VOLUME 3 GENERAL TECHNICAL ADMINISTRATION

CHAPTER 25 OPERATIONAL CONTROL FOR AIR CARRIERS

Section 1 General Topics

3-1921 BACKGROUND AND DEFINITIONS. This section contains background information, definitions of terms, and direction and guidance to be used by principal operations inspectors (POI) concerning operational control. POIs should be thoroughly familiar with this information before reviewing a certificate holder's operations manual. Operational control with respect to a flight means the exercise of authority over initiating, conducting, or terminating a flight (refer to Title 14 of the Code of Federal Regulations (14 CFR) part 1. The certificate holder's operational control system should include all of the elements of operational control such as crewmember and aircraft requirements, lease agreements, and management personnel and persons authorized to exercise operational control, etc. POIs should be thoroughly familiar with this material when preparing those portions of a certificate holder's operations specifications (OpSpecs) that relate to operational control (OpSpec A008).

A. Chapter Contents. This section contains general information on topics pertinent to the operational control of all air transportation operations conducted under 14 CFR parts 121 and 135. Section 2 contains information and guidance specifically related to part 121 dispatch systems and domestic operating rules. Section 3 contains information specifically related to part 121 flight release systems and supplemental operating rules. Section 4 contains information specifically related to part 121 flag operations, supplemental operations conducted outside the contiguous states, and extended overwater operations. Section 5 contains information specific to part 135 flight locating requirements, part 135, § 135.179, and operational rules.

B. Additional Guidance. Volume 3, Chapter 25, Sections 2, 3, and 4 contain specific regulatory requirements and guidance for part 121 operations. Volume 3, Chapter 25, Section 5 contains specific regulatory requirements and guidance for part 135 operations.

C. General Regulatory Requirements. Part 121, §§ 121.533, 121.535, and 121.537 require a certificate holder conducting part 121 operations to maintain and exercise operational control over all flights it conducts. Section 135.77 contains the same requirements for certificate holders who conduct part 135 operations. Certificate holders exercise operational control by making decisions and performing actions on a daily basis that are necessary for the safe conduct of flight operations. Operational control functions include, but are not limited to:

- Preflight planning.
- Preparation and dissemination of dispatch/flight releases.
- Issuing information relevant to the safety of flight such as weather, airport conditions, and Notices to Airmen (NOTAM).
- Monitoring the progress of each flight.
- Whether or not to continue a flight if unsafe conditions are present.
- Delaying a flight if it cannot be conducted safely.
- Canceling a flight due to potential hazardous or unsafe conditions.
- Aircraft scheduling.

- Crew scheduling.

D. Operational Control Systems. Operational control systems vary with the kind of operation the certificate holder is authorized to conduct (i.e., domestic, flag, supplemental, commuter, or on-demand). In descending order of precision and complexity, the three general operational control systems are flight dispatch, flight following, and flight locating. Each certificate holder must include policies and procedures appropriate to the system being used in its manual.

1) Dispatch Systems. Sections 121.533 and 121.535 require certificate holders who conduct domestic and flag operations to employ certificated aircraft dispatchers to exercise operational control of flights operated by the certificate holder.

2) Flight Following Systems. Section 121.537 places the major responsibility for the operational control of part 121 supplemental operations with the Director of Operations (DO) and the pilot in command (PIC). The DO may delegate the functions for initiation, continuation, diversion, and termination of a flight to other employees, however, the DO always retains full responsibility for these functions. The persons exercising operational control in a part 121 supplemental flight following system are often referred to as "flight followers." Aviation safety inspectors (ASI) should be aware that certificate holders may apply different job titles to these individuals.

3) Flight Locating Systems. Section 135.79 generally requires a certificate holder conducting part 135 operations to establish procedures for locating each flight and retaining flight locating information at the certificate holder's principal place of business or at other places designated by the certificate holder. Sections 135.23 and 135.77 require a certificate holder to list the name and title of each individual authorized to exercise operational control in the certificate holder's operations manual. A certificate holder conducting part 135 operations may delegate the authority to exercise operational control of a specific flight to the PIC, but the overall responsibility for operational control always rests with the certificate holder. If a flight plan is not filed with air traffic control (ATC), the certificate holder must be able to establish the location of the flight to provide timely notification to an FAA facility or search and rescue facility, if an aircraft is overdue or missing. The certificate holder's flight locating system must provide the certificate holder with the location, date, and estimated time for reestablishing communications, if a flight will operate in an area where communications cannot be maintained.

NOTE: The certificate holder's system for exercising operational control must be described in its OpSpec A008 (Operational Control). POIs may allow certificate holders to list the name and section of the manual that contains the description of the operational control systems in A008 in lieu of describing the system itself in the OpSpec. In such cases, POIs must ensure that the manual references listed in A008 remain current and that the sections of the manual referenced in A008 that describe the operational control system provide an accurate description of the system.

E. Specific Operational Control Functions. Operational control includes, but is not limited to, the certificate holder's performance of the following functions:

- Ensuring that only those operations authorized by the OpSpecs are conducted;
- Ensuring that only crewmembers who are trained and qualified in accordance with the applicable regulations are assigned to conduct a flight;
- Ensuring that crewmembers are in compliance with flight and duty time limitations and rest requirements prior to departing on a flight;
- Designating a PIC and, where applicable, a second in command (SIC) for each flight;
- Providing the personnel who perform operational control functions (PIC, dispatcher, etc.) with access to all necessary information for the safe conduct of the flight (for example, weather, NOTAMs, airport aeronautical data (analysis), and inoperable instruments and equipment);
- Specifying the conditions under which a flight may be dispatched or released (weather minimums, flight planning, airworthiness of aircraft, aircraft loading, and fuel requirements);
- Ensuring that each flight has complied with the authorization specified for release before it is allowed to depart;
- Ensuring that when the authorization specified for a flight's release cannot be met, the flight is either cancelled, delayed, rerouted, or diverted;
- Monitoring the progress of each flight and initiating timely actions when the flight cannot be completed as planned, including diverting or terminating a flight; and
- For part 121 operations, ensuring rapid and reliable communications in accordance with §§ 121.99 and 121.122, as applicable.

F. Certificate Holder's Manual. Sections 121.133 and 135.21 require certificate holders to prepare and keep current a manual for the guidance of flight, ground, and management personnel in the performance of their duties and responsibilities. The certificate holder's manual must identify the person that has overall responsibility for operational control and those persons to whom authority to exercise operational control has been delegated. The certificate holder's manual must contain policies and procedures regarding the operational control functions of flightcrews, dispatchers, and other persons authorized to exercise operational control. The procedures must include at least information on the operational control functions listed in paragraph 3-1921C.

NOTE: At no time should a person who is not authorized to exercise operational control attempt to exert any pressure or authority that would impede the duties of a person who is responsible for operational control. POIs will encourage certificate holders to establish policies and procedures that prevent this from occurring.

G. Organizational Structure. An operational control function may be centralized in one individual or diversified throughout an operator's organization. In practice, it is not feasible for an individual to exercise operational control without assistance in any but the simplest of flight operations. Most certificate holders create specialized departments for crew scheduling, load control, and other functions. These functions are typically placed under the management of the flight operations department. When these functions are delegated to specialized departments, the certificate holder is responsible for the following:

- Establishing a means to ensure that all functions have been accomplished before a flight is authorized to depart;
- Establishing effective internal communications, operating procedures, and administrative controls to meet this obligation; and
- Ensuring that these procedures are published in the certificate holder's operations manual.

1) Federal Aviation Administration (FAA) Evaluation. ASIs must evaluate each certificate holder's operational control system to ensure that the certificate holder complies with the applicable regulations, and that the system is effective and provides for an adequate level of safety in the operations being conducted.

2) Inadequate Operational Control. An ASI may find that a certificate holder's operational control system provides an inadequate level of control to ensure safety. In this case, the ASI should carefully document the facts and report them to the POI through the Air Transportation Oversight System (ATOS) for part 121 operations or through the Program Tracking and Reporting Subsystem (PTRS) for part 135 operations. The POI will evaluate the facts and, if required, negotiate an acceptable solution with the certificate holder, ensuring that the changes are incorporated. Should the certificate holder be unwilling to negotiate, the POI may find it necessary to amend the certificate holder's OpSpecs in accordance with 14 CFR part 119, § 119.51.

H. Services Provided by Contractors. Certificate holders may contract for certain equipment and facilities. Certificate holders conducting parts 121 and/or 135 operations cannot under any circumstances contract responsibility for operational control (§§ 121.533, 121.535, 121.537, and 135.77). Certificate holders conducting part 121 supplemental operations may arrange to have flight following facilities provided by persons other than its employees, in accordance with §121.125; however, all operational control responsibilities remain with the certificate holder at all times. If a POI elects to approve a part 121 supplemental certificate holder to use such a flight following facility, the POI and the certificate holder must describe its use in OpSpec A008. Certificate holders are always responsible for ensuring that the training and qualification of contract personnel meets all regulatory requirements, and that contract personnel are performing their duties in accordance with the certificate holder's policies and procedures. The certificate holder must also have an effective means of maintaining responsibility for the actions and/or inactions of contract personnel should they fail to comply with Federal regulations or the certificate holder's policies and procedures. All contract arrangements must be clearly and completely defined in the certificate holder's manual.

3-1922 AIRCRAFT DISPATCHERS. An aircraft dispatcher (referred to as simply "dispatcher" in this chapter) is an individual employed by a certificate holder in accordance with the requirements of §§ 121.107, 121.533, 121.537, and 121.595. Aircraft dispatchers are responsible for exercising operational control for certificate holders conducting part 121 domestic and flag operations and are required to hold an aircraft dispatcher airman certificate. Certificate holders conducting part 121 supplemental operations and part 135 operations are not required to use certificated aircraft dispatchers to exercise control; however, it's typical for a certificate holder conducting part 121 supplemental operations to maintain a dispatch center and employ certificated aircraft dispatchers.

3-1923 FLIGHT INFORMATION. Certificate holders must provide the information necessary to plan, conduct, and control flight operations. The information must be available to flightcrews, dispatchers, and other persons authorized to exercise operational control. Most of this information can be obtained through subscriptions to a government service or to a commercial aeronautical information and charting service. Certificate holders should be expected to supplement these services if necessary and, in all cases, are responsible for ensuring that the information used is accurate and complete. Certificate holders must also supply other data such as NOTAMs, track messages, and airport obstruction data, when applicable. The certificate holder must describe its system of obtaining and distributing airport aeronautical data in OpSpec A009 (Airport Aeronautical Data). The certificate holder's system must contain guidance and procedures by which flightcrew members, dispatchers, and operational control personnel can acquire and apply this information.

A. Airport and Facilities. The Airport/Facility Directory (A/FD) contains vital information on airports, seaplane bases, and heliports that cannot be readily depicted in graphic form. Certificate holders must make this information available to flightcrews, dispatchers, and operational control personnel.

1) Examples of what is contained in an A/FD include, but are not limited to:

- Types of Navigational Aids (NAVAID),
- Airport hours of operation,
- Communications,
- Weather sources,
- Type of airspace,
- Aircraft Rescue and Fire Fighting (ARFF),
- Types of available fuel,
- Runway bearing strength,
- Airport lighting, and
- Special notices and operational procedures.

2) ASIs should inform certificate holders that such information is removed from the NOTAM system when it is published in the A/FD. This information is obtained from the Aeronautical Information Publications (AIP) of the country for operations outside the United States. A/FDs are typically published in printed form, but may be accessed digitally at http://aeronav.faa.gov/index.asp?xml=aeronav/applications/d_afd.

B. NOTAMs. NOTAMs contain time-critical aeronautical information regarding temporary or unanticipated changes or hazards affecting communication, navigation, or airport facilities. NOTAMs include information such as:

- Airport or aerodrome closures.
- Runway, taxiway, and ramp closures.
- Temporary or permanent obstructions.
- Inoperative communication facilities.
- Inoperative or unmonitored NAVAIDs.

- Airspace restrictions and changes.
- Changes to, or inoperative satellite equipment.
- Radar service availability.

1) Information contained in NOTAMs can have a direct effect on decisions regarding the safety of flight. Certificate holders must have a method of providing NOTAMs to flightcrews, dispatchers, and operational control personnel for domestic and international operations in airspace covered by NOTAM systems.

2) U.S. NOTAMs are edited into final form and distributed by the United States NOTAM Office (USNOF). NOTAMs are disseminated by two methods: electronically through what is termed, "Service A," and in printed form through the biweekly publication, Notices to Airmen. In general, NOTAMs originally appear in electronic form and are later incorporated in the biweekly publication, which is available at http://www.faa.gov/air_traffic/publications/notices.

3) Additional information regarding the NOTAM system and the types of NOTAMs it issues can be found in the current editions of the following publications available at http://www.faa.gov/air_traffic/publications.

- Aeronautical Information Manual (AIM), Chapter 5, Section 1.
- Order JO 7930.2, Notices to Airmen (NOTAM), current edition.
- Advisory Circular (AC) 150/5200-28, Notices to Airmen (NOTAMs) for Airport Operators, current edition.

C. Oceanic Track Messages. Oceanic track messages contain the coordinates of routes in oceanic airspace such as those located in the North Atlantic and Pacific oceans. The North Atlantic Tracks (NAT) are published for the North Atlantic Organized Track System (NAT OTS (typically referred to as NAT Tracks)), and the Pacific Organized Track System (PACOTS) is published for the Pacific Ocean to connect the West Coast of the United States and Japan. Western Pacific and Northern Pacific Track NOTAMs are also available as international NOTAMs under the location identifiers of the respective air route traffic control center (ARTCC); examples are Oakland Center (KZOA) or Anchorage Center (PAZA). Flightcrews operating over these routes are required to have all current valid track coordinates available in the cockpit to verify flight plan coordinates should an in-flight rerouting become necessary. Dispatchers and other persons authorized to exercise operational control must have access to the appropriate oceanic track message for the preflight planning and en route phase of each flight operating in an organized track system (OTS). Information regarding current track messages can be accessed at http://aeronav.faa.gov/index.asp?xml=aeronav/applications/d_afd.

D. Aircraft Performance and Airport Obstacle Data. ASIs must ensure that certificate holders comply with the performance requirements of part 121 subpart I or part 135 subpart I, as applicable. Certificate holders operating transport category and commuter category airplanes must obtain and use airport obstacle data for takeoff performance calculations (refer to Volume 4, Chapter 3). Certificate holders must comply with en route obstacle clearance requirements, including contingency planning for engine failure. ASIs should refer to Volume 4, Chapter 3 for direction and guidance on aircraft performance requirements.

3-1924 WEATHER INFORMATION FOR CONTROL OF FLIGHT OPERATIONS. Refer to Volume 3, Chapter 26, Sections 1 through 4 for information regarding aviation weather information.

3-1925 FLIGHT PLANNING. ASIs must ensure that certificate holders conduct preflight planning that meets at least the following requirements:

- Adheres to the standards of navigational accuracy required in the airspace traversed,
- Meets regulatory fuel requirements,
- Satisfies ATC information and reporting requirements, and
- Ensures a safe operating environment.

NOTE: The degree of sophistication required in flight planning depends on the type of operations (e.g., domestic, international Extended Operations (ETOPS), redispatch/rerelease), navigation conducted, and airspace traversed.

A. Flight Plans. The term "flight plan" means a paper document or a file of electronic data prepared for purposes of flight planning, en route operation, and navigation. Flight planning consists of selecting an appropriate aircraft cruise schedule and applying forecast wind, temperature, and aircraft performance data to a planned route to predict estimated time en route (ETE) and estimated fuel consumption. The term "ATC flight plan" is used in this chapter to mean the subset of information extracted from the flight plan that is filed with ATC to obtain an ATC clearance.

B. Contents of a Flight Plan.

1) Method of Navigation—Class I. Class I Navigation is any en route flight operation that contains a route or a portion of a route that is conducted within the designated operational service volume of standard airway navigation facilities (VHF omni-directional range station (VOR), VHF omni-directional range station/distance measuring equipment (VOR/DME), Nondirectional Beacon (NDB)). Class I Navigation also includes:

- En route flight operations over routes designated with a minimum en route altitude (MEA) gap; and
- Operations within the service volume using pilotage or any other means of navigation that does not rely on the use of VOR, VOR/DME or NDB.

a) Flight plans based solely on Class I Navigation should include at least the following:

- Fix or intersection identifiers, segment distances, ETE for each segment, and an estimate of fuel consumption for each segment (A segment or zone is the distance between two waypoints); and
- A summation of distance, time, and fuel to show regulatory compliance.
- The dispatch/flight release may be attached to the flight plan.

2) Method of Navigation—Class II. Long-range Class II Navigation is navigation conducted beyond the operational service volume of standard International Civil Aviation Organization (ICAO) NAVAIDs. A flight plan containing a route or a portion of a route based on Class II Navigation should contain at least the following elements:

- Waypoints (fixes for the portion of the route conducted by Class I Navigation);
- The waypoint latitude and longitude coordinates and identifier/name if applicable
- The course leaving the waypoint (true course for polar operations);
- Forecast segment wind direction and speed an any associated drift or drift correction;
- Wind profiles for the route of flight based on the planned flight level and levels above and below.
- Forecast temperature (or temperature deviation) and true airspeed (TAS);
- Segment distances, estimated groundspeed (GS), and segment ETE;
- ETE for flight information region (FIR) boundaries;
- Estimate of fuel consumption for each segment;
- Indication of equal time points (ETP), if required for compliance with engine out fuel or oxygen requirements;
- A summation of distance, time, and fuel to indicate regulatory and ICAO compliance;
- A means of predicting clear air turbulence, such as the height of the tropopause, maximum wind level, temperature gradients, or shear index;
- For ETOPS, a display of the ETOPS critical fuel scenario (CFS) requirements, including distance, fuel and time to en route alternates, and the amount of additional fuel needed to accommodate the CFS;
- An ATC ICAO flight plan indicating the communication, navigation, and surveillance capabilities and airspace authorizations, including the filed route must be attached to the operational flight plan; and
- The dispatch/flight release may also be attached.

C. Computation and Verification. A flight plan may be calculated manually, but is most often computed by electronic means. In either case, ASIs must ensure that each certificate holder's manual contains specific policies, procedures, formats, and forms to be used for flight planning. POIs will verify that the certificate holder's policies and procedures contain a requirement for flightcrew members, dispatchers, and operational control personnel to verify the accuracy of its flight plans. Computer-generated flight plans can be subject to input errors. Use of a computed flight plan does not guarantee accuracy. Computer systems that contain internal software to check for errors in flight plans are desirable, but are still subject to error if the inputted data is incorrect. POIs will ensure that the certificate holder's manual contains adequate procedures for flightcrews, dispatchers, and operational control personnel to scrutinize all computer-generated and manually generated flight plans for accuracy.

D. Fuel Performance. Flight planning systems utilized by certificate holders must provide accurate fuel performance calculations. POIs must ensure that each certificate holder has

a method to substantiate the estimated fuel performance for any given flight. Substantiation of fuel performance may be as simple as comparing the planned arrival fuel with the actual arrival fuel to see if the actual fuel burned en route was correctly estimated in the flight plan calculation.

E. Part 121 Requirements. Each PIC conducting part 121 operations is required to carry the flight plan (along with other documents) to the destination in accordance with §§ 121.695(a) and 121.697(a). Certificate holders conducting part 121 operations are required to retain a copy of these documents for 3 months. Amendments recorded by the flightcrew become part of the documents and must be retained accordingly. Refer to paragraph 3-1928 for the part 121 requirement for the disposition of flight documents.

F. Part 135 Requirements. PICs of certificate holders conducting part 135 operations are not specifically required by regulation to carry a flight plan on all flights; however, POIs of part 135 certificate holders will ensure that each certificate holder's manual system contains procedures that accomplish the following:

- Inform the PIC of the required information to be contained in ATC flight plans that ensure compliance with 14 CFR part 91, § 91.169(a);
- Ensure compliance with § 135.209 or § 135.223 fuel supply requirements;
- Ensure compliance with §§ 135.181 and 135.211(b)(1) and applicable part 135 subpart I performance requirements;
- Ensure compliance with §§ 135.211 and 135.217 and § 135.221 alternate requirements; and
- Familiarize PICs with all available information required by § 91.103.

1) Load Manifests. Section 135.63(c) requires that a load manifest be kept onboard all multiengine aircraft flights. The load manifest must contain the following:

- Number of passengers;
- Total weight of the loaded aircraft;
- Maximum allowable takeoff weight for that flight;
- Center of gravity (CG) limits of the loaded aircraft;
- CG or an acceptable entry from an approved schedule;
- Flight or registration number;
- Origin and destination of flight; and
- Identification of all crewmembers and their position assignments.

2) Valid Track Coordinates. Flightcrews must carry the valid track coordinates in the cockpit during flights over organized and flexible track systems.

G. Navigation Methods and Flight Plans. ASIs should keep in mind that the primary concerns in choosing navigation methods and procedures are the degree of precision required for the separation of air traffic and obstacle avoidance. Detailed information regarding navigation classes and methods can be found in Volume 4, Chapter 1.

3-1926 SELECTION OF ALTERNATE AIRPORTS. A critical element of preflight planning is the selection of alternate, departure, en route, and destination airports. PICs,

dispatchers, and operational control personnel have a range of latitude to accommodate individual circumstances. Certificate holders must provide specific direction and guidance to PICs, dispatchers, and operational control personnel for the selection of takeoff, en route, and destination alternate airports.

NOTE: Additional information regarding the selection of alternate airports can be found in Volume 3, Chapter 25, Sections 3 through 5.

A. Terrain. Section 91.103 requires that PICs familiarize themselves with all available alternatives if the planned flight cannot be completed. Section 121.565(a) requires the PIC to land at the nearest suitable airport in case of an engine failure or shutdown. Section 121.565(b), however, does allow a PIC operating an airplane with three or more engines to proceed to an airport other than the nearest suitable airport when this course of action is as safe as landing at the nearest suitable airport. While these rules apply specifically to PICs, dispatchers and operational control personnel should be aware of and be guided by these requirements when selecting alternate airports. POIs will ensure that certificate holders and PICs take particular care in the selection of alternate airports in mountainous areas. POIs should ensure certificate holders maintain compliance with part 121 subpart I or part 135 subpart I (in normal and engine-out configurations) while en route to the alternate airport.

B. Weather, NAVAIDs, and Airport Conditions. Dispatchers, other persons authorized to exercise operational control, and PICs must be aware of the distance to the alternate, the effect of weather, inoperative NAVAIDs, and airport conditions when selecting alternate airports. For example, when the winds switch from easterly to strong westerly at Boseman, Montana, the alternate minimums increase from 600 feet and 1 and ½ miles to 1,200 feet and 3 and ½ miles (600/1 ½ to 1200/3 ½). Inoperative NAVAIDs, runway conditions, or runway closures can render an airport unacceptable as an alternate airport.

3-1927 LOAD CONTROL. Certificate holders must have a means of adequately planning payload and limiting it if necessary when hazardous weather and/or en route conditions dictate the need to carry additional fuel, or when restrictions posed by terrain, altitude, or inoperable instruments or equipment that require the aircraft be operated at restricted weights. The weight at which an aircraft can be released is limited by takeoff, en route terrain clearance, and landing performance limitations (refer to Volume 4, Chapter 3).

A. Loading Assumptions. Dispatchers and operational control personnel must take into account the estimated or actual payload when calculating (or computing) a flight plan. When working with an estimated payload, dispatchers and persons authorized to exercise operational control must be prepared to amend the flight plan and dispatch/flight release, as necessary, upon discovery of the actual payload when it varies significantly from that which was estimated. POIs must ensure that certificate holders provide guidelines on what constitutes a significant variance in payload to flightcrews, dispatchers, and persons authorized to exercise operational control. Some certificate holders actually include weight adjustments in specific decrements on a flight plan or Weight and Balance (W&B) document.

B. Manual Considerations. ASIs must ensure that the certificate holder’s manual system contains information and procedures for the computation and control of fuel loads,

payloads, takeoff weights, and aircraft CG. Each certificate holder's manual must clearly delineate the category of employee (e.g., dispatcher, load planner, etc.) making these computations. The certificate holder's manual(s) must contain adequate information and procedures for employees for performing these calculations, and methods to ensure that they are calculated accurately. Certificate holder manuals must also contain procedures for flightcrews, dispatchers, and other persons authorized to exercise operational control to ensure that all necessary calculations have been completed accurately before an aircraft departs.

3-1928 PART 121 REQUIREMENTS FOR DISPOSITION OF FLIGHT DOCUMENTS. In accordance with §§ 121.695 and 121.697, PICs conducting part 121 operations are required to carry certain flight documents in the airplane to its destination. Certificate holders are also required to retain these documents (or a copy) for at least 3 months. Some of these documents include, but are not limited to:

- A copy of the completed load manifest (or information from it).
- A copy of the dispatch or flight release.
- A copy of the flight plan.

NOTE: Principal inspectors (PI) should review the actual regulatory requirements of §§ 121.695 and 121.697 to refer to the full list of documents required for retention.

A. Amendments to a Dispatch or Flight Release. Any amendments to the dispatch or flight release recorded by the flightcrew, dispatcher, or person authorized to exercise operational control in accordance with § 121.631(g) are considered to be part of the release and as such are subject to the same disposition (retention) requirements as the original dispatch or flight release. Amendments to a release should include at least the following information:

- The reason for the amendment (for example, a change in altitude, route or airport, or addition/removal of a minimum equipment list (MEL);
- The conditions and limitations of the amendment (for example, those imposed by route, airport inoperative instruments or equipment);
- Information such as weather and NOTAMs if a new airport is being added;
- The name of the individual authorizing the amendment (for example, a dispatcher);
- The name of the person concurring to an amendment (for example, the PIC); and
- The date and time the amendment is effective.

NOTE: Certificate holders must have a method of retaining all recorded amendments to a dispatch or flight release as part of, or attached to, the original release. Section 121.631(g) does not specify the method in which an individual may record their amendment, and there is typically more than one way an amendment will be recorded.

1) Amendments Recorded in Writing. Many certificate holders utilize paper (hard) copies of dispatch or flight releases. Amendments transmitted and recorded by flightcrews, dispatchers, or persons authorized to exercise operational control will often be accomplished by

writing it down (pen and ink) on the actual dispatch or flight release. Certificate holders must have a method of retaining all hand-written, pen and ink amendments as part of the original dispatch or flight release in accordance with §§ 121.695 and 121.697 (as applicable the type of operation).

2) Amendments Recorded Electronically. Certificate holders whose flightcrews, dispatchers, and persons authorized to exercise operational control transmit and record their amendments electronically via Aircraft Communication Addressing and Reporting System (ACARS) must have a means of retaining the electronic recording as part of the original dispatch or flight release.

3) Amendments Recorded by Voice. Whether a certificate holder utilizes a paper or electronic copy of a dispatch or flight release, amendments are often made via voice communications on the ground or en route using high frequency (HF), very high frequency (VHF), and satellite communication (SATCOM). Section 121.711 requires a certificate holder to retain all en route radio (voice) communications between the certificate holder and his or her pilots for 30 days. However, in this case the requirement to retain the amendment as part of the dispatch or flight release takes precedence. Therefore, any amendments relayed and recorded by voice (whether on the ground or en route) must be retained with the dispatch or flight release for 3 months, in accordance with the requirements of §§ 121.695 and 121.697.

B. Signature on a Dispatch or Flight Release. Sections 121.597 and 121.663 require a signature on a dispatch or flight release by either the PIC or both the PIC and the dispatcher. These signatures are part of the dispatch or flight release and must be retained as such in accordance with the requirements of §§ 121.695 and 121.697, as applicable. Certificate holders must have a method to retain those signatures made by the PIC and the dispatcher (part 121 domestic and flag operations) to the dispatch or flight release.

C. Electronic Documents. Certificate holders who desire to electronically retain the documents required by §§ 121.695 and 121.697 must first obtain FAA approval. The FAA grants approval for electronic record retention through the issuance of OpSpec A025, Computerized Recordkeeping. Before approving electronic retention of dispatch or flight releases, POIs must first make sure that electronic retention includes a method to retain the electronic signatures of the PIC and dispatcher. Electronic retention of the dispatch or flight release must also include a means to retain all amendments issued and recorded in writing, electronically, and/or by voice. POIs must review information contained in the current edition of AC 120-78, Acceptance and Use of Electronic Signatures, Electronic Recordkeeping Systems, and Electronic Manuals, as well as all of the guidance documents associated with A025, located in the Web-based Operations Safety System (WebOPSS). POIs must review this information prior to approving a certificate holder to retain any record electronically.

3-1929 AIRWORTHINESS OF AIRCRAFT. Section 121.605 prohibits the dispatch or release of an aircraft unless it is Airworthy and has all required equipment installed, as prescribed in § 121.303. Sections 121.709 and 135.443 require that before an aircraft can be operated, it must have an airworthiness release (or appropriate logbook entry) and be signed by a properly authorized person. Information regarding compliance with the airworthiness requirements of 14 CFR can be found as follows:

- Compliance with § 121.303 can be found in Volume 10, Chapter 6, Section 3, Aircraft Configuration Control Document;
- Compliance with § 121.605 and the FAA-approved MEL requirements of § 121.628, can be found in Volume 4, Chapter 4, Section 1, Minimum Equipment Lists and Configuration Deviation Lists for Part 91K Program Managers, and Parts 121, 129, and 135 Certificate Holders; and
- Compliance with §§ 121.709 and 135.443 can be found in Volume 3, Chapter 43, Section 1, Evaluate a Part 121 and Part 135 Continuous Airworthiness Maintenance Program; and Volume 3, Chapter 43, Section 2, Evaluating the Required Inspection Element of a Continuous Airworthiness Maintenance Program.

3-1930 CREW QUALIFICATION AND CREW FLIGHT TIME LIMITATIONS AND REST REQUIREMENTS. Each certificate holder is responsible for assigning specific personnel to operate each flight, including the designation of a PIC. Flightcrew members and certificate holders are jointly responsible for ensuring that flightcrew members are qualified in accordance with the regulations (including special airport qualifications) and are in compliance with flightcrew member duty and rest requirements before the flight departs. Certificate holders may delegate these responsibilities to departments (e.g., crew scheduling) other than the flight operations department, but must establish procedures by which operational control personnel can verify that these requirements have been accomplished.

NOTE: Certificate holders should have policies in place addressing flight segment (typically referred to as leg) assignment and the division of flightcrew member duties during critical phases of flight when environmental conditions (cold weather operations, wind shear, thunderstorms, etc.) are marginal or severe. Special consideration should be given to line flying experience and background qualifications in determining when the PIC may delegate control of the aircraft and under what adverse weather conditions control of the aircraft should be accomplished by the PIC.

3-1931 CREW MEDICAL QUALIFICATION AND PROCEDURES DURING TEMPORARY MEDICAL DEFICIENCY.

A. Responsibility of Certificate Holders and Flightcrew Members. Title 14 CFR part 61, § 61.53 and 14 CFR part 63, § 63.19 preclude required flightcrew members from flight duty while they have a known medical or physical deficiency. These sections rely solely on the ability of flightcrew members to honestly determine their medical fitness. It is incumbent on individual airmen to be certain that they have no illness or physical impairment that would affect their medical fitness for flight. The National Transportation Safety Board (NTSB) believes that air carrier operators (certificate holders) should share the responsibility for verifying flightcrew members' medical fitness for flight duty. However, it is not always easy for certificate holders to determine the extent of a crewmember's medical fitness. In order to maintain the highest level of safety, required flightcrew members must not fly under conditions that would make them unable to meet the requirements for their current medical certificate. This decision should not be influenced by fear of company reprisals.

B. POI Responsibility. POIs should encourage their assigned air carriers to have established sick leave policies and procedures, especially those concerning the release of flightcrew members from duty when they develop sudden temporary illnesses such as colds, flu, or fevers. These policies and procedures should not discourage flightcrew members from taking sick leave when they are ill.

RESERVED. Paragraphs 3-1932 through 3-1945.