

# $Civil \ Aviation \ Administration \ of \ China \ (CAAC)$

**Aircraft Evaluation Group (AEG)** 

# **Aircraft Evaluation Report**

For

**Cessna Model 680 (CE-680)** 

**Revision 0 Date: 23/12/2013** 

**Manufacturer: Cessna Aircraft Company** 

# **Revision Record & Approval**

Revision No.	Section	Highlight	Date
Rev. 0	All	Initial issue (Conversion format of CAAC AEG evaluation determination)	December 23, 2013

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#### **Foreword**

Cessna Model 680 (CE-680) aircraft was initially type certificated by Federal Aviation Administration (FAA) on June 2, 2004, and the validated Type Certificate was issued by CAAC on April 07, 2010.

The Cessna Model 680 aircraft was evaluated by CAAC AEG in January 2010.

This report was first drafted in JAN 2013 to cover all the previous AEG evaluation determinations for Cessna Model 680 which were issued in 2010, and since this report is formally issued, the individual CAAC AEG validation and approval letters for Cessna model 680 (AEG-CE680-2010001 to 2010005) are cancelled.

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# **Section 1: Pilot Type Rating and Qualification Specification**

#### 1.1 Statement and Explanation

This section is the formal notification that the CAAC has conducted Flight Standardization Board (FSB) evaluation for Cessna CE-680 based on the Flight Standardization Board Report (FSBR) for Cessna Model 680 (CE-680) issued by FAA on May 12, 2006., 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 aircraft.

Alternate means of compliance to the requirements of CCAR 61, 135, 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 Report here:

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

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#### 1.2 Pilot Type Rating and Licence Endorsement

Upon the FSB evaluation, the Pilot Type Rating for CE-680 is listed as follows:

Manufacturer	Aircraft Type	Pilot Type Rating
Cessna Aircraft Company	Cessna Model 680 (CE-680)	CE-680

#### **License endorsement:**

"CE-680" for getting a type rating from Cessna CE-680, and checking records should also be shown.

#### 1.3 ODR and MDR

Not applicable.

#### 1.4 Specification for Training

The training courses proposed by Wichita Cessna Learning Center of Flight Safety International for CE-680 are as following, it is considered as manufacturer recommended pilot training program and have to be considered as minimum:

- Citation Sovereign (CE-680) Initial Syllabus
- Citation Sovereign (CE-680) Recurrent Syllabus

Note 1: The proposed type rating course is suitable for pilots with previous experience in operating similar EFIS/FMS aircraft. Pilot without such experience should receive additional pre-course training.

Note 2: Above mentioned training courses are available by request to Cessna.

Specifications for particular emphasis elements during training for pilot flying CE-680 as following:

- Interpretation and use of Crew Alerting System (CAS)
- Use and philosophy of the Emergency/Abnormal Checklist
- Avionics system and associated failures
- High level stall training in cruise configuration including the use of speed brakes

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### 1.5 Specification for Checking

As required by CCAR Part 61 and 135.

### 1.6 Specification for Currency

As required by CCAR Part 61 and 135.

### 1.7 Specification for Flight Simulation Training Devices

All training devices should be qualified as per CCAR-60.

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# **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 CE-680 aircraft based on the Master Minimum Equipment List (MMEL) for Cessna Model 680 (CE-680) issued by FAA on August 31, 2004 (Rev. Original), 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 issued by FAA can be used, as the basis, by Chinese operators to develop their Minimum Equipment List (MEL) for above aircrafts.

It is the responsibility of Chinese operators and the Principle Inspectors (PI) to check and verify the exact CCAR requirements for any of the contents marked or referenced with FAA regulatory document or its articles.

#### Find the FAA MMEL here:

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

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# **2.2 CAAC Supplemental**

Not applicable.

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### **Section 3: Schedule Maintenance Requirements**

#### 3.1 Statement and Explanation

This section is the formal notification that CAAC AEG has conducted Maintenance Review Board (MRB) evaluation based on Cessna Model 680 (CE-680) Maintenance Review Board Report revision 04 approved by 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 aircrafts.

It is the responsibility of Chinese operators and the Principle Inspectors (PI) to check and verify the exact CCAR requirements for any of the contents marked or referenced with FAA regulatory document or its articles.

#### MRBR document distribution:

By Cessna Aircraft Company by Paper, CD/DVD and also available in website.

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# 3.2 CAAC Supplemental

Not applicable.

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

#### 4.1 Statement and Explanation:

This section is the formal notification that the CAAC AEG has conducted evaluation of the operational and continued airworthiness instructions for Cessna Model 680 (CE-680) Aircraft based on the relevant policies and procedures of Cessna.

Hereby, the Operational & Continued Airworthiness Instructions listed in the attachment was found acceptable by CAAC AEG, and will gives the necessary guidance for properly operating and maintaining Cessna CE680 Aircraft 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 through website: http://aeg.caac.gov.cn/.

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

By Cessna either in hardcopy, CD/DVD or website, except engine manuals are distributed by engine manufacturer directly to operators.

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#### **4.2** List of Operational and Continued Airworthiness Instructions

Manual	Reference No.	Description	Revision/Date
MM	Not available	Model 680 Maintenance Manual	Rev.15 and as revised
SRM	Not available	Model 680 Structural Repair	Rev.1 and as revised
		Manual	
NDT	Not available	Model 680 Nondestructive Testing	Original issue and as
		Manual	revised
ITEM	Not available	Model 680 Illustrated Tool &	Rev.2 and as revised
		Equipment Manual	
CMM	Not available	Model 680 Component	Rev.1 and as revised
		Maintenance Manual	
IPC	Not available	Model 680 Illustrated Parts Catalog	Rev.14 and as revised
WDM	Not available	Model 680 Wiring Diagram Manual	Rev.2 and as revised
OM	Not available	Model 680 Operating Manual	Rev.1 and as revised
CLEAP	68CLEAP-XX	Pilots abbreviated Checklist Model	Rev.7 and as revised
		680, Abnormal/Emergency	
		Procedures for 680-0001 and on	
CLNP	68CLNP-XX	Pilots abbreviated Checklist Model	Rev.7 and as revised
		680, Normal Procedures for	
		680-0001 and on	
WB	68WB-XX	Model 680 Weight & Balance	Rev.4 and as revised
		Manual	
MELCL	Not available	MMEL Operational and	Original issue and as
		Maintenance Procedures Guide	revised

- Note 1: The above technical publication will be not customized by Cessna, the operator should carefully check the applicability before reference to some contents of the manual.
- Note 2: For optional equipment installation developed by Cessna, the operation document as defined in Flight Manual Supplemental, and maintenance instructions included in the general technical publications as above.
- Note 3: Cessna issue Service Document only for instructions of modification and separate ICA provide related maintenance instructions. ICA also provides temporary manual amendment no related to modifications.
- Note4: Amendment to Flight Manual, Structural Repair Manual and chapter 4 of Maintenance Manual should be approved by FAA.

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### **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 the Cessna Model 680 (CE680) aircraft for operating under CCAR-91R2 and CCAR-135, which is based on the following aircraft configuration:

- FAA Type Certificate Data Sheet NO. T00012WI, Revision5.

This 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 PI by operators.

When the aircraft configuration differs from the above stated aircraft configuration, it is the responsibility of the Operator and its CAAC 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 CAAC PI to evaluate the corrective actions for those items not satisfactorily addressing compliance in the checklist prior to approve the appropriate operation.

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# **5.2 CCAR-91R2 Compliance Checklist**

Articles/Subject	Compliance	Remark/Limitation
§91.401 Civil aircraft: Certifications required	Complies with Fuel venting and exhaust emissions requirements	Other requirements should be checked by PI.
<b>§91.403</b> Instrument and Equipment for VFR operation	Complies	Other requirements should be checked by PI
<b>§91.405</b> Instrument and Equipment for IFR operation	Complies	
§91.407 Instruments and Equipments for night and	Complies except Flashlight required by 91.407 a	Requirements in operation should be checked by
over-the-top operation	(5) is not standard equipment.	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	Requirements in operation should be checked by PI.
§91.415 Emergency and life-saving equipment	Complies	The number of First aid kits required by 91.415 (a) and the mark of break-in points should be checked by PI.
<b>§91.417</b> Additional emergency and Life	Life jacket for each seat is standard equipment.	Life saving rafts and related equipments required
equipments for over water operation		as 91.417 c should be checked by PI in accordance
		with actual operating condition.
<b>§91.419</b> Additional emergency and Life-saving	Not applicable	
equipment for rotorcraft over water flights		
<b>§91.421</b> Additional emergency and Life-saving equipment for flights over designated land areas	Does not Comply	Should be checked by PI in accordance with actual operating condition.
§91.423 Oxygen equipment-operation at high	Complies	Oxygen availability and duration computation per

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Articles/Subject	Compliance	Remark/Limitation
altitude		AFM should be checked by PI.
§91.425 Equipment for operation in icing	Complies	
conditions		
<b>§91.427</b> ATC transponder and altitude reporting	Complies	Requirements in operation should be checked by
equipment		PI.
<b>§91.429</b> Altitude alerting system or device:	Complies	Requirements in operation should be checked by
Turbojet-powered civil airplanes.		PI.
§91.431 Weather radar	Complies	
<b>§91.433</b> Flight recorder	FDR is optional equipment	It is the responsibility of PI for checking of the
		optional installation by operator.
		Requirements in operation should be checked by
		PI.
<b>§91.435</b> Emergency locator transmitter	Complies	Requirements in operation should be checked by
		PI.
<b>§91.437</b> Terrain awareness and warning system.	Complies	Requirements in operation should be checked by
		PI.
<b>§91.439</b> Traffic Alert and Collision Avoidance	Complies	Requirements in operation should be checked by
equipment and use		PI.
<b>§91.441</b> Radiation indicator	Not applicable	The AFM maximum operating altitude 47000ft.
Appendix B Category II Operations: Manual,	Complies	Requirements in operation should be checked by
Instruments, Equipment, and Maintenance		PI.
Appendix C Operations within airspace	Complies	Requirements in operation should be checked by
designated as Minimum Navigation Performance		PI.
Specification Airspace.		
Appendix D Operations in Reduced Vertical	Complies	Requirements in operation should be checked by

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Articles/Subject	Compliance	Remark/Limitation
Separation Minimum(RVSM)		PI.

### **5.3 CCAR-121R4 Compliance Checklist**

Not Applicable.

# **5.4 CCAR-135 Compliance Checklist**

Articles/Subject	Compliance	Remark/Limitation
§135.75 Inspectors credentials: admission to pilots'	No forward observer seat (jump seat) in cockpit.	The suitability of the location of the passenger seat
compartment		and the headset or speaker for use in conducting en
		route inspections is determined by the PI.
§135.146 Emergency locator transmitters	One automatic ELT is standard equipment.	It is responsibility of PI for checking of at least
		two ELT required during extended overwater
		operations.
§135.149 Dual controls required.	Complies	
§135.151 Equipment requirements: General.	Complies	
§135.153 Public address and crewmember	Not applicable	Maximum approved passenger seating
interphone systems.		configuration of 12.
§135.155 Flight Data Recorder	FDR is optional equipment	It is the responsibility of PI for checking of the
		optional installation by operator.
		Requirements in operation should be checked by
		PI.
§135.157 Cockpit voice recorders.	Complies	Requirements in operation should be checked by
		PI.
§135.159 Ground proximity warning system	Complies	Requirements in operation should be checked by

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Articles/Subject	Compliance	Remark/Limitation
		PI.
<b>§135.161</b> Terrain awareness and warning system(TAWS)	Complies	Requirements in operation should be checked by PI.
<b>§135.163</b> Fire extinguishers: Passenger carrying aircraft.	Complies	
§135.165 Oxygen equipment requirements.	Complies	Oxygen availability and duration computation per AFM should be checked by PI.
<b>§135.167</b> Equipment requirements: Carrying passengers under VFR at night or under VFR over the top conditions	Complies except Flashlight required by 135.167 (f) (3) is not standard equipment.	
<b>§135.169</b> Radio and navigational equipment: Carrying passengers under VFR at night or under VFR over the top.	Complies	
<b>§135.171</b> Equipment requirements: Aircraft carrying passengers under IFR	Complies	
<b>§135.173</b> Radio and navigational equipment requirement for extended overwater or IFR operations.	Complies	
<b>§135.175</b> Emergency equipment requirements for extended overwater operations.	Life raft is not standard equipment.	It is the responsibility of PI for checking of life raft installation as actual operation.
§135.177 Shoulder harness installation requirement at flight crewmember stations.	Complies	Requirements in operation should be checked by PI.
<b>§135.179</b> Airborne thunderstorm detection equipment requirements.	Complies	Requirements in operation should be checked by PI.
§135.181 Airborne weather radar equipment	Complies	Requirements in operation should be checked by

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Articles/Subject	Compliance	Remark/Limitation
requirements.		PI.
§135.183 Emergency equipment requirements for	Not applicable	Maximum approved passenger seating
aircraft having a passenger seating configuration		configuration of 12.
of more than 19 passengers.		
§135.185 Additional emergency equipments	Not applicable	Maximum approved passenger seating
		configuration of 12.
§135.189 Airborne Collision Avoidance System	Not applicable	Maximum approved passenger seating
(ACAS II )		configuration of 12.
§135.191 Performance requirements: Aircraft	Complies	Requirements in operation should be checked by
operated over the top or in IFR conditions		PI.
§135.193 Land aircraft operated over water	Complies	Requirements in operation should be checked by
		PI.
§135.197 Language requirement for placards and	Complies	Require further check by PI before operation
markings		
§135.199 Pitot heat indication systems.	Complies	Requirements in operation should be checked by
		PI.
§135.203 Materials for compartment interiors	Complies	

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# **Section 6: Other Evaluation Items**

Not Applicable

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# Appendix A: CAAC AEG Team and Point of Contact

#### A.1: CAAC AEG Team

Mr. Zhang Ling Zhi Deputy Chief, Aircraft Evaluation Division, Flight Standards

Department

Mr. Wang Jin Engineer, AEG Office of Civil Aviation Safety and Technology

Center

Mr. Tan Yun Feng Director, AEG Office of Shenyang Aircraft Airworthiness

**Certification Center** 

Mr. Tong Yu Operation Inspector, Heilongjiang Safety Surveillance Bureau

#### A.2: Cessna Point of Contact

Mr. Travis Tyler Airworthiness Engineer

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