and from the redispach/rerelease point to the intended destination airport must be considered.

#### **3) Performance Limitations.**

a) The flight must be planned so that the aircraft is not too heavy to land at the initial destination or alternate airports, or the intended destination or alternate airports, in accordance with the performance limitations contained in §§ 121.185, 121.187, 121.195, and 121.197, as applicable.

b) Circumstances may warrant an initial destination to be located at such a distance that the landing weight at that airport would be in excess of the weight set forth by these regulations, as well as the limitations set forth by the AFM, if the aircraft were to fly directly there and land. In order to prevent this condition, a redispach/rerelease point may have to be chosen at a distance that would allow an aircraft to fly far enough to be able to land at the initial destination within regulatory and AFM limitations. This means that in some cases, the redispach/rerelease point may have to be located at a point beyond the initial destination rather

than ahead or abeam of it to allow the aircraft to fly past the initial destination and burn enough fuel to ensure landing within regulatory and AFM limitations.

**E. Operational Reanalysis and the Redispatch/Rerelease Message.** Once the flight is en route, conditions such as weather, winds aloft, and fuel burn are reevaluated by a dispatcher for flights conducted under flag rules or by a person authorized to exercise operational control for flights conducted under supplemental rules. Specifically, OpSpec B044 requires that a new operational analysis must be conducted within 2 hours prior to the flight's arrival at the planned redispatch or rerelease point.

1) In preparing the new operational analysis, the dispatcher or person designated to exercise operational control (other than the PIC) must:

a) Conduct an updated fuel (operational) analysis based on the current route of flight, wind conditions, and aircraft weight, on the route from the planned redispatch or rerelease point to the intended destination airport, and any required alternate airports; and

b) Inform the PIC of the results of the updated operational fuel analysis and all current information concerning weather conditions, navigation and ground facilities, known air traffic delays, and services at the intended destination and alternate airports specified in the redispatch or rerelease, as required by § 121.601(c) for flag operations or § 121.603(b) for supplemental operations.

2) If the operation indicates that there is sufficient fuel onboard to complete the redispatch or rerelease to the intended destination, the dispatcher or person designated to exercise operational control (other than the PIC) must issue a dispatch or flight release from the planned redispatch or rerelease point to the intended destination airport.

3) While a flight is en route, the new dispatch or flight release is typically provided in a message, known as the redispatch or rerelease message, which is transmitted to the PIC either verbally by voice communication or via a messaging system, such as the Aircraft Communications Addressing and Reporting System (ACARS).

4) One of the conditions of OpSpec B044 requires the dispatcher or person authorized to exercise operational control to record the redispatch or rerelease by listing their name and the time of redispatch or rerelease in the redispatch/rerelease message. In other words, the record of the redispatch or rerelease is part of the release itself.

5) Once the PIC receives the message, he or she must review the information and determine if concurrence to continue to the intended destination airport is warranted. If the PIC determines that safe continuation can be made, he or she will specifically accept the planned redispatch or rerelease and proceed to the intended destination. OpSpec B044 requires that the PIC's decision be recorded as part of the redispatch or rerelease. OpSpec B044 also requires the redispatch/rerelease to be retained for at least 3 months in accordance with § 121.695 or § 121.697, as applicable. PICs often provide their concurrence to the dispatcher or person authorized to exercise operational control through ACARS. POIs must ensure that all of the

elements of the redispach or rerelease, as required by OpSpec B044, are retained by the certificate holder through their FAA-approved method of recordkeeping.

6) If the PIC or dispatcher determines that the current conditions do not allow for safe continuation to the intended destination, then the flight must land at the initial destination or alternate, as appropriate.

NOTE: It is important that POIs and certificate holders understand that a flight is not initially released to the intended destination airport. Subparagraph b2)a) of OpSpec B044 specifically states that the flight will be released to the initial destination. In order to continue to the intended destination airport, the flight will specifically have to be redispached or rereleased based on the operational reanalysis required by subparagraphs b(4) and b(5)(a)–(f) of OpSpec B044.

NOTE: Section 121.122 does not specify communication requirements for certificate holders conducting all-cargo supplemental operations. However, OpSpec B044 specifically requires communication between the PIC and the person authorized to exercise operational control. Therefore, a certificate holder conducting all-cargo supplemental operations must ensure that a two-way radio communications system or other means of communication approved by the FAA is available for all flights being conducted under the authorizations contained in OpSpec B044.

NOTE: Section 121.631(f) allows a destination or alternate airport to be changed as long the airport is authorized for that type of aircraft and all of the appropriate requirements of §§ 121.173 and 121.593 through 121.661 are met at the time of redispach/rerelease or amendment to the release. Therefore, if conditions do not allow for safe continuation to the intended destination, initial destination, and/or alternate, a flight can be redispached or rereleased to another airport as long as the requirements of § 121.631(f) and (g) are met.

**F. Loss of Communication.** In the event of a total loss of communication en route:

1) OpSpec B044 requires the PIC to follow the lost communications procedures, as outlined in the Aeronautical Information Manual (AIM), or the provisions specified in ICAO Annex 2, as applicable to the airspace in which communication is lost.

2) OpSpec B044 requires that the aircraft dispatcher or persons designated to exercise operational control follow the emergency procedures set forth in § 121.557(b) and (c) for flag operations, and § 121.559(b) and (c) for supplemental operations.

**G. Conditions and Limitations.** OpSpec B044 contains 11 specific conditions and limitations that must be complied with in order for a redispach or rerelease, as described in this section, to be safely accomplished in accordance with all applicable Federal aviation regulations. See the OpSpec B044 job aid contained in the Web-based Operations Safety System (WebOPSS) for detailed information regarding each condition and limitation. In addition, Volume 3, Chapter 18, Section 4, contains a list of each of the conditions and limitations, as well as information for POIs on how to issue OpSpec B044.

**H. Certificate Holder En Route Fuel Monitoring Procedures.** In accordance with OpSpec B044, POIs must ensure that the certificate holder develops en route fuel monitoring procedures for monitoring, analyzing, and responding to a fuel over-burn (when the actual fuel burn exceeds the fuel planned) during the en route phase of a flight. POIs should review the certificate holder's procedures and ensure that they contain at least the following:

**1) Policies and Procedures.** A certificate holder's policies and procedures for en route fuel monitoring should include at least the following:

- a) A description of the certificate holder's method of monitoring fuel for each flight operated in accordance with OpSpec B044 for the purpose of verifying the accuracy of flight plan fuel burn.
- b) The certificate holder's method of analyzing when actual fuel burn exceeds the fuel planned.
- c) A description of the actions the certificate holder will take in the event that the actual flight plan fuel burn is greater than that planned for a given flight.
- d) The certificate holder's definition and/or description of what is considered to be minimum fuel for the purpose of accepting a planned redispach or rerelease.
- e) A method of tracking flights that land at an airport other than the intended destination during redispach/rerelease operations.

**2) Responsibility and Authority.**

- a) POIs must ensure that certificate holders designate and document the persons with the responsibility and authority to implement, maintain, and improve the en route fuel monitoring process.
- b) Certificate holders are responsible for ensuring that the persons involved in the en route fuel monitoring process have the knowledge and skills to exercise their responsibilities.

**I. Training.** POIs must ensure that certificate holders conducting planned redispach/rerelease flight operations have information and instructions for flightcrew members, dispatchers (flag operations), or persons designated to exercise operational control (supplemental operations) regarding the use and application of OpSpec B044 contained in their FAA-approved training program. The training program should include instruction in at least the following areas:

- 1) Specific instruction on each of the conditions and limitations contained in OpSpec B044.
- 2) The certificate holder's flight planning system, including the method(s) of calculating/computing redispach/rerelease flight plans and operational reanalysis.
- 3) Selection of routes and initial destination and alternate airports.

4) Fuel planning, including minimum fuel requirements for initial dispatch/release and redispach/rerelease.

5) Criteria for determining minimum fuel for acceptance of redispach/rerelease.

**RESERVED.** Paragraphs 3-2003 through 3-2020.