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Federal Aviation Administration  
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## Flight Standardization Board Report

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Revision: 1  
Date: 07/24/2020

Manufacturer:  
**The Boeing Company**

Type Certificate Data Sheet (TCDS)	TCDS Identifier	Marketing Name	Pilot Type Rating
A-669	DC3C-SC3G, DC3A-S1C3G DC3C-S1C3G, DC3C-S4C4G DC3C-R-1830-90C DC3D-R-1830-90C	DC-3TP/65/67	DC-3TP

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## 1. RECORD OF REVISIONS

Revision Number	Sections(s)	Page(s) Affected	Date
Original	ALL	ALL	06/22/1993
1	ALL	ALL	07/24/2020

## 2. INTRODUCTION

Aircraft Evaluation Groups (AEG) are responsible for working with aircraft manufacturers and modifiers, during the development and Federal Aviation Administration (FAA) certification of new and modified aircraft to determine:

- 1) The pilot type rating;
- 2) Flightcrew member training, checking, and currency requirements; and
- 3) Operational suitability.

This report lists those determinations for use by:

- 1) FAA employees who approve training programs;
- 2) FAA employees and designees who certify airmen; and
- 3) Aircraft operators and training providers, to assist them in developing their flightcrew member training, checking, and currency.

## 3. HIGHLIGHTS OF CHANGE

The purpose of revision 1 is to reformat the Flight Standardization Board Report (FSBR). Major modifications include the deletion of currency levels depicted in the Master Differences Requirements (MDR) table, renaming of Operator Differences Tables to Differences Tables, and deleting regulatory repetitive information.

## 4. BACKGROUND

The Transport Aircraft Long Beach AEG formed a Flight Standardization Board (FSB) that evaluated the DC-3TP/65/67 as defined in FAA Type Certificate Data Sheet (TCDS) #A-669. The evaluations were conducted in 1993 using methods described in FAA Advisory Circular (AC) 120-53, Crew Qualification and Pilot Type Rating Requirements for Transport Category Aircraft.

Supplemental Type Certificate STC SA3820SW with Pratt & Whitney Canada PT6A-65AR or PT6A-67R engines resulted in the conversion of the DC-3 aircraft to twin engine turbo-prop aircraft.

Supplemental Type Certificate STC SA4840NM with Pratt & Whitney Canada PT6A-67R engines resulted in the conversion of the DC-3 aircraft to twin engine turbo-prop aircraft.

## 5. ACRONYMS

- 14 CFR Title 14 of the Code of Federal Regulations
- AC Advisory Circular
- ACFT Aircraft
- ACS Airman Certification Standards
- AEG Aircraft Evaluation Group
- ATP Airline Transport Pilot
- AV Audiovisual Presentation
- CPT Cockpit Procedures Trainers
- CFR Code of Federal Regulations
- FAA Federal Aviation Administration
- FDOS Flight Deck Observer Seat
- FFS Full Flight Simulator
- FSB Flight Standardization Board
- FSBR Flight Standardization Board Report
- FSTD Flight Simulation Training Device
- FTD Flight Training Device
- HO Handout
- HUD Head-Up Display
- ICBI Interactive Computer-Based Instruction
- MDR Master Differences Requirements
- MFF Mixed Fleet Flying
- NAS National Airspace System
- POI Principal Operations Inspector
- PTT Part Task Trainers
- STC Supplemental Type Certificate
- SU Stand-Up Instruction
- TC Type Certificate
- TCBI Tutorial Computer-Based Instruction
- TCDS Type Certificate Data Sheet

## 6. DEFINITIONS

These definitions are for the purposes of this report only.

- 6.1 Base Aircraft.** An aircraft identified for use as a reference to compare differences with another aircraft.
- 6.2 Current.** A crewmember meets all requirements to operate the aircraft under the applicable operating part.
- 6.3 Differences Tables.** Describes the differences between a pair of related aircraft and the minimum levels operators must use to conduct differences training and checking of crewmembers. Differences levels range from A to E.

- 6.4 Master Differences Requirements (MDR).** Specifies the highest training and checking differences levels between a pair of related aircraft derived from the Differences Tables.
- 6.5 Mixed Fleet Flying (MFF).** The operation of a base aircraft and one or more related aircraft for which credit may be taken for training, checking, and currency events.
- 6.6 Operational Evaluation.** An AEG process to determine pilot type rating, minimum crewmember training, checking and currency requirements, and unique or special airman certification requirements (e.g., specific flight characteristics and no-flap landing).
- 6.7 Operational Suitability.** An AEG determination that an aircraft or system may be used in the National Airspace System (NAS) and meets the applicable operational regulations (e.g., Title 14 of the Code of Federal Regulations (14 CFR) parts 91 and 135).
- 6.8 Qualified.** A crewmember holds the appropriate airman certificate and ratings as required by the applicable operating part.
- 6.9 Related Aircraft.** Any two or more aircraft of the same make with either the same or different type certificates (TC) that have been demonstrated and determined by the Administrator to have commonality.
- 6.10 Seat Dependent Tasks.** Maneuvers or procedures using controls that are accessible or operable from only one flightcrew member seat.
- 6.11 Special Emphasis Area.** A training requirement unique to the aircraft, based on a system, procedure, or maneuver, which requires additional highlighting during training. It may also require additional training time, specialized training devices, or training equipment.
- 6.12 Specific Flight Characteristics.** Maneuver or procedure with unique handling or performance characteristics that the FSB has determined must be checked.

## **7. PILOT TYPE RATING**

- 7.1 Type Rating.** The Boeing DC-3TP/65/67 aircraft type rating designation is DC-3TP.
- 7.2 Common Type Ratings.** Not applicable.
- 7.3 Military Equivalent Designations.** Military aircraft that qualify for the DC-3TP type rating designation can be found at [www.faa.gov](http://www.faa.gov/licenses_certificates/airmen_certification/) under “Licenses & Certificates,” “Airmen Certification,” “Online Services,” “Aircraft Type Rating Designators.” This webpage is kept up-to-date and can be found at [http://www.faa.gov/licenses\\_certificates/airmen\\_certification/](http://www.faa.gov/licenses_certificates/airmen_certification/).

## 8. RELATED AIRCRAFT

**8.1 Related Aircraft on Same TCDS.** Not applicable.

**8.2 Related Aircraft on Different TCDS.** Not applicable.

## 9. PILOT TRAINING

**9.1 Airman Experience.** Airmen receiving initial Boeing DC-3TP/65/67 training should have prior experience in multi-engine and multi-crew transport category turboprop aircraft, advanced aircraft systems, and high altitude operations. Pilots without this experience may require additional training.

### 9.2 Special Emphasis Areas.

**9.2.1** Pilots must receive special emphasis on the following areas during initial and recurrent ground training:

**9.2.1.1** Hazardous Weather/Winter Operations. Proper precautions and procedures regarding hazardous weather/winter operations which may be unique to DC-3TP/65/67 aircraft should be addressed. For example, topics such as rudder effectiveness and braking characteristics when stopping on slippery runways, flight characteristics of the DC-3TP/65/67 with ice buildup on the leading edge of the wing, potential top surface wing icing due to cold fuel, and other topics are appropriate for incorporation in training programs. This item must be included in initial and recurrent training.

**9.2.2** Pilots must receive special emphasis on and perform the following areas during flight training:

**9.2.2.1** None.

**9.3 Specific Flight Characteristics.** Maneuvers/procedures required to be checked as referenced in the Airline Transport Pilot (ATP) and type rating for airplane Airman Certification Standards (ACS), and/or 14 CFR part 121, appendix F.

There are no specific flight characteristics.

**9.4 Seat Dependent Tasks.** There are no seat dependent tasks.

**9.5 Regulatory Training Requirements Which Are Not Applicable to the Boeing DC-3TP/65/67.** None.

**9.6 Flight Simulation Training Devices (FSTD).** There are no specific systems, procedures, or maneuvers that are unique to the Boeing DC-3TP/65/67 that require a specific FSTD for training.

**9.7 Training Equipment.** There are no specific systems or procedures that are unique to the Boeing DC-3TP/65/67 that require specific training equipment.

**9.8 Differences Training Between Related Aircraft.** Not applicable.

## **10. PILOT CHECKING**

**10.1 Landing from a No-Flap or Nonstandard Flap Approach.** The probability of flap extension failure on the Boeing DC-3TP/65/67 is not extremely remote due to system design. Therefore, demonstration of a no flap approach and landing during pilot certification or a part 61, § 61.58, part 121, § 121.441 proficiency check, part 91, § 91.1065 competency check, 14 CFR part 125, § 125.287 competency check, or part 135, § 135.293 competency check is required.

Refer to FAA Order 8900.1, Volume 5, Airman Certification, when the test or check is conducted in an aircraft versus an FFS.

**10.2 Specific Flight Characteristics.** Maneuvers or procedures required to be checked as referenced in the ATP and type rating for Airplane ACS, and/or part 121 appendix F.

There are no specific flight characteristics.

**10.3 Seat Dependent Tasks.** There are no seat dependent tasks.

**10.4 Other Checking Items.** Not applicable.

**10.5 FSTD.** There are no specific systems, procedures, or maneuvers that are unique to the Boeing DC-3TP/65/67 that require a specific FSTD for checking.

**10.6 Equipment.** There are no specific systems or procedures that are unique to the Boeing DC-3TP/65/67 that require specific equipment.

**10.7 Differences Checking Between Related Aircraft.** There are no checking differences.

## **11. PILOT CURRENCY**

There are no additional currency requirements for the Boeing DC-3TP/65/67 other than those already specified in 14 CFR parts 61, 121, 125, and 135.

**11.1 Differences Currency Between Related Aircraft.** There are no differences currency requirements.

## **12. OPERATIONAL SUITABILITY**

The Boeing DC-3TP/65/67 is operationally suitable for operations under parts 91, 121, 125, and 135.

## 13. MISCELLANEOUS

- 13.1 Flight Deck Observer Seat (FDOS).** The FDOS in the Boeing DC-3TP/65/67 is part of the type certificated design. The FSB evaluated the Forward Observer Seat using the criteria in AC 120-83, Flight Deck Observer Seat and Associated Equipment, and found that it is operationally suitable for 14 CFR §§ 121.581, 125.317(b) and 135.75(b).
- 13.2 Landing Minima Categories.** The Boeing DC-3TP/65/67 is considered a Category B aircraft for the purposes of determining “straight-in landing weather minima” (refer to 14 CFR part 97, § 97.3).
- 13.3 Normal Landing Flaps.** The Boeing DC-3TP/65/67 normal “final flap setting” per § 91.126(c) is flaps 39.

## APPENDIX 1 DIFFERENCES LEGEND

### Training Differences Legend

Differences Level	Type	Training Method Examples	Conditions
A	Self-instruction	<ul style="list-style-type: none"> <li>• Operating manual revision (handout (HO))</li> <li>• Flightcrew operating bulletin (HO)</li> </ul>	<ul style="list-style-type: none"> <li>• Crew has already demonstrated understanding on base aircraft (e.g., updated version of engine).</li> <li>• Minor or no procedural changes required.</li> <li>• No safety impact if information is not reviewed or is forgotten (e.g., different engine vibration damping mount).</li> <li>• Once called to attention of crew, the difference is self-evident.</li> </ul>
B	Aided instruction	<ul style="list-style-type: none"> <li>• Audiovisual presentation (AV)</li> <li>• Tutorial computer-based instruction (TCBI)</li> <li>• Stand-up instruction (SU)</li> </ul>	<ul style="list-style-type: none"> <li>• Systems are functionally similar.</li> <li>• Crew understanding required.</li> <li>• Issues need emphasis.</li> <li>• Standard methods of presentation required.</li> </ul>
C	Systems Devices	<ul style="list-style-type: none"> <li>• Interactive (full-task) computer-based instruction (ICBI)</li> <li>• Cockpit Procedures Trainers (CPT)</li> <li>• Part task trainers (PTT)</li> <li>• Level 4 or 5 flight training device (FTD 4-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Training can only be accomplished through systems training devices.</li> <li>• Training objectives focus on mastering individual systems, procedures, or tasks versus highly integrated flight operations or “real-time” operations.</li> <li>• Training devices are required to ensure attainment or retention of crew skills to accomplish more complex tasks usually related to aircraft systems.</li> </ul>
D	Maneuvers Devices	<ul style="list-style-type: none"> <li>• Level 6 or 7 flight training device (FTD 6-7)</li> <li>• Level A or B full flight simulator (FFS A-B)</li> </ul>	<ul style="list-style-type: none"> <li>• Training can only be accomplished in flight maneuver devices in a real-time environment.</li> <li>• Training requires mastery of interrelated skills versus individual skills.</li> <li>• Motion, visual, control-loading, and specific environmental conditions may be required.</li> </ul>
E	Level C/D FFS or Aircraft	<ul style="list-style-type: none"> <li>• Level C or D full flight simulator (FFS C-D)</li> <li>• Aircraft (ACFT)</li> </ul>	<ul style="list-style-type: none"> <li>• Motion, visual, control-loading, audio, and specific environmental conditions are required.</li> <li>• Significant full-task differences that require a high fidelity environment.</li> <li>• Usually correlates with significant differences in handling qualities.</li> </ul>

### Checking Differences Legend

Differences Level	Checking Method Examples	Conditions
A	None	None
B	<ul style="list-style-type: none"> <li>• Oral or written exam</li> <li>• Tutorial computer-based instruction (TCBI) self-test</li> </ul>	<ul style="list-style-type: none"> <li>• Individual systems or related groups of systems.</li> </ul>
C	<ul style="list-style-type: none"> <li>• Interactive (full-task) computer-based instruction (ICBI)</li> <li>• Cockpit Procedures Trainers (CPT)</li> <li>• Part task trainers (PTT)</li> <li>• Level 4 or 5 flight training device (FTD 4-5)</li> </ul>	<ul style="list-style-type: none"> <li>• Checking can only be accomplished using systems devices.</li> <li>• Checking objectives focus on mastering individual systems, procedures, or tasks.</li> </ul>
D	<ul style="list-style-type: none"> <li>• Level 6 or 7 flight training device (FTD 6-7)</li> <li>• Level A or B full flight simulator (FFS A-B)</li> </ul>	<ul style="list-style-type: none"> <li>• Checking can only be accomplished in flight maneuver devices in a real-time environment.</li> <li>• Checking requires mastery of interrelated skills versus individual skills.</li> <li>• Motion, visual, control-loading, and specific environmental conditions may be required.</li> </ul>
E	<ul style="list-style-type: none"> <li>• Level C or D full flight simulator (FFS C-D)</li> <li>• Aircraft (ACFT)</li> </ul>	<ul style="list-style-type: none"> <li>• Significant full-task differences that require a high fidelity environment.</li> </ul>

## APPENDIX 2 MASTER DIFFERENCES REQUIREMENTS (MDR) TABLE

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### MASTER DIFFERENCE REQUIREMENTS (MDR) TABLE

These are the minimum levels of training and checking required. Differences levels are arranged as training/checking.

<b>Related Aircraft ↓</b>	<b>Base Aircraft →</b>	DC-3
DC-3TP/65		A/A
DC-3TP/67		A/A

## **APPENDIX 3 DIFFERENCES TABLES**

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This section is reserved for future related aircraft.