

U.S. Department of Transportation Federal Aviation Administration _{Washington, DC}

Flight Standardization Board Report

Revision: 1 Date: XX/XX/XXXX

Manufacturer (Restricted Category Type Certificate Data Sheet Holder)

Skydance Blackhawk Operations, LLC

Type Certificate Data Sheet (TCDS)	TCDS Identifier	Marketing Name	Pilot Type Rating
R00022LA	UH-60A	Blackhawk	S-70

Approved by the Aircraft Evaluation Division Federal Aviation Administration Rotorcraft Branch, Aircraft Evaluation Division (AFS-140) Flight Standards Mail Stop 3 800 Independence Avenue, S.W. Washington, DC 20591

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1. RECORD OF REVISIONS

Revision Number	Section(s)	Date
Original	All	08/13/2024
1	1, 2, 3, 4, 5, 6, Appendix 3	XX/XX/XXXX

2. INTRODUCTION

The Aircraft Evaluation Division (AED) is 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 this revision is to update Appendix 3, Differences Tables and add minor editorial corrections in this Flight Standardization Board Report (FSBR).

4. BACKGROUND

Former military helicopters that have been sold to civilian entities are being used for firefighting and other special purpose operations. These helicopters have received a Restricted Category (RCAT) type certificate (TC).

The AED, Rotorcraft Branch (AFS-140) is in the process of conducting RCAT Special Project (SP) Flight Standardization Boards (FSB) for all aircraft listed on the FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, Pilot Certificate Aircraft Type Designations – Provisional Type Rating Designation for Airplane and Helicopter table.

After each FSBR is published, the corresponding TC holder is moved from the "Provisional Type Rating Helicopter table" to the FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, Pilot Certificate Aircraft Type Designations – Helicopter table.

A TC holder who amends an existing RCAT TC by adding a model is required to coordinate with the AED, Rotorcraft Branch (AFS-140) to schedule an FSB. The resulting FSBR will establish a type rating for the TC holder.

New RCAT TC holders of a UH-60A, EH-60A, HH-60L, or UH-60L, are required to coordinate with the AED, Rotorcraft Branch (AFS-140) to complete an FSB. The resulting updated FSBR will establish the type rating for the TC holder.

New RCAT TC holders will not be given a provisional type rating. To be added to the FAA Order 8900.1, Volume 5, Chapter 2, Section 19, Figure 5-88, Pilot Certificate Aircraft Type Designations – Helicopter table, they are required to complete the FSB process.

The AED's goal is to ensure Aircraft Certification and Flight Standards Services are mutually informed of product-specific continued operational safety issues and information. Any additional modifications to these RCAT Type Certificated aircraft may require the AED to update the FSBR.

In January 2024, the AED, Rotorcraft Branch formed a RCAT SP FSB that evaluated the Skydance Blackhawk Operations UH-60A as defined in FAA Type Certificate Data Sheet (TCDS) No. R00022LA. The FSB used the methods described in FAA Advisory Circular (AC) 120-53B Change 1, Guidance for Conducting and Use of Flight Standardization Board Evaluations. At the discretion of the FSB chairman, the T2 test was completed through analysis, without requiring an aircraft flight.

5. ACRONYMS

- 14 CFR Title 14 of the Code of Federal Regulations
- AC Advisory Circular
- AED Aircraft Evaluation Division
- AEO All-Engines-Operating
- AFCS Automatic Flight Control System
- ATA Air Transport Association
- ATP Airline Transport Pilot
- AV Audiovisual Presentation
- CPT Cockpit Procedures Trainer
- CRM Crew Resource Management
- DEC Digital Electronic Control
- ECU Electronic Control Unit
- EDECU Enhanced Digital Engine Control Unit
- EP Emergency Procedure
- FAA Federal Aviation Administration
- FFS Full Flight Simulator
- FSB Flight Standardization Board
- FSBR Flight Standardization Board Report
- FSTD Flight Simulation Training Device
- FTD Flight Training Device
- GE General Electric
- HO Handout
- ICBI Interactive Computer-Based Instruction

- IDGB Improved Durability Gearbox
 - LODA Letter of Deviation Authority
 - MDR Master Differences Requirements
 - NAS National Airspace System
 - OEI One-Engine-Inoperative
 - PTS Practical Test Standards
 - PTT Part Task Trainers
 - RCAT Restricted Category
 - SP Special Project
 - STC Supplemental Type Certificates
 - SU Stand-Up Instruction
 - TC Type Certificate
 - TCBI Tutorial Computer-Based Instruction
 - TCDS Type Certificate Data Sheet
 - U.S. United States
 - VFR Visual Flight Rules

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.** Describe the differences between a pair of related aircraft, and the minimum levels operators must use to conduct differences training and checking of flightcrew members. Differences levels range from A to E.
- **6.4 Master Differences Requirements (MDR).** Specifies the minimum levels of training and checking required between a pair of related aircraft, derived from the highest level in the Differences Tables.
- **6.5** Mixed Fleet Flying. 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.** The AED process to determine pilot type rating, minimum flightcrew member training, checking and currency requirements, and unique or special airman certification requirements (e.g., specific flight characteristics, no-flap landing).
- **6.7 Operational Suitability.** The AED 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 the Federal Regulations (14 CFR) parts 91, 121, 133, and 135).

- **6.8 Qualified.** A flightcrew member 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 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 flight simulation training devices (FSTD) or training equipment.
- **6.12** Specific Flight Characteristics. A 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 Skydance Blackhawk Operations UH-60A type rating designation is S-70.

NOTE: This aircraft is Day/Night Visual Flight Rules (VFR) only. Type rating practical test conducted in Skydance Blackhawk Operations UH-60A aircraft must have a "VFR Only Limitation" placed on the airman's certificate.

- **7.2** Common Type Ratings. In accordance with the provisions of FAA Order 8900.1 and AC 120-53 (current edition), the S-70 and the S-70M are separate type ratings that have been determined to have commonality.
- **7.3 Military Equivalent Designations.** Military aircraft that qualify for the S-70 type rating designation can be found on the FAA website under "Licenses & Certificates," "Airmen Certification," "Aircraft Type Rating Designators." This webpage is kept up-to-date and can be found at: <u>https://www.faa.gov/licenses_certificates/airmen_certification/</u>.

8. RELATED AIRCRAFT

- 8.1 Related Aircraft on Same TCDS. Not applicable.
- **8.2 Related Aircraft on Different TCDS.** The Skydance Blackhawk Operations UH-60A is related to all RCAT TC holders that have UH-60A, EH-60A, HH-60L, or UH-60L listed on their TCDS and have the following "VFR Only" designed type rating of S-70 VFR Only in paragraph 7.1 of their FSBR.

NOTE: The S-70M, derived from the United States (U.S.) Army Model UH-60M, requires a separate type rating.

9. PILOT TRAINING

- **9.1** Airman Experience. There are no additional airman experience requirements for the Skydance Blackhawk Operations UH-60A other than those already specified in 14 CFR part 61.
- **9.2** Special Emphasis Areas. Special Emphasis areas are to be accomplished during initial training, differences training, and recurrent training.
 - 9.2.1 Pilots must receive special emphasis on the following areas during initial and recurrent ground training:
 - a) RCAT Airworthiness Limitations. Pilots must have a working knowledge of the Special Airworthiness Certificate and an understanding of the Restricted Category/Designation the aircraft has been certificated in. This includes:
 - The approved Special Purpose Operations listed on the Special Airworthiness Certificate, in the Certification Basis section of the Restricted Category TCDS, and in the notes listed in the Restricted Category TCDS.
 - The RCAT Aircraft requirement for a Letter of Deviation Authority (LODA) before the aircraft can be used to conduct flight training and/or testing listed in 14 CFR part 91, § 91.313(h) and the additional requirements listed in 14 CFR part 91, § 91.313 (h)(1)(i).
 - b) Performance Charts. Preflight performance planning relating to takeoff performance with all-engines-operating (AEO), one-engine-inoperative (OEI), and go-arounds from rejected landings. The Skydance H-60 Flight Training Program Syllabus (VFR Only) and H-60 Training Program (VFR Only) manual includes computing aircraft performance data using the Rotorcraft Flight Manual, Tab Data, or electronically.

NOTE: No Operational Suitability Evaluation was conducted of an electronic program. Operators wishing to use the application will need to perform a validation and request approval from their Principal Operations Inspector. In such case, pilots must still be trained to proficiency in using the Rotorcraft Flight Manual performance and weight and balance charts.

- c) Knowledge of the various engines that can be found on the UH-60A, EH-60A, HH-60L, and UH-60L along with the differences of each one and the ability to intermix them on the same aircraft.
- d) Emergency Procedure (EP) Knowledge. See paragraph 9.2.2 for additional details.
- e) Crew Resource Management (CRM). Many pilots conducting RCAT operations have been operating as a single pilot and will require two pilot CRM training to

address the two pilot requirement of the Skydance Blackhawk Operations UH-60A operations.

- 9.2.2 Pilots must receive special emphasis on, and perform the following areas during initial and recurrent flight training:
 - a) Emergency Procedure Training. The Skydance Helicopters, H-60 Flight Training Program Syllabus VFR ONLY (reviewed as Revision 4), "Respond to Emergencies" section establishes standardized procedures for conducting simulated emergency procedure training in the aircraft. These procedures must be trained and followed as they facilitate safe and effective emergency procedure training in the aircraft. Special emphasis should be placed on the training procedures for the following emergencies:
 - Single Engine Failures (OEI) at Altitude and Hover.
 - Stabilator Malfunctions.
 - Electronic Control Unit (ECU)/Digital Electronic Control (DEC)/Enhanced Digital Engine Control Unit (EDECU) Lockout.
 - Degraded Automatic Flight Control System (AFCS).
- **9.3** Specific Flight Characteristics. Maneuvers or procedures required to be checked as referenced in the Airline Transport Pilot (ATP) and Aircraft Type Rating Practical Test Standards (PTS) for Helicopter.
- 9.4 Seat-Dependent Tasks. There are no seat-dependent tasks.
- 9.5 Regulatory Training Requirements Which Are Not Applicable to the Skydance Blackhawk Operations UH-60A. None.
- **9.6 Flight Simulation Training Devices (FSTD).** There are no specific systems, procedures, or maneuvers that are unique to the Skydance Blackhawk Operations UH-60A that require a specific FSTD for training.
- **9.7 Training Equipment.** There are no specific systems or procedures that are unique to the Skydance Blackhawk Operations UH-60A that require specific training equipment.
- **9.8 Differences Training Between Related Aircraft.** Pilots must receive differences training between Skydance Blackhawk Operations UH-60A and any other UH-60A, EH-60A, HH-60L, and UH-60L that appear on any other TCDS. This includes differences training on the:
 - Engines.
 - Main Rotor Transmission.
 - Performance.
 - Normal Operating Limitations.
 - Emergency Procedures.

The level of training is specified in Appendix 3, Differences Tables.

NOTE: After Skydance Helicopters purchased the aircraft, they incorporated numerous supplemental type certificates (STC). Those STC installations have not been evaluated in this FSBR. Some of the STCs may require differences training for a pilot to successfully complete a type rating practical test.

10. PILOT CHECKING

- 10.1 Landing from a No-Flap or Nonstandard Flap Approach. Not applicable.
- **10.2** Specific Flight Characteristics. Maneuvers or procedures required to be checked, Initial & Recurrent, as referenced in the Airline Transport Pilot and Aircraft Type Rating Practical Test Standards (FAA-S-8081-20), as applicable.

The aircraft standardized procedures for conducting simulated emergency procedure training referred to in paragraph 9.2.2 also apply to Pilot Checking and must be followed.

- **10.3** Seat-Dependent Tasks. There are no seat-dependent tasks.
- 10.4 Other Checking Items. Not applicable.
- **10.5 Flight Simulation Training Devices (FSTD).** There are no specific systems, procedures, or maneuvers that are unique to the Skydance Blackhawk Operations UH-60A that require a specific FSTD for checking.
- **10.6 Equipment.** There are no specific systems or procedures that are unique to the Skydance Blackhawk Operations UH-60A that require specific equipment.
- **10.7 Differences Checking Between Related Aircraft.** Pilots must receive differences checking between Skydance Blackhawk Operations UH-60A and any other UH-60A, EH-60A, HH-60L, and UH-60L that appear on any other type certificate data sheet. This includes differences training on the:
 - Engines.
 - Main Rotor Transmissions.
 - Performance.
 - Normal Operating Limitations.
 - Emergency Procedures.

The level of checking is specified in Appendix 3, Differences Tables.

NOTE: After Skydance Helicopters purchased the aircraft, they incorporated numerous supplemental type certificates (STC). Those STC installations have not been evaluated in this FSBR. Some of the STCs may require differences training for a pilot to successfully complete a type rating practical test.

11. PILOT CURRENCY

There are no additional currency requirements for the Skydance Blackhawk Operations UH-60A other than those already specified in 14 CFR part 61.

11.1 Differences Currency Between Related Aircraft. Not applicable.

12. OPERATIONAL SUITABILITY

The Skydance Blackhawk Operations UH-60A is operationally suitable for operations under 14 CFR parts 91, 133, and 137. The FSB determined operational compliance by conducting an evaluation of aircraft serial number 79-23273 registered as N391SH, on 01/30/2024. The list of operating rules evaluated is on file at the AED, Rotorcraft Branch.

13. MISCELLANEOUS

13.1 Forward Observer Seat. The Skydance Blackhawk Operations UH-60A does not have a dedicated forward observer seat. However, the cabin can be configured with a forward-facing seat that gives an unobstructed view of the flight deck.

APPENDIX 1. DIFFERENCES LEGEND

Training Differences Legend				
Training Method	Condit			
Fyamplas	Condit			

Differences Level	Туре	Training Method Examples	Conditions
A	Self-Instruction	 Operating manual revision (handout (HO)) Flightcrew operating bulletin (HO) 	 Crew has already demonstrated understanding on base aircraft (e.g., updated version of engine). Minor or no procedural changes required. No safety impact if information is not reviewed or is forgotten (e.g., different engine vibration damping mount). Once called to attention of crew, the difference is self-evident.
В	Aided Instruction	 Audiovisual presentation (AV) Tutorial computer-based instruction (TCBI) Stand-up instruction (SU) 	 Systems are functionally similar. Crew understanding required. Issues need emphasis. Standard methods of presentation required.
C	Systems Devices	 Interactive (full-task) computer-based instruction (ICBI) Cockpit Procedures Trainers (CPT) Part task trainers (PTT) Level 4 or 5 flight training device (FTD 4-5) 	 Training can only be accomplished through systems training devices. Training objectives focus on mastering individual systems, procedures, or tasks versus highly integrated flight operations or "real-time" operations. Training devices are required to assure attainment or retention of crew skills to accomplish more complex tasks usually related to aircraft systems.
D	Maneuvers Devices	 Level 6 or 7 flight training device (FTD 6-7) Level A or B full flight simulator (FFS A-B) 	 Training can only be accomplished in flight maneuver devices in a real-time environment. Training requires mastery of interrelated skills versus individual skills. Motion, visual, control-loading, and specific environmental conditions may be required.
E	Level C/D FFS or Aircraft	 Level C or D full flight simulator (FFS C-D) Aircraft 	 Motion, visual, control-loading, audio, and specific environmental conditions are required. Significant full-task differences that require a high fidelity environment. Usually correlates with significant differences in handling qualities.

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

Checking Differences Legend

APPENDIX 2. MASTER DIFFERENCES REQUIREMENTS (MDR) TABLE

These are the minimum levels of training and checking required, derived from the highest level in the Differences Tables in Appendix 3. Differences levels are arranged as training/checking.

From Base Aircraft↓	To Related Aircraft →	<u>UH-60A</u> (with T700- GE-700 engines)	<u>EH-60A</u> (with T700- GE-700 engines)	<u>UH-60A</u> (with T700- GE-701C or 701D/CC engines)	EH-60A (with T700- GE-701C or 701D/CC engines)	<u>HH-60L</u> (with T700- GE-701C or 701D/CC engines)	<u>UH-60L</u> (with T700- GE-701C or 701D/CC engines)
Skydance Blackhawk Operations UH-60A (with T700- GE-700 engines)		Not applicable	A/A	B/B	B/B	B/B	Not evaluated
Skydance Blackhawk Operations <u>UH-60A</u> (with T700- GE-701C or 701D/CC engines)		B/B	B/B	Not applicable	A/A	B/B	Not evaluated

APPENDIX 3. DIFFERENCES TABLES

This Design Differences Table lists the minimum differences levels operators must use to conduct differences training and checking of flightcrew members.

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-700 engines) TO RELATED AIRCRAFT: EH-60A (with T700-GE- 700 engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	Air Transport Association (ATA) 20 Airframe	EH-60A minor system differences.	No	No	A	A

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-700 engines) TO RELATED AIRCRAFT: UH-60A (with T700-GE- 701C or 701D/CC engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	ATA 63 Rotor Drive	Improved Durability Gearbox (IDGB) (Transmission).	No	Yes	В	В
	ATA 71 Powerplant	General Electric T700-GE-701C.	No	Yes	В	В
	ATA 71 Powerplant	General Electric T700-GE- 701D/CC.	No	Yes	В	В

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-700 engines) TO RELATED AIRCRAFT: EH-60A (with T700-GE- 701C or 701D/CC engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	ATA 20 Airframe	EH-60A minor system differences.	No	No	А	А
	ATA 63 Rotor Drive	Improved Durability Gearbox (IDGB) (Transmission).	No	Yes	В	В
	ATA 71 Powerplant	General Electric T700-GE-701C.	No	Yes	В	В
	ATA 71 Powerplant	General Electric T700-GE- 701D/CC.	No	Yes	В	В

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-700 engines) TO RELATED AIRCRAFT: HH-60L (with T700-GE- 701C or 701D/CC engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	ATA 63 Rotor Drive	Improved Durability Gearbox (IDGB) (Transmission).	No	Yes	В	В
	ATA 71 Powerplant	General Electric T700-GE-701C.	No	Yes	В	В
	ATA 71 Powerplant	General Electric T700-GE- 701D/CC.	No	Yes	В	В

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-700 engines) TO RELATED AIRCRAFT: UH-60L (with T700-GE- 701C or 701D/CC engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	Not Evaluated.					

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-701C or 701D/CC engines) TO RELATED AIRCRAFT: UH-60A (with T700-GE- 700 engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	ATA 71 Powerplant	General Electric T700-GE-700.	No	Yes	В	В

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-701C or 701D/CC engines) TO RELATED AIRCRAFT: EH-60A (with T700-GE- 700 engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
	ATA 20 Airframe	EH-60A minor system differences.	No	No	Α	А
	ATA 71 Powerplant	General Electric T700-GE-700.	No	Yes	В	В

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-701C or 701D/CC engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
TO RELATED AIRCRAFT: EH-60A (with T700-GE- 701C or 701D/CC engines)						
	ATA 20 Airframe	EH-60A minor system differences.	No	No	А	А

Al S B C UH T700 TO Al (wir 7010	ROM BASE IRCRAFT: Skydance Blackhawk Operations H-60A (with 0-GE-701C or 701D/CC engines) RELATED IRCRAFT: HH-60L th T700-GE- C or 701D/CC engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
		ATA 63 Rotor Drive	Improved Durability Gearbox (IDGB) (Transmission).	No	Yes	В	В

FROM BASE AIRCRAFT: Skydance Blackhawk Operations UH-60A (with T700-GE-701C or 701D/CC engines)	DESIGN	REMARKS	FLT CHAR	PROC CHNG	TRAINING	CHECKING
TO RELATED AIRCRAFT: UH-60L (with T700-GE- 701C or 701D/CC engines)						
	Not Evaluated.					