

FLIGHT DISPATCH

飞行签派

FENG-E LUO

罗凤娥 编著



西南交通大学出版社
[Http://press.swjtu.edu.cn](http://press.swjtu.edu.cn)

Flight Dispatch

飞行签派

FENG-E LUO

罗凤娥 编著

西南交通大学出版社

· 成 都 ·

图书在版编目 (C I P) 数据

飞行签派 = Flight Dispatch: 英文 / 罗凤娥编著.
— 成都: 西南交通大学出版社, 2012.8
ISBN 978-7-5643-1936-6

I. ①飞… II. ①罗… III. ①民用航空 - 机场 - 业务
- 英文 IV. ①F560.81

中国版本图书馆 CIP 数据核字 (2012) 第 205615 号

Flight Dispatch

飞行签派

FENG-E LUO

罗凤娥 编著

责任编辑	牛 君
封面设计	墨创文化
出版发行	西南交通大学出版社 (成都二环路北一段 111 号)
发行部电话	028-87600564 028-87600533
邮政编码	610031
网 址	http://press.swjtu.edu.cn
印 刷	成都蓉军广告印务有限责任公司
成品尺寸	185 mm × 260 mm
印 张	17.125
字 数	585 千字
版 次	2012 年 8 月第 1 版
印 次	2012 年 8 月第 1 次
书 号	ISBN 978-7-5643-1936-6
定 价	38.00 元

图书如有印装质量问题 本社负责退换
版权所有 盗版必究 举报电话: 028-87600562

Preface

Flight Dispatch is a professional monograph which illustrates dispatch information for both theoretical knowledge and license test comprehensively. For the aim of keeping in close with the international civil aviation, domestic dispatcher must master all kinds of professional knowledge used in practical operation. On the other hand, CAAC appealed to all airlines and training agents to offer all-in-English courses. So I decide to compile this kind of book to makeup this supplement after deliberate research, to set a solid foundation for domestic dispatcher and to make the training meet the international standard requirements.

Main Content

All of the knowledge for dispatcher is included here, and has been arranged into 9 chapters based on each subject matter. They are chapter 1, background; chapter 2, license requirements and training requirements; chapter 3 regulation and airline manuals; chapter 4, Fundamental knowledge; chapter 5, airline operation control; chapter 6, abnormal operation management; chapter 7, special operation; chapter 8, emergency operation; chapter 9, operation inspection. Each chapter includes main knowledge about the subject.

In chapter 1, this book introduce the main background of dispatch in China, including the history and the development of dispatch, the establishment of official governing organization, the insurance of dispatch regulations, dispatch in U.S., introduction of flight dispatcher occupation and some basic requirements for dispatcher. After reading this chapter, the reader can get a main idea about what is dispatcher. I discuss the license requirements and trainings from related regulations and specifications in chapter 2. In addition, I illustrate dispatcher trainings with Dispatcher Resource Management in detail and some other training in general. I introduce the regulations and airline manuals such as CCAR-121, CCAR-65 and some of the manuals used in domestic airlines currently in chapter 3. Chapter 4 mainly contains the fundamental knowledge needed for a dispatcher like flight performance, aircraft structure and system (including automatic flight system, communication system, hydraulic system, landing gear system and anti-ice system etc.), meteorology and reports, dispatcher training and NOTAM. I talk about AOC including the concept of AOCs (the AOC's organizational structure, function, functional positions and support group), dispatch release, flight monitor and flight briefing in chapter 5. And I discuss the abnormal operation in chapter 6. I divided the content of this chapter into four units: airport, airline, ATC and other aspects. In accordance with the concrete problems, this book analyzes the factors of abnormal flight and then put forward optimal strategies about operation management. Chapter 7 is special operation. It includes special airport operation, operation in RVSM, PBN operation, CATII ILS operation, re-dispatch, ETOPS operation, extend-water-operation and so on. Special operation is dangerous for the flight. We must pay more attention

to this for avoiding every kind of potential risks. I compile emergency operation in chapter 8. This chapter consists of two sections. Section 8.1 mainly talks about the concept of emergency operation, the degree and the basic principle of emergency operation. Section 8.2 mainly talks about the emergency procedure of every apartment involved and special feeling disposal program. Chapter 9 mainly illustrates operational inspection. Organizational Structure/ Management Evaluation, Operational Control Inspection, Training Program Inspection, Training and Qualification Records Inspection, Flight and Duty Time Records Inspection; Station Facility Inspection; Emergency Evacuation Demonstration, Ditching Demonstration and Proving Flights including En Route Cockpit and Cabin Inspections.

Use of the Book

Flight dispatch is written under the environment of internationalization. My original thought to compile this book is to appeal for the all-in-English teaching policy of CAAC and our school. Civil Aviation Flight University of China is an important dispatcher training agent. So I must follow the pace of the outside world. Under the circumstance of internationalization, I hope that this book could provide helpful usage: on one hand, I may use this book into dispatch teaching for our students. Using the professional English knowledge to equip our students so that they can adjust themselves to their future occupation more easily, and it is helpful for them to getting a prior opportunity in international competition. On the other hand, I may use this book into re-training dispatchers who have already worked in their airline. With their fundamental knowledge, I teach them what they have handled in an English way. It will be useful for them to meet the requirements of internationalization.

This book is all-in-English to teach dispatcher professional knowledge and practical operation skills in China. After reading this book, I think you will get a whole figure about flight dispatch in China. You can learn some English terms that you used before in Chinese. I hope that this book can help you improve both your English level and professional skills.

Acknowledgements

Finally, I want to give thanks to the assistant from my friends, students and workmates with a grateful heart. They gave me great help during the compiling process. I should also give sincere thanks to the support of the leaders and experts from CAAC, CAFUC and airlines. I think the book is useful for learning dispatch English. And to some extent, it will make a contribution to civil aviation industry.

FENG-E LUO

Civil Aviation Flight University of China

2012-07

Content

Chapter 1 Background	1
1.1 History of Dispatch	2
1.2 Dispatcher Occupation Introduction	5
Chapter 2 License Requirements and Training Requirements	8
2.1 License Requirements	9
2.2 Dispatcher Resource Management Training	14
2.3 Dispatcher Training Program	17
Chapter 3 Regulation and Airline Manuals	20
3.1 Airline Operation Regulations	21
3.2 Advisory Circular	25
3.3 Operation Manuals and Operation Specifications	27
3.4 MEL (Minimum Equipment List)	31
3.5 AFM and FCOM	53
Chapter 4 Fundamental Knowledge	56
4.1 Flight Performance	57
4.2 Aircraft System	75
4.3 Meteorology and Reports	98
4.4 NOTAM	126
Chapter 5 Airline Operation Control	133
5.1 Airline Operation Control System	134
5.2 Dispatch Release	140
5.3 Preflight Briefing Case	152
5.4 Flight Monitoring	156
Chapter 6 Abnormal Operation Management	166
6.1 The Factors of Abnormal Flight	167
6.2 Other Factors	170
6.3 The Operation of Abnormal Flight	171
6.4 Strategy of Flight Schedule Adjustment	196
6.5 The Optimal Management of Abnormal Flight	198

Chapter 7 Special Operation	201
7.1 Special Airport Operation	201
7.2 RVSM	212
7.3 PBN Operation	216
7.4 CATII ILS Operation	222
7.5 Re-dispatch	225
7.6 ETOPS	231
7.7 Extended Over-water Operation	238
Chapter 8 Emergency Operation	241
8.1 Outline	242
8.2 Emergency Process Procedure	247
Chapter 9 Operational Inspection	251
9.1 The Contents of Operational Inspection	252
9.2 Dispatch Inspections	255
References	265



CHAPTER 1

Background

General

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 depending on 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 both the pilot in command and the dispatcher, again 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 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 is 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, their occupation and have to be a dispatcher. Consequently, at this part I will introduce the general information and something related to dispatch, such as dispatch history both in China and U.S., requirements for being a dispatcher from the point view of the Civil Aviation Administration of China, dispatcher occupation introduction. After getting all these knowledge, you will get a whole figure about dispatch and working for this kind of job.

1.1 History of Dispatch

1.1.1 Dispatch in China

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 dispatcher comes into truth. Just as other occupations, to be a dispatcher working for operation control and flight release must have working method, procedure and operating instruction. So we need establish regulations and specifications to conduct dispatcher 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 reasons why the airlines employ dispatcher to manage the flight control. In 1987, Chinese government decides to separate the airline, airport and government according to their function. This policy brings a new type of work——dispatch indirectly. Because of the flight operation is becoming more and more complicated and the contest is more intense between different airlines, many airlines employ someone to take charge the business of flight operation. At the beginning time, there are 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 with a short age. After 6 years later than Wright Brothers invent aircraft, Chinese inventor Fengru makes the first aircraft of Chinese own in 1909. And till the opening up policy come into use, the civil aviation of China get a fast and prosperous development. The number of airlines and flight increase amazingly. So for the aim of managing domestic air transportation, the government of China incorporates Civil Aviation Administration of China (CAAC) in 1949. And then CAAC issues CCAR-25 in 1985. At 1990, the first dispatch handbook issued. And after then, the number of dispatcher has a big improvement. With the development of world economy, aviation has a thoroughly change. To get in close touch with the world, CCAR made many new policies to accelerate the development of Chinese civil aviation. More dispatchers contribute to this field. CCAR-121 is a regulation to illustrate whether the certificate holder can meet the airworthiness requirements. CAAC issues CCAR-65 to standard the management of dispatcher license and the agent who award license. There are also many problems that haven't been solved. The technology and equipment we used in practical operation still fall behind Europe and U.S. Some of the domestic dispatchers cannot make a right and direct decision according to their knowledge and skill. The procedure of AOC is too complicated. It is inefficient for airline to accomplish operation mission timely. With the comparison to U.S., our communication system is also behindhand. We cannot organize operation under risk efficiently. Especially in emergency operation and abnormal operation, there are lots of things that we should learn from foreign airlines. Considering this from another angel, that is to say we should improve the dispatcher's English level for the aim of learning advanced operation skills outside and meet the requirement of internationalization.



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. Guarantee that we have no or little problems in operation skills. On the other hand we must improve the level of dispatchers. Try our best to avoid the human factors in practical operation. And to improve the English level of dispatchers is an efficient way for accomplishing this mission. Give dispatchers more opportunity to touch the advanced operation method. Making them more and more internationalization is imperative. With the development of the economy, there are more and more air transportation be needed. Because dispatch has a short history in China 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 dispatcher must be improved to satisfy the need of international aviation transportation market. More and more new international operation methods are taken into practical usage. Foreign language manuals are introduced from CAAC and other international organizations increasingly. Many new overseas en route are opened with the time goes by. Because of the reasons tells above dispatchers handling both Chinese and English will be an inevitable tendency.

1.1.2 Dispatch in U.S.

In the United States (U.S.), the term “dispatcher” is fairly generic; there are many types of dispatchers, such as taxi, police, and bus dispatchers. For a U.S. airline to function properly, an airline employee whose job performance is critical is the airline dispatcher. The functions the dispatcher fulfills on a regular basis are demanding and impose a variety of stressors, similar to those experienced by other critical airline employees, day in and day out. The job of the U.S. flight dispatcher plays a major, legal role in the operation of an airline. The primary job of the flight dispatcher is to work within the Airline Operations Center (AOC) and provide for flight safety. Flight dispatcher, working within the AOCs, face intense pressures such as severe time constraints, flight/work overload, in addition to external pressure from their superiors. When poor weather prevails, and other factors compound the situation (e.g., in-flight emergencies), the job of the dispatcher intensifies. Nevertheless, in combination with the Captain, who has direct control of his/her aircraft, the flight dispatcher must play an equally important legal role in the safety of every flight.

In addition to the flight dispatch function, the AOCs typically house numerous other departments; these comprise crew scheduling, some form of maintenance dispatch, load control, and the management and protection of traffic/revenue.

The flight dispatcher is at the heart of coordination of all AOC departments for safe, efficient flight operations; the workload can be high. At one major U.S. airline, dispatchers may be responsible for handling up to 30 flights at a time. Other major U.S. airlines anecdotally report similar workloads, leading

to the generalization that the dispatch function within the AOCs of major airlines can be hectic. The roles of flight dispatcher include additional factors to be discussed during the following investigation.

In light of the fact that there has been a dearth of literature describing the dual mandate of safe and economically efficient performance required of the dispatcher, this qualitative study has explored a variety of operational factors affecting the individuals currently holding airline flight dispatch positions.

The profession of the flight dispatcher has evolved with the many changes that the aviation industry has undergone. In the early stages of aviation, pilots of commercial airlines often had to load mail, passengers, and cargo into their airplanes. There was very little navigation equipment, no communication equipment and there was no way for the airlines to track aircraft in the early days of aviation. Accidents increased over the years, lives were being lost, and a tremendous amount of money was vanishing due to equipment losses.

In 1938, the Congress of the United States passed the Civil Aeronautics Act. This bit of legislation set forth regulations to make certain that all the nations' air carriers operated with the highest degree of safety. One result of this regulatory action was the creation of a new Airman Certificate. The flight dispatcher was created.

The flight dispatcher was and is a ground based, certificated individual who, according to the regulations, shares responsibility with the pilot for the safe conduct of each flight. Today, the concept of shared responsibility for the safe operation of a flight remains a shared responsibility between the Captain and the dispatcher. Over the years, flight dispatchers have been known by many names such as aircraft dispatchers and flight superintendents, as well as flight controllers. No matter what the name, the function is the same: ensure compliance with all applicable regulations and the pursuit of the highest possible level of air safety.

The Code of Federal Regulations Title 14 Aeronautics and Space (Title 14CFR) Parts 119 and 121 require all scheduled airlines, that have aircraft with more than nine passenger seats, to maintain an appropriate number of dispatch centers staffed by FAA certificated dispatchers. Dispatching has come a long way since the early years of aviation. The industry safety record has spelled it out.

Today, at most U.S. airlines, dispatchers work in a dynamic flow environment within an AOC. (System Operations Control [SOC] and Operations Control Center [OCC] are similar labels for the AOC facility.) The proper functioning of this control center is vital to the smooth operation of the airline. An AOC is the central control point for all daily operational issues involving security, emergencies, weather, aircraft crew coordination, aircraft maintenance routing, and overall operational coordination. A key point to mention about the AOC is that it is not required by regulation; AOCs have been implemented by airlines to improve efficiency.

Flight dispatch is responsible for developing and disseminating the flight plan or dispatch release. The dispatch release contains all the information a Captain needs to operate his/her assigned flight from one city to the next. The 14 CFR Part 121 regulations require a dispatch release.



1.2 Dispatcher Occupation Introduction

1.2.1 General Introduction

Even though the airlines are in business to transport people from one place to another, they could not function without the help of many people on the ground, including those who take reservations and sell tickets, as well as those who help keep the airplanes operating on schedule.

Position Description

CCAR 121.533 states that both the airline captain and the dispatcher are held jointly responsible for the safety of the flight. In cooperation with the pilot, the flight dispatcher furnishes a flight plan that enables the aircraft to arrive at its destination on schedule with the maximum payload and the least operating cost. The flight dispatcher considers en route and destination weather, winds aloft, alternate destinations, fuel required, altitudes, and traffic flow. The dispatcher's signature, along with that of the pilot, releases the aircraft for flight. 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 regulations. The dispatcher is the go-between for the pilot and ground service personnel, and keeps all personnel concerned with the flight informed about its status. The dispatcher must be familiar with navigation facilities over airline routes and at airports as well as with the takeoff, cruising, and landing characteristics of all aircraft operated by the airline. The flight dispatcher also must ride periodically in the cockpit with the flight crew to observe flight routes, conditions, and airports.

1.2.2 Working Conditions

The dispatcher shares 50% decision making and responsibility for the safety of each flight with the airline captain. Flight dispatchers work indoors at the airport in the airline operations office or control center. They use computers, calculators, weather charts and information, and loading re-ports. A 40-hour week with shift work is normal.

Flight dispatchers frequently work under pressure in a fast-paced environment especially when flying weather is bad. They must make many rapid decisions concerning safety, flight regulations, and the economy of operations. These employees are surrounded by people, teletype machines, telephones, and intercom systems in a noisy, busy atmosphere. Those who work for a small airline, carry on the duties of a meteorologist and schedule coordinator.

CCAR 121 dictates that airline dispatchers must ride in the cockpit jump seat on "familiarization flights" for a minimum of 5 hours each calendar year. However, most airlines treat dispatchers like pilot



cockpit crew members, and extend them this excellent privilege on an unlimited basis. Also, hundreds of other airlines around the world recognize the significance of the airline dispatcher, and extend the cockpit jump seat authority freely to them. This is one of the greatest benefits available for dispatchers.

Flight dispatchers must be able to work rotating shifts including days, nights, weekends and holidays.

1.2.3 Duty of Flight Dispatch

1.2.3.1 General Duty

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

(a) Each domestic air carrier is responsible for operational control.

(b) The pilot in command and the flight dispatcher are jointly responsible for the preflight planning, delay, and dispatch release of a flight in compliance with this chapter and operations specifications.

(c) The flight dispatcher is responsible for:

(1) Monitoring the progress of each flight;

(2) Issuing necessary information for the safety of the flight; and

(3) 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.

(d) 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.

(e) 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 subpart.

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 separate from the PIC. Unlike the mechanic, the dispatcher's required duties do not end when the aircraft departs.

1.2.3.2 Duty in Details

To work as a flight dispatcher requires successful completion of about 800 hours or 200 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 you everything you need to become an active airline dispatcher.

You have joint responsibility with the captain for the safety and operational control of flights under your guidance.

You authorize, regulate and control commercial airline flights according to government and company regulations to expedite and ensure safety of flight.

You are also responsible for economics, passenger service and operational control of day to day flight operations.

You analyze and evaluate meteorological information to determine potential hazards to safety of flight and to select the most desirable and economic route of flight.

You compute 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 federal aviation regulations.

You prepare 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.

You prepare and sign the dispatch release which is the legal document providing authorization for a flight to depart.

You delay or cancel flights if unsafe conditions threaten the safety of your aircraft or passengers.

You monitor weather conditions, aircraft position reports, and aeronautical navigation charts to evaluate the progress of flight.

You update 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, en route landings in the interest of safety and economy.

You originate and disseminate flight information to others in his/her company including stations and reservations. This is the source of information provided to the traveling public.

You have undergone extensive training to have earned the coveted flight dispatcher's certificate having taken and passed both extensive oral examination and you comprehensive dispatch knowledge test and oral examination, administered by the Civil Aviation Administration of China.

You participate in frequent and detailed recurrent training courses covering aircraft systems, company operations policy, meteorology and Regulations as required by the CAAC.

CHAPTER 2

License Requirements and Training Requirements

General

As a dispatcher, you should get some certification to show you have the ability of handling this job properly. CAAC establish many kinds of tests to examine the certification of dispatcher like CCAR-65. In CCAR-65 there are two kinds of test: knowledge test and practical test. Knowledge test includes the fundamental knowledge that dispatcher used in operation. The Flight dispatcher Practical Test Standards book has been published by the CAAC to establish the standards for the aircraft dispatcher certification practical test. Qualified CAAC inspectors and designated dispatcher examiners shall conduct practical tests in compliance with these standards. Instructors and applicants should find these standards helpful in practical test preparation.

As is to dispatcher resource management (DRM), many airlines have found that inadequate operational control and inadequate collaborative decision-making have been contributing factors in air carrier accidents. Effective management of available resources by aircraft dispatchers is one essential deterrent to such accidents. In exercising operational control, the dispatcher coordinates with flight crewmembers, air traffic controllers (ATC), and other members of a vast team in order to meet the requirements of daily flight operations. AC 121-32, Dispatch Resource Management Training, encourages the dispatcher's knowledge of the functions of the other participants throughout the operation environment. Two expected benefits to the dispatcher are better handling of information that bears on safe flight operations and a better interface with each pilot in command, consistent with the joint responsibility concept outlined in CCAR part 121.

So in this chapter, we will learn something about license requirements and DRM training matters on the condition of the regulations and specifications that CAAC made.

2.1 License Requirements

To be a dispatcher who has the rights to release, you must get the professional license. Since the first manual made in 1990, there are lots of specified regulations to illustrate the duty and the rights of dispatcher. If you want to meet the standard, you must pass many kinds of test set by the CCAR. The most important test is license test. For the aim of standardizing the dispatcher license management, CCAR set all these requirements according to the *Civil Aviation Law of the People's Republic of China*.

2.1.1 Application

There are two kinds of tests for the dispatcher license: knowledge test and practical test. The aim of knowledge test is to standardize the professional knowledge that dispatcher needed. There are also some application requirements for knowledge test: the applicant must present documentary evidence satisfactory to the administrator of having passed a flight dispatcher knowledge test within the preceding 24 calendar months.

If you want to take part in the license test, you must meet all these requirements according to CCAR-65: (a) a person must be at least 21 years of age; (b) at least getting college diploma; (c) pass the required knowledge test prescribed by §65.55 of CCAR-65; (d) pass the required practical test prescribed by §65.59 of this part; (e) comply with the requirements of §65.57.

2.1.2 Contents for Knowledge Test

Knowledge test should include such knowledge according to CCAR-65. A person who applies for an flight dispatcher certificate must pass a knowledge test on the following aeronautical knowledge areas: (1) Applicable Aviation Regulations of this chapter that relate to airline transport pilot privileges, limitations, and flight operations; (2) Meteorology, including knowledge of and effects of fronts, frontal characteristics, cloud formations, icing, and upper-air data; (3) General system of weather and NOTAM collection, dissemination, interpretation, and use; (4) Interpretation and use of weather charts, maps, forecasts, sequence reports, abbreviations, and symbols; (5) National Weather Service functions as they pertain to operations in the National Airspace System; (6) Wind shear and microburst awareness, identification, and avoidance; (7) Principles of air navigation under instrument meteorological conditions in the National Airspace System; (8) Air traffic control procedures and pilot responsibilities as they relate to en route operations, terminal area and radar operations, and instrument departure and approach procedures; (9) Aircraft loading, weight and balance, use of charts, graphs, tables, formulas, and computations, and their effect on aircraft performance; (10) Aerodynamics relating to an

aircraft's flight characteristics and performance in normal and abnormal flight regimes; (11) Human factors; (12) Aeronautical decision making and judgment; (13) Crew resource management, including crew communication and coordination.

2.1.3 Documentary Evidence

An applicant for an flight dispatcher certificate must present documentary evidence satisfactory to the Administrator that he or she has the experience prescribed in Application requirements of this section or has accomplished the training described in the next paragraph.

A total of at least 2 years' experience within the 3 years before the date of application, in any one or in any combination of the following areas: (1) In military aircraft operations as a — (i) Pilot; (ii) Flight navigator; or (iii) Meteorologist. (2) (i) An assistant in dispatching air carrier aircraft, under the direct supervision of a dispatcher certificated under this subpart; (ii) A pilot; (iii) A flight engineer; or (iv) A meteorologist. (3) In aircraft operations as — (i) An Air Traffic Controller; or (ii) A Flight Service Specialist. (4) In aircraft operations, performing other duties that the Administrator finds provide equivalent experience.

A statement of graduation issued or revalidated in accordance with CCAR65, showing that the person has successfully completed an approved flight dispatcher course.

2.1.4 Content of Practical Test

The Flight dispatcher Practical Test Standards book has been published by the CAAC to establish the standards for the flight dispatcher certification practical test. Qualified CCAR inspectors and designated dispatcher examiners shall conduct practical tests in compliance with these standards. Instructors and applicants should find these standards helpful in practical test preparation. An applicant for a flight dispatcher certificate must pass a practical test given by the Administrator, with respect to any one type of large aircraft used in air carrier operations. The practical test must be based on the flight dispatcher practical test standards, as published by the CAAC.

In this section, we will introduce the requirements picked from CCAR-65. Use the official introduction to illustrate the standards needed. Firstly we should know the concept of practical test. CCAR 65 specifies the subject areas in which knowledge and skill must be demonstrated by the applicant before the issuance of a Flight Dispatcher Certificate. The CAAC published practical test standards containing the AREAS of OPERATION and specific TASKs in which competency shall be demonstrated. The CAAC will revise this book whenever it is determined that changes are needed in the interest of safety. Areas of operation are phases of the practical test arranged in a logical sequence within the standard. They begin with flight planning/dispatch release and end with abnormal and emergency procedure. The examiner, however, may conduct the practical test in any sequence that will result in a complete and efficient test. TASKs are