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**Civil Aviation Administration of China (CAAC)**

**Aircraft Evaluation Group (AEG)**

# **Aircraft Evaluation Report**

**For**

**777 F and 777-300ER**

**Rev 0**

**Date: 11/July/2011**

**Manufacturer: The Boeing Company**

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## Revision Record & Approval

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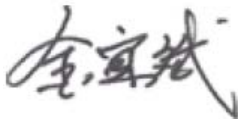


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## **Foreword**

777 series aircraft was first type certificated by FAA in April 1995, which is Model 777-200 Series. 777-200 type certificate was validate by CAAC airworthiness department in 1995, and first imported into China in December 1995. As in the time CAAC haven't set up the function of Aircraft Evaluation Group (AEG), and when CAAC AEG start the evaluation to import type of aircraft in July 2009, 777-200 is considered to be grandfathered.

Model 777F Series (also named by 777-200F in some case) was type certificated by FAA in February 2009, and type certificate was validated by CAAC airworthiness department in March 2009. 777F was evaluated by CAAC AEG in November 2009, which is also the first type of airplane in Boeing go through with the CAAC AEG evaluation.

Model 777-300ER Series was type certificated by FAA in March 2004, and type certificate was validated by CAAC airworthiness department in June 2011. 777-300ER was evaluated by CAAC AEG in June 2011.

This report was first drafted in the case of CAAC AEG evaluation in June 2011, which covers all the previous AEG evaluation determination for 777F which were issued in Dec 27, 2009. and since this report formally issued, the individual CAAC AEG approval or acceptance letter for 777F (AEG-B777-2009001 to 2009005) is cancelled.

## Section 1: Pilot Type Rating and Qualification Specification

### 1.1 Statement and Explanation

This section is the formal notification that CAAC AEG has conducted Flight Standardization Board (FSB) evaluation for Boeing 777F and 777-300ER type airplane based on the Flight Standardization Board (FSB) Report published by Federal Aviation Administration (FAA), which specifies the pilot type rating, training, checking, and currency specifications for the flight crews.

Hereby, the provisions in this section can be used, as the basis, by Chinese operators to develop their pilot qualification and training program for above airplane.

Alternate means of compliance to the requirements of CCAR 61, 91, 121, other than as specified in the provisions of this section, must be approved by Flight Standards Department of CAAC. If alternate compliance is sought, operators will be required to establish that proposed alternate means provide an equivalent level of safety to the provisions of this section, and analysis, demonstrations, proof of concept testing, differences documentation, or other evidence may be required.

**Find FAA FSB Report here:**

<http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=FSB%20Reports>

## **1.2 Pilot Type Rating and Licence Endorsement**

Upon the FSB evaluation, the Pilot Type Rating for 777F and 777-300ER is listed as following:

<b>Manufacturer</b>	<b>Aircraft Type</b>	<b>Pilot Type Rating</b>
The Boeing Company	777-200	B777
	777F(777-200F)	
	777-300ER	

### **License endorsement:**

"B777" for getting a type rating from 777-200, 777F and/or 777-300ER, and checking records should also be shown for the specific airplane type.

## **1.3 ODR and MDR**

Operator Difference Requirement (ODR) and Master Difference Requirement (MDR) tables have been given by FAA FSB Report of B-777-200/-200ER/-200LR/-200F and B-777-300/-300ER.

## **1.4 Specification for Training**

The Type Rating Training course proposed by Boeing for 777F and 777-300ER is as following, and has to be considered as a minimum:

- Transition Course included in Boeing Document Number 777-T1
- Shortened Transition Course (with previous EFIS/FMS experience) included in Boeing Document Number 777-T1
- 777-200 to 777-300ER/F(Freighter) Differences Training included in Document Number 777-D1

*Note 1: Transition Course is developed from 777-200 which is the base airplane type for all 777 series.*

*Note 2: Training courses are available by request to Boeing.*

Specifications for particular emphasis elements during training are as following:

- a) B-777 systems:

- Bank angle indications and protection,
- Enhanced underspeed (stall) and overspeed protection,
- Fly-by-wire speed stability characteristics, (C\*U) aircraft response
- Primary flight displays.

*Note: The requirement to train certain traditional maneuvers to proficiency, such as steep turns and stalls may be addressed as a training proficiency issue. Therefore, steep turns and approach to stalls will be demonstrated during training and are not typically checked in a B-777 training program.*

b) The electronic checklist (ECL) display system should be utilized when available to reduce crew workload. Use of the paper backup should also be trained. Standard practices and crew coordination should be established for use of ECL. To reduce workload, line items, which are sensed and indicate “completed” by the ECL system would not normally be read aloud.

c) If Difference Training Course adopted by operators, mixed-flying of B-777 fleets with different engine types (e.g. 777 fleet with PW, GE or RR engines) may require additional training.

d) 777-300ER differences training for pilots qualified on the 777-200 and 777F related aircraft must address the techniques required to taxi the aircraft to include use of the Ground Maneuver Camera System (GMCS) and proper thrust and speed use during taxiing. Emphasis should be made on avoidance of pilot distraction, inappropriate fixation on the displays, inappropriate uses of the GMCS, and proper speed management using sufficient engine thrust as to not create hazards to persons or property on the ground. Operators may use an approved training video or training in the aircraft to accomplish this taxi training.

e) LOFT session required for operator’s training program in addition to Transition Course included in Boeing Document Number 777-T1.

## **1.5 Specification for Checking**

As required by CCAR Part 61 and 121, with the following areas of emphasis:

- a) Proficiency with manual and automatic flight must be demonstrated.
- b) Proper outside visual scan without prolonged fixation on FMS operation should be demonstrated, and failure of component(s) of the FMS should be addressed.

- c) Proper selection and use of map displays, raw data, flight director, and AFDS should be demonstrated, particularly during instrument approaches,
- d) Demonstration of FMS/GPS navigation (departures and approaches) proficiency, if these types of operations are approved for the operator.
- e) Demonstration on the use of electronic checklists (ECL) during normal and non-normal procedures.
- f) Understanding of speed and attitude stability characteristics of B-777 flight controls in normal operation (C\*U).
- g) Proper use and knowledge of the Look Ahead Terrain Function of the EGPWS (if installed).
- h) Proper use and knowledge of the Predictive Wind Shear System, (if installed).
- i) Proper use of the Electronic Flight Bag /Flight Deck Video Security System - (if installed).

Checking for approach to stalls and steep turns are not required for the B-777 aircraft.

Due to redundant flap system features of all B-777 aircraft, demonstration of a “No Flap” approach and landing is unnecessary, provided alternate flap systems operation (flaps-only or partial-flap) is evaluated.

Following difference training, no practical test is required, and proficiency check may be conducted on any 777 variant and will be valid for any other 777 variant.

### **1.6 Specification for Currency**

As required by CCAR Part 61 and 121, the take off and landings performed on any B777 variant are valid for all variants.

### **1.7 Specification for Flight Simulation Training Devices**

Pilots qualified on either the 777-200/F or the 777-300ER related aircraft may receive recurrent training in either a B-777-200/-200ER/-200LR/-200F or the B-777-300/-300ER simulator.



## **Section 2: Master Minimum Equipment List**

### **2.1 Statement and Explanation**

This section is the formal notification that CAAC AEG has conducted Flight Operation Evaluation Board (FOEB) evaluation for Boeing 777F and 777-300ER airplane based on the Boeing 777 Master Minimum Equipment List published by Federal Aviation Administration (FAA), which outlines the items of equipment that may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations.

Hereby, the MMEL and its future revisions published by FAA can be used, as the basis, by Chinese operators to develop their Minimum Equipment List (MEL) for above airplanes.

The corresponding CAAC regulatory requirements for the FAA regulatory documents which have been referenced in the MMEL are as following:

<b>FAA</b>		<b>CAAC</b>
<b>Reference</b>	<b>Title</b>	
FAR 121	Operating Requirements: Domestic, Flag, and Supplemental Operations	CCAR-121
FAR 125	Certification and Operations: Airplanes Having a Seating Capacity of 20 or more Passengers or a Maximum Payload Capacity of 6,000 Pounds or more; and Rules Governing Persons on Board Such Aircraft	No corresponding
FAR 129	Operations: Foreign Air Carriers and Foreign Operators of U.S.-Registered Aircraft Engaged in Common Carriage	CCAR-129
FAR 135	Operating Requirements: Commuter and On Demand Operations and Rules Governing Persons on Board Such Aircraft	CCAR-135
Advisory Circular 120-42A	Extended Range Operation With Two-Engine Airplanes (ETOPS)	CCAR-121 Chapter W

**Find FAA MMEL here:**

<http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=MMEL>

777 MMEL also published by Boeing with MyBoeingFleet website.

## **2.2 CAAC Supplemental**

Not applicable.

## Section 3: Maintenance Review Board Report

### 3.1 Statement and Explanation

This section is the formal notification that CAAC AEG has conducted Maintenance Review Board (MRB) evaluation for Boeing 777F and 777-300ER airplane based on the Boeing 777 Maintenance Review Board Report (MRBR) approved by Federal Aviation Administration (FAA), which outlines the initial minimum maintenance requirements to be used in the development of an approved operator's maintenance program for the airframe, engines, systems and components.

Hereby, the MRBR and its future revisions approved by FAA can be used, as the basis, by Chinese operators to develop their maintenance program for above airplanes.

*Note: Airworthiness Limitations and Certification Maintenance Requirements has been removed from Appendix A of the MRBR, and the single source of Airworthiness Limitations and Certification Maintenance Requirements is in Section 9 of MPD (D622W001).*

#### **MRBR distribution:**

By MyBoeingFleet website.

**3.2 CAAC Supplemental**

Not applicable.

## **Section 4: Operational and Continued Airworthiness Instructions**

### **4.1 Statement and Explanation:**

This section is the formal notification that CAAC AEG has conducted evaluation of the operational and continued airworthiness instructions for Boeing 777F and 777-300ER airplane based on the relevant policies and procedures of Boeing.

Hereby, the Operational & Continued Airworthiness Instructions document listed in the attachment was found acceptable by CAAC AEG, and will give the necessary guidance for properly operating and maintaining the Boeing 777F and 777-300ER airplane within the approved operating conditions and limitations.

This acceptance may not assure the accuracy and applicability of the content in each document, it is the aircraft owner's or operator's responsibility to report any defect or discrepancy in the documents to the aircraft manufacturer, or report to CAAC AEG by mail box: aeg@caac.gov.cn.

### **Operational & Continued Airworthiness Instructions distribution:**

By MyBoeingFleet website.

**4.2 List of Operational and Continued Airworthiness Instructions (777F and 777-300ER)**

<b>Manual</b>	<b>Reference No.</b>	<b>Description</b>	<b>Revision/Date</b>
MPD	D622W001	777 Maintenance Planning Data	As revised
AMM	D633W101	777 Aircraft Maintenance Manual	As revised
FIM	D633W103	777 Fault Isolation Manual	As revised
NDT	D634W301	777 Non Destructive Testing Manual	As revised
SRM	D634W201	777-200 Structure Repair Manual	As revised
SRM	D634W210	777-300 Structure Repair Manual	As revised
Task Card	D633W109	777 Task Cards	As revised
IPC	D633W11	777 Illustrated Parts Catalog	As revised
WDM	D280W503	777 Wiring Diagram Manual	As revised
ITEM	D634W501	777 Illustrated Tool & Equipment Manual	As revised
FCOM	D632W001	777 Flight Crew Operations Manual	As revised
QRH	D632W001	777 Quick Reference Handbook	As revised
FCTM	FCT777(TM)	777 Flight Crew Training Manual	As revised
FAM	D611W302	777 Flight Attendant Manual	
W&B	D043W522	777F Weight & Balance (Control and Loading Manual)	As revised
W&B	D043W530	777-300ER Weight & Balance (Control and Loading Manual)	As revised
DDG	D630W003	777 Dispatch Deviations Guide	As revised
CMP	D044W054	Model 777 ETOPS Configuration, Maintenance, and Procedures	As revised

*Note 1: The acceptance of above manuals is not affected by document reference numbers changed due to customization.*

*Note 2: Some non type-specific airplane manuals (e.g. Standard Wiring Practices Manual) may also need to be referenced by the operator. Please check MyBoeingFleet website for more information.*

*Note 3: Component maintenance procedures may reference Boeing OHM/CMM Index (Doc. No. D6-47081) and can be found in the MyBoeingFleet website.*

*Note 4: As FAA approved emergency evacuation procedure is not included in the FAM, when operators develop their own procedure, Section 6.5 of this document could be referenced for more information.*

## Section 5: CCARs Compliance Checklist

### 5.1 Statement and Explanation:

This section is the formal notification that CAAC AEG has developed the compliance checklist for Boeing 777F and 777-300ER airplane based on the following aircraft configuration:

-FAA Type Certificate Data Sheet No. T00001SE, March 4, 2011

The checklist is provided as an aid to identify those specific requirements of rules for which compliance has already been demonstrated for the type design. The checklist also notes the requirements of rules which remain to be demonstrated compliance by the operators.

When the aircraft configuration differs from the above stated aircraft configuration, it is the responsibility of the operator and its CAAC Principle Inspector (PI) to evaluate those differences and develop the compliance to the relevant requirements of rules.

It also remains the responsibility of the operator and its PI to evaluate the corrective actions for those items not satisfactorily addressing compliance in the checklist prior to approval of the appropriate operation.

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**5.2 CCAR-91R2 Compliance Checklist (777F and 777-300ER)**

<b>Articles/Subject</b>	<b>Compliance</b>	<b>Remark/Limitation</b>
§91.401 Civil aircraft: Certifications required	Complies with Fuel venting and exhaust emissions requirements	Other requirements should be checked by PI.
§91.403 Instrument and Equipment for VFR operation	Complies	
§91.405 Instrument and Equipment for IFR operation	Complies	
§91.407 Instruments and Equipments for night and over-the-top operation	Complies	Requirements in operation should be checked by PI.
§91.409 Mach number indicator	Complies	
§91.411 Radio communication equipment	Complies	Requirements in operation should be checked by PI.
§91.413 Navigation equipment	Complies	Reference to CCAR91 Appendix B, C, D for more information. Requirements in operation should be checked by PI.
§91.415 Emergency and life-saving equipment	Complies	
§91.417 Additional emergency and Life equipments for over water operation	Complies	
§91.419 Additional emergency and Life-saving equipment for rotorcraft over water flights	Not applicable	
§91.421 Additional emergency and Life-saving equipment for flights over designated land areas	Complies	Aerial flares is installed in each slide raft survival kit
§91.423 Oxygen equipment-operation at high altitude	Complies	Oxygen availability and duration computation per Flight Planning and Performance Manual (FPPM) should be checked by PI.
§91.425 Equipment for operation in icing conditions	Complies	
§91.427 ATC transponder and altitude reporting equipment	Complies	Requirements in operation should be checked by PI.



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<b>Articles/Subject</b>	<b>Compliance</b>	<b>Remark/Limitation</b>
§91.429 Altitude alerting system or device: Turbojet-powered civil airplanes.	Complies	Requirements in operation should be checked by PI.
§91.431 Weather radar	Complies	Requirements in operation should be checked by PI.
§91.433 Flight recorder	Complies, except Datalink communication recording capability (Boeing has petitioned the FAA for relief from this requirement). The option for Datalink communication recording capability became available on 777 line number 858.	1. It is the responsibility of PI for acceptance of the deviation/exemption or to check optional equipment installation. 2. Requirements in operation should be checked by PI.
§91.435 Emergency locator transmitter	Complies	Requirements in operation should be checked by PI.
§91.437 Terrain awareness and warning system.	Complies	Requirements in operation should be checked by PI.
§91.439 Traffic Alert and Collision Avoidance equipment and use	Complies	Requirements in operation should be checked by PI.
§91.441 Radiation indicator	Not applicable	The 777F and 777-300ER has a maximum operating altitude of 43,100 feet
<b>Appendix B</b> Category II Operations: Manual, Instruments, Equipment, and Maintenance	Complies	The 777F and 777-300ER has the capability up to CAT IIIb operations. Requirements in operation should be checked by PI.
<b>Appendix C</b> Operations within airspace designated as Minimum Navigation Performance Specification Airspace.	Complies for following RNP operations: --Oceanic/Remote 4.0 NM --Enroute Domestic 2.0 NM --Terminal Areas 1.0 NM --Takeoff 1.0 NM --Approach 0.5 NM	Reference to AFM for more information. Requirements in operation should be checked by PI.
<b>Appendix D</b> Operations in Reduced Vertical Separation Minimum(RVSM)	Complies	Requirements in operation should be checked by PI.

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**5.3 CCAR-121R4 Compliance Checklist (777F and 777-300ER)**

§121.153 Aircraft certification and equipment requirements	Complies	777F and 777-300ER certified for transport category airplane
§121.155 Single-engine airplanes prohibited	Not applicable	777F and 777-300ER is a twin engine aircraft
§121.157 Airplane limitations: Type of route	180-minute (ETOPS) operations approved and Certified for ditching	It is the responsibility of PI for ETOPS operational approval
§121.161 Demonstration of Emergency Evacuation Procedures	777F not applicable. 777-300ER has completed a Demonstration of Emergency Evacuation Procedures in compliance with 14 CFR 25.803.	1. 777F has less than 44 passengers 2. It is the responsibility of PI for conduct simulated ditching demonstration by operator
§121.213 Space of passenger seats	777F: not applicable 777-300ER: Complies with Boeing standards option	1. 777F has only 4 supernumerary seats 2. If other than Boeing standards option, it is the responsibility of PI to check the conformity.
§121.215 Carriage of cargo in passenger compartments	777F: Not applicable 777-300ER: compliance	Requirements in operation should be checked by PI.
§121.217 Carriage of cargo in cargo compartments	777F: Not applicable 777-300ER: compliance	Requirements in operation should be checked by PI.
§121.301 General	Complies	Requirements in operation should be checked by PI.
§121.305 Airplane instruments and equipment	Complies	
§121.307 Engine instruments	Complies	
§121.308 Lavatory fire protection	Complies	
§121.309 Emergency equipment	Complies	Requirements in operation should be checked by PI.
§121.310 Additional emergency equipment	Complies	
§121.311 Seats, safety belts, and shoulder harnesses	Complies	Requirements in operation should be checked by PI.
§121.312 Materials for compartment interiors	Complies	
§121.313 Miscellaneous equipment	Complies if only crewmembers on board	The supernumerary compartment is accessible from the

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		flight compartment through a curtain
§121.314 Cargo and baggage compartments	Complies	
§121.315 Cockpit check list	Complies	By electronic checklists Requirements in operation should be checked by PI.
§121.316 Fuel tanks	Complies	
§121.317 Passenger notification	Complies	Requirements in operation should be checked by PI.
§121.318 Public address system	Complies	Two-way call and communication is provided between the supernumerary compartment and the flight compartment, crew rest and main deck cargo compartment
§121.319 Crewmember interphone system	Complies	As above
§121.320 Altitude holding and warning system	Complies	
§121.323 Instruments and equipment for operations at night	Complies	
§121.325 Instruments and equipment for operations under IFR	Complies	
§121.327 Supplemental oxygen for life support: Reciprocating engine powered airplanes	Not applicable	
§121.329 Supplemental oxygen for life support: turbine engine powered airplanes	Complies	Requirements in operation should be checked by PI.
§121.331 Supplemental oxygen for emergency descent and for first aid for reciprocating engine powered airplanes with pressurized cabins	Not applicable	
§121.333 Supplemental oxygen for emergency descent and for first aid for turbine engine powered airplanes with pressurized cabins	Complies	1. Flight Planning and Performance Manual (FPPM) for dispatch pressure calculation for the duration required 2. Requirements in operation should be checked by PI.

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§121.335	Oxygen Equipment standards	Complies	
§121.337	Protective breathing equipment	Complies	Requirements in operation should be checked by PI.
§121.339	Emergency equipment for over water operations	Complies	Requirements in operation should be checked by PI.
§121.341	Equipment for operations in icing conditions	Complies	
§121.342	Pitot heat indication systems	Complies	
§121.343	Flight recorders	Complies, except Datalink communication recording capability (Boeing has petitioned the FAA for relief from this requirement). The option for Datalink communication recording capability became available on 777 line number 858.	1. It is the responsibility of PI for acceptance of the deviation/exemption or to check optional equipment installation. 2. Requirements in operation should be checked by PI.
<del>§121.344</del>	<del>Quick Access Recorder or equivalent equipment</del>	Complies	Removed to §121.352 in CCAR-121R4.
§121.345	Radio equipment	Complies	Requirements in operation should be checked by PI.
§121.346	Air ground two way data link communication system	Not applicable	
§121.347	Radio equipment for operations under VFR over routes navigated by piloting	Complies	
§121.349	Radio equipment for operations under IFR or for operations under VFR over routes not navigated by piloting	Complies	Requirements in operation should be checked by PI.
§121.351	Radio equipment for extended over water operations and for certain other operations	Complies	Requirements in operation should be checked by PI.
§121.352	Quick Access Recorder or equivalent equipment	Complies	Requirements in operation should be checked by PI.

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§121.353 Emergency equipment for operations over uninhabited terrain areas	Complies	Aerial flares is installed in each slide raft survival kit Requirements in operation should be checked by PI.
§121.354 Terrain awareness and warning system	Complies	
§121.355 Equipment for operations use specialized means of navigation	Complies	777F is certified for long-range navigation using the air data inertial reference system (ADIRS) as the sole source for navigation data in the flight management computer system
§121.356 Airborne Collision Avoidance System (ACAS)	Complies	
§121.357 Airborne weather radar equipment requirements	Complies	Requirements in operation should be checked by PI.
§121.358 Low altitude windshear system equipment requirements	Complies	
§121.359 Cockpit voice recorders	Complies	Requirements in operation should be checked by PI.
§121.360 Ground proximity warning / glide slope deviation alerting system	Complies	Requirements in operation should be checked by PI.
§121.361 Language requirement for placards and markings	Complies	Require further check by PI before operation
§121.589 Forward Observer's seat for En route inspections	Complies	
§121 Appendix B First Aid Kits and Emergency Medical Kits	First Aid Kit does not contain all of these items. Emergency Medical Kits not installed	1. No complies in the quantity of roller bandages, the tourniquet, and burn salve for external use. It is operator responsibility for the correction. 2. Supernumeraries not considered passengers
§121 Appendix H Extended range operation with two engine airplanes (ETOPS)	180-minute (ETOPS) operations approved	It is the responsibility of PI for ETOPS operational approval

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<b>§121 Appendix I</b> Doppler Radar and Inertial Navigation System (INS)	Certified for long-range navigation using the air data inertial reference system (ADIRS)	Requirements in operation should be checked by PI.
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**5.4 CCAR-135 Compliance Checklist**

Not applicable.

## Section 6: Other Evaluation Items

### 6.1 Forward Observer Seat

Based on FAA FSB Report and compliance statement submitted by Boeing, CAAC AEG concluded that the Forward Observer's Seat of Boeing 777F and 777-300ER is considered to have met the requirements of AC-121-28.

Modifications to the above facilities from the original specifications will need approval by the responsible Principle Inspector (PI) of CAAC, additional analysis, demonstrations, proof of concept testing, differences documentation, or other evidence may be required.

### 6.2 Flight Crew Sleeping Quarters

#### **777F:**

Based on FAA FSB Report and compliance statement submitted by Boeing, CAAC AEG concluded that the Flightcrew Sleeping Quarters and Rest Facilities of Boeing 777F is considered to have met the requirements of AC-121-008, however specific operational approval for an operator to use the Flightcrew Sleeping Quarters is still required

#### **777-300ER:**

Based on FAA FSB Report and compliance statement submitted by Boeing, CAAC AEG concluded that the Overhead Flight Crew Rest (OFCR) facility of Boeing 777-300ER is considered to have met the requirements of AC-121-008, however specific operational approval for an operator to use the OFCR is still required, and following requirements should be considered:

#### Occupancy

Only approved crewmembers, trained in OFCR evacuation procedures, may occupy the OFCR. Clear definition of "crewmembers" allowed to occupy the OFCR must be specified in the operational approval to use this facility.

#### Rescue and Emergency Evacuation

Operators should have written procedures regarding rescue and evacuation pertaining to occupants of the OFCR compartment, (if OFCR is used for Taxi, Takeoff or Landing (TTL)). As a minimum the following is needed:

- For planned evacuations, OFCR occupants should be relocated to the main deck prior to landing if seats are available and time permits.
- If an in-flight emergency occurs where an evacuation is possible, and the situation permits, the crew must inform the appropriate Air Traffic Services Unit that there is

an occupied OFCR on board. This information should include the number of occupants and the location of the OFCR on board.

- At least one cabin crew member is given responsibility to ensure occupants of the OFCR are evacuated if an evacuation command is given.

#### Training - Occupants

As a minimum, prior to occupying the OFCR, crewmembers must be familiarized with the conditions for occupancy and the safety provisions and equipment of the OFCR facility, to include the following:

- Maximum allowable occupancy for TTL and in flight
- Fire extinguishers and smoke hoods (fire fighting procedures)
- Emergency oxygen (decompression procedures)
- Primary and secondary escape routes (evacuation procedures)
- Reminder that Flight Attendants will provide further direction after reviewing the outside conditions
- Communication system
- Occupant use of seat and ancillary equipment, seat belts and bunk restraints during turbulence and critical phases of flight
- Restrictions prohibiting bunk use during takeoff and landing, (as appropriate)

#### Procedures and Training - Flight Attendant

OFCR familiarization must also be included in flight attendant training to include the above items and additional responsibilities for ensuring the OFCR, if occupied, is evacuated during an airplane evacuation.

Procedures must be developed and included in training for the following:

- Closing the OFCR door after takeoff, and opening the door prior to landing.
- Requirement to minimize rest disruptions
- Prevention of unauthorized entry to the OFCR compartment

Modifications to the above facilities from the original specifications will need approval by the responsible Principle Inspector (PI) of CAAC, additional analysis, demonstrations, proof of concept testing, differences documentation, or other evidence may be required.

### **6.3 Electronic Flight Bag**

Class 3 Electronic Flight Bag (EFB) Block Point 4 is an optional configuration for 777F and 777-300ER.

This paragraph is the formal statement that CAAC AEG has validated the Flight Standardization Board Report (FSBR) for Boeing Class 3 Electronic Flight Bag (EFB) Block



Point 4 issued by FAA, which gives the operation procedure, data revision process, pilot training, checking, and currency specifications for operating applicable Boeing Airplane using the EFB.

The specific operational approval for an operator to use the EFB is still required.

**Find FAA FSB Report here:**

<http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=FSB%20Reports>

#### **6.4 Head-up Display/Enhanced Flight Vision System**

Not applicable.

#### **6.5 Emergency Evacuation Demonstration**

777 Series airplane full capacity emergency evacuation demonstration has been conducted in the early type of 777-200. When the 777-300 was type certificated, an evacuation rate test of the 777-300 overwing Type A exit and associated escape path and slide was conducted. 777-300ER compliance was shown by computation based on 777-300.

As concluded by reference to the FAA determination, CAAC AEG considers 777-300ER has been shown to be in compliance with the full capacity emergency evacuation demonstration during the type certification process.

As the output of emergency evacuation demonstration, emergency evacuation procedure was approved by FAA, and it should be consider the base of operator to develop their own procedures.

The Boeing Flight Attendant Manual (FAM) provides evacuation system component description and evacuation guidelines. Boeing offers a video entitled “Flight Attendant Evacuation Techniques” that can further assist operators in developing their own evacuation procedures.