

# English Course for Flight Dispatcher

## 飞行签派专业英语教程

罗凤娥 李黎莎 罗军◎编著



西南交通大学出版社

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# PREFACE

*English Course for Flight Dispatcher* is a practical English textbook to improve the professional English skills of flight dispatchers and flight dispatch students. For flight dispatchers, English is not only a tool for communicating with foreign pilots, foreign airports and administrations, but also a basic skill for dispatchers to read various manuals, documents, NOTAMs, weather data and flight plans. Therefore, improving the flight dispatchers' English ability will do good to airlines in improving operational efficiency and ensuring aviation safety.

In recent years, the civil aviation of China has become more and more international. The air routes of Chinese airlines have extended to all corners of the world, and some airlines even have established their branch offices and stations overseas. Therefore, the new situation raises higher requirement for the English ability of Chinese flight dispatchers

Civil Aviation Flight University of China is one of the major universities educating and training flight dispatchers in China. We hope that flight dispatchers not only could master the knowledge and gain the licenses required by regulations, but also have the ability to operate internationally and do a better job of operational control at the airlines.

Under this background, the editors initiated the preparation of the *English Course for Flight Dispatcher*. For students' better understanding, this textbook is prepared based on the internal connection of the teaching contents, from the shallower to the deeper, highlighting key points and difficulties. It is highly pragmatic, showing strong logic in content arrangement and narration. In addition, the preparation has referred to a variety of Chinese and foreign regulations, airline manuals and related materials and sufficiently considered

the actual operation of the airlines. A large number of cases and actual dialogues are provided in English, making this textbook vivid and interesting.

The editors of this textbook have been engaged in flight dispatch teaching for many years, have overseas study experience, and have obtained the Federal Aviation Administration flight dispatcher license; moreover, they have attended many international conferences, with rich teaching experience and good English skills. However, the operating environment of the international operation of airlines is complicated and varies from time to time, involving a wide range of knowledge. The information that the editors consulted with and collected is limited. The contents of this book may be different from the actual situation. If there is anything inaccurate, readers are welcomed to give kindly comments.

The preparation of this textbook was strongly supported and assisted by Civil Aviation Flight University of China, Civil Aviation Administration, and many airlines. They provided us with a wealth of valuable information and cases, so I would like to express my deep gratitude to them.

The Writer

2019-08-10

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# CHAPTER 1



## *Introduction*

### Unit 1 History of Dispatch

Dispatchers serve as one of the most crucial component to the entire airline operation. Aircraft dispatchers are licensed airmen, certified by the Civil Aviation Administration of China (CAAC). Dispatchers must undergo extensive testing and training to earn this highly sought-after certificate, and must pass both an extensive oral examination and the comprehensive written Aircraft Dispatcher Test. These tests are equivalent to the Air Transport Pilot License (ATP) written and oral examinations that airline pilots take as part of their licensing procedure. They are, in essence, pilots on the ground, and are as legally liable for the aircraft as pilots in the cockpit. Dispatchers have joint responsibility for the flight.

With the development of the economy, the demands of air transportation are becoming more and more tremendous both in domestic and foreign market. The portfolio of airline is too huge to handle in an order, safe, and efficient way without someone who is responsible only for the operation control. So the need of dispatchers comes into being. Just as other occupations, to be a dispatcher working for operation control and flight release must have working methods, procedures and operating instructions. So we need establish regulations and specifications to conduct dispatchers what should do and how to accomplish their missions safely. As is known to us, the most important principles of airline operation are safe, order, and efficient. That is also the reason why the airlines employ dispatchers to



manage the flight control. In 1987, Chinese government decided to separate the airline, airport and government according to their function. This policy brought a new type of work—dispatch indirectly. As the flight operation is becoming more and more complicated and the contest is more intense among different airlines, many airlines employ someone to take charge the business of flight operation. At the beginning, there were only few people engaged into flight control. But now there are a large number of them working in their occupations.

In China, civil aviation is a young industry. Six years later than Wright Brothers invent aircraft, Chinese inventor Feng Ru made the first aircraft of China in 1909. And with the implementation of opening up policy, the civil aviation of China got a fast and prosperous development. The number of airlines and flight increased amazingly. So for the aim of managing domestic air transportation, the government of China incorporated Civil Aviation Administration of China (CAAC) in 1949. And then CAAC issued CCAR-25 in 1985. In 1990, the first dispatch handbook issued. And after then, the number of dispatchers has multiplied. With the development of world economy, aviation has experienced a thoroughly change. To get in close touch with the world, CCAC made many new policies to accelerate the development of Chinese civil aviation. More dispatchers contributed to this field. CCAR-121 is a regulation to illustrate whether the certificate holder can meet the airworthiness requirements. CAAC issued CCAR121-R5 and gave a new fuel policy in 2017. CAAC also issued CCAR-65 to standard the management of dispatcher license and the agents who award license. And CAAC revised CCAR-65 in 2016.

All in all, for the aim of keeping in a close step with the international civil aviation, internationalization of China civil aviation is imperative. On one hand, we should improve the technology and equipment of China civil aviation operation, and guarantee that we have no or little problems in operation skills. On the other hand we must improve the level of dispatchers, and try our best to avoid the human mistakes in practical operation. To improve the English level of dispatchers is an efficient way for accomplishing this mission, which gives dispatchers more opportunities to touch the advanced operation methods and makes them more and more internationalization. With the development of the

economy, air transportation is needed more heavily than ever before. While because of China's short history of dispatch and the fierce increasing of civil aviation, the shortage of dispatchers will exist in a long period. That is to say, the number of dispatchers will increase in the near future. Due to the opening up policy of China, the standard of dispatchers must be improved to satisfy the need of international aviation transportation market. Therefore, more and more new international operation methods are taken into practical use. Foreign language manuals are introduced from other authorities and other international organizations increasingly. Many new overseas route are opened with the time goes by. Because of the above reasons, handling both Chinese and English will be an inevitable tendency for Chinese dispatchers.

## Unit 2 Duty of Flight Dispatch

### 1.2.1 General Duty

CCAR121 sub-parts T (flight operations) and U (dispatching) are the most relevant sections concerning operational control. CCAR121.533 in sub-part T clearly defines the operational control responsibilities of both the Pilot in Command (PIC) and the Flight Dispatcher. Responsibilities for operational control of domestic air carriers are as follow:

- (1) Each domestic air carrier is responsible for operational control.
- (2) The pilot in command and the flight dispatcher are jointly responsible for the pre-flight planning, delay, and dispatch release of a flight in compliance with this chapter and operations specifications.
- (3) The flight dispatcher is responsible for:
  - (a) Monitoring the progress of each flight;
  - (b) Issuing necessary information for the safety of the flight; and
  - (c) Canceling or re-dispatching a flight if, in his opinion or the opinion of the pilot in command, the flight cannot operate or continue to operate safely as planned or released.
- (4) Each pilot in command of an aircraft is, during flight time, in

command of the aircraft and crew and is responsible for the safety of the passengers, crew members, cargo, and airplane.

(5) Each pilot in command has full control and authority in the operation of the aircraft, without limitation, over other crew members and their duties during flight time, whether or not he holds valid certificates authorizing him to perform the duties of those crew members.

It is clear from these regulations that the dispatcher plays a key role in the operation of airlines. For many people, however, the flight dispatcher is a “forgotten airman”. The flight dispatcher is indeed a certificated airman under CCAR Part 65 and is charged with the responsibility for operational control in concert with the PIC: CCAR 65.51 Certificate required. No person may serve as an flight dispatcher (exercising responsibility with the pilot in command in the operational control of a flight) in connection with any civil aircraft in air commerce unless he has in his personal possession a current flight dispatcher certificate issued under this sub-part.

A flight dispatcher is a person responsible for planning and monitoring the progress of an aircraft journey. Depending on the type of certification the airline has and where the airline is based, both the pilot in command and the dispatcher are legally responsible for the safety of a flight. A dispatcher may have the authority to delay, divert or cancel a flight at any time, and a flight might not be able to be released without the signature of both the pilot in command and the dispatcher, depending on the jurisdiction.

A dispatcher typically must be licensed by the aviation authority of that country. In order to obtain the license, the candidate must demonstrate extensive knowledge of meteorology and aviation in general, to a level comparable to the holder of an airline transport pilot license.

The dispatcher uses sophisticated software tools to monitor the flight’s progress and advises the flight crew of any circumstances that might affect flight safety. Shared responsibility adds a layer of checks and balances to aircraft operation and greatly improves safety.

In some jurisdictions of the U.S., the dispatching duties and responsibilities are designated to flight followers. The main difference between a flight dispatcher and a flight follower is that the latter does not share legal responsibility for the operation of a flight. Also, followers are not

required to attain a flight dispatcher's license, although they are usually encouraged to do so.

At the original period, there was no dispatcher in airline. With the development of the civil aviation, more flights come up and the flight operation becomes very complicated. Then the dispatcher appears. But most of the people have no idea about the dispatcher and the occupation, nor the fact that someone has to be a dispatcher.

There is often some confusion between the pilot's command authority and the concept of dispatcher and PIC joint responsibility for operational control. It should be clear from CCAR 121.533 that the PIC "has full control and authority in the operation of the aircraft, without limitation...". This does not diminish the dispatcher's responsibility to ensure the conduct of the flight under CCAR Part 121 rules. Just as a mechanic has a responsibility under CCAR that is separate from that of the PIC, the dispatcher, too, has an obligation to perform certain prescribed duties separated from the PIC. Unlike the mechanic, the dispatcher's required duties do not end when the aircraft departs.

### **1.2.2 Duty in Details**

To work as a flight dispatcher requires successful completion of about 200 hours or 800 hours of flight dispatcher training ( which depends on the operation experience of individual) , and an ability to pass the CAAC Oral/Practical Exam and the CAAC Flight Dispatcher Computer Knowledge Exam to become licensed. Schools that provide CAAC-approved training in aircraft dispatching are qualified to teach everything one need to become an active airline dispatcher.

(1) The Aircraft Dispatcher is a licensed airman certificated by the Civil Aviation Administration.

(2) He/She has joint responsibility with the captain for the safety and operational control of flights under his/her guidance.

(3) He/She authorizes, regulates, and controls commercial airline flights according to government and company regulations to expedite and ensure

safety of flight.

(4) He/She is also responsible for economics, passenger service, and operational control of day to day flight operations.

(5) He/She analyzes and evaluates meteorological information to determine potential hazards to safety of flight and to select the most desirable and economic route of flight.

(6) He/She computes the amount of fuel required for the safe completion of flight according to type of aircraft, distance of flight, maintenance limitations, weather conditions, and minimum fuel requirements, prescribed by civil aviation regulations.

(7) He/She prepares flight plans containing information such as maximum allowable takeoff and landing weights, weather reports, field conditions, NOTAMS, and many other informational components required for the safe completion of flight.

(8) He/She prepares and signs the dispatch release which is the legal document providing authorization for a flight to depart.

(9) He/She delays or cancels flights if unsafe conditions threaten the safety of his/her aircraft or passengers.

(10) He/She monitors weather conditions, aircraft position reports, and aeronautical navigation charts to evaluate the progress of flight.

(11) He/She updates the pilot in command of significant changes to weather or flight plan and recommends flight plan alternates, such as changing course, altitude and, if required, enroute landings in the interest of safety and economy.

(12) He/She originates and disseminates flight information to others in his/her company including stations and reservations. This is the source of information provided to the traveling public.

(13) He/She has undergone extensive training to earn the coveted Aircraft Dispatcher's certificate, having taken and passed both an extensive oral examination and the comprehensive test, administered by CCAR. He/She participates in frequent and detailed recurrent training courses covering aircraft systems, company operations policy, meteorology and Air Regulations as required by the CAAC.

## CHAPTER 2



### *Regulation and Airline Manuals*

In this chapter, we will illustrate the regulations and airline manuals. Since the establishment of Civil Aviation Administration of China (CAAC), it has made many regulations and specifications to standardize the manipulate procedure for the aim of making operation more safety, orderly and efficiently. They are CCAR-121, CCAR-65, CCAR-91, CCAR-135, CCAR-61, CCAR-67, CCAR-97, CCAR-71, CCAR-93, CCAR-25, and CCAR-91FS-II. All these regulations are introduced in this chapter. What is more, advisory circulars, operation manuals, operations specifications, AFM and other manuals are listed in this chapter.

#### Unit 1 Airline Operation Regulations

The dispatcher maintains a constant watch on all flights dispatched, and is responsible in joint agreement with the airline captain for flight planning, route and altitude selection, fuel load requirements, aircraft legality and complying with CCAR. He/She must thoroughly know the CCAR on airline operations and airline's operation manual and operations specifications. The main Civil Aviation Regulations on airline operations are as follows:

- (1) CCAR-25 *Airworthiness Standards: Transport Category Airplanes*;
- (2) CCAR-61 *Rules of Civil Aircraft Pilots, Flight Instructors and Ground Instructor Certification*;
- (3) CCAR-65 *Management Rules of Flight Dispatchers License*

*Certification;*

(4) CCAR-91 *General Operating and Flight Rules;*

(5) CCAR-121 *Large Aircraft Commercial Transport Operators Operating Certification Rules;*

(6) CCAR91FS-II *Civil Aviation of China Instrument Landing System Category II Operations: Manual, Instruments, Equipment, and Maintenance;*

(7) CCAR-97 *Provisions on the Formulation and the Implementation of Aerodrome Operation;*

(8) CCAR-71 *Rules of Airspace Used for Civil Aviation;*

(9) CCAR-67 *Medical Standards and Certification;*

(10) CCAR-135 *Small Aircraft Commercial Transport Operators Operating Certification Rules;*

(11) CCAR-93 *China Civil Aviation Air Traffic Management Rules.*

### **2.1.1 CCAR-121**

CCAR-121 is used to guide the airline's operation, CAAC's certification process and operational inspection on airlines' operation. CCAR-121 prescribes rules governing the domestic, flag, and supplemental operations of each person who holds or is required to hold an Air Carrier Certificate or Operating Certificate. This regulation applies to the following operations:

(1) A carrier that conducts scheduled passenger-carrying operations with any airplanes having more than two engines and a payload capacity of more than 5,700 kg.

(2) A carrier that conducts any nonscheduled passenger-carrying operation with airplanes having more than two engines, a payload capacity of more than 3,400 kg and a passenger-seat configuration of more than 30 passenger seats.

(3) A carrier that conducts full load-carrying operations with any airplanes having more than two engines and a payload capacity of more than 3,400 kg.

(4) For the air operator applicable to this section, it is referred to as the large aircraft public air carrier in CCAR Part 121.

(5) For large-scale aircraft public air transport carriers that have passed the CCAR-121 certification, the Civil Aviation Administration of China

(hereinafter referred to as the Civil Aviation Authority) authorizes the relevant CAAC Regional Administration to approve its implementation in its operational certificate and operational specifications in accordance with the validation. Run one or more of the following types of operations:

(a) Domestic regular passenger operation refers to the operation between two points within the territory of the People's Republic of China in accordance with paragraph (1) of paragraph (a) of this Article, or one domestic location and another designated by the Administrator. Operation between foreign locations for domestic locations.

(b) Flag regular passenger operation means compliance with paragraph (1) of paragraph (a) of this Article, between a domestic location and a foreign location, between two foreign locations, or between a domestic location and another. The operation between the domestic sites designated by the Administrator and regarded as foreign locations.

(c) Supplementary operation refers to domestic or international operations other than regularity as specified in paragraphs (2) and (3) of this Article.

(d) Large aircraft public air transport carriers shall comply with other relevant Chinese civil aviation regulations, but in the case of CCAR-121 department to supplement the corresponding requirements or put forward higher standards, it shall be implemented in accordance with the requirements of CCAR-121.

(e) Personnel used in the operation of large aircraft public air carriers and large aircraft carriers carried by public air carriers shall comply with the applicable requirements of CCAR Part 121.

(f) In CCAR Part 121, for the carriage of goods, the flight is considered to be carried; for flights that carry passengers and cargo at the same time, it is considered to carry passengers, but it shall also meet the requirements of the provisions of CCAR-121 concerning the carriage of goods.

The latest revision is R5 from CAAC.

## **2.1.2 CCAR-65**

This rule prescribes the requirements for issuing the flight dispatchers



certificates and associated ratings and the general operating rules for the holders of flight dispatchers certificates and ratings. This rule applies to the application, issuance and management of civil aviation flight dispatcher license and the qualification certification of flight dispatchers training institutions.

There are five parts in CCAR-65:

(1) General.

(2) The application, issuance and management of civil aviation flight dispatcher license: flight certificate required, written tests, applicant's practical experience, the application and issue for dispatcher license, practical tests requirements, procedures of written tests and practical tests, makeup, the authenticity of the application materials.

(3) The management of flight dispatcher license: requirements of license, the review of licenses, valid period of licenses, the renewal, re-certification and transfer of licenses.

(4) The application, issuance and management of the qualification certification of flight dispatchers training institutions: application requirements; flight dispatcher certification courses: content and minimum hours; flight dispatcher certification courses: application, duration and other general requirements; flight dispatcher certification courses: training facilities; flight dispatcher certification courses: personnel; flight dispatcher certification courses: records for flight dispatchers training institutions.

(5) Legal liability: inacceptance of license application; legal responsibility of license holder; training without training institute certificate; legal responsibility of civil aviation administration organizations and staffs.

The latest revision is R2 from CAAC.

### **2.1.3 CCAR-91**

CCAR-91 provides the rules to standardize the operation of civil aircraft and ensure the flight safely and normally. It prescribes the general requirements and flight rules to all the aircraft operations in China. CCAR-121 and CCAR-135 are usually play a supplementary or alternative role of CCAR-91. Only CCAR-91 could be applied to the flight operations which are not aimed to get paid.