

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

R00005RC  
ACE Aeronautics, LLC  
UH-60A  
Revision 2  
August 9, 2019

TYPE CERTIFICATE DATA SHEET R00005RC

This data sheet, which is a part of Type Certificate No. R00005RC prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the 14 Code of Federal Aviation Regulations (14 CFR).

TYPE CERTIFICATE (TC) HOLDER: ACE Aeronautics, LLC  
105 Buck Island Road  
Guntersville, AL 35976

MODEL NUMBER: UH-60A - Restricted Category Rotorcraft Approved October 21, 2016

ENGINES: (2) General Electric T700-GE-700 Original  
(2) General Electric T700-GE-701C Alternate  
(2) General Electric T700-GE-701D/CC Alternate

FUEL: Aviation Kerosene JP-4, JP-5, JP-8, Jet A, Jet A-1 or Jet B.

ENGINE LIMITS: (T700-GE-700)

	SHAFT HP	POWER TURBINE RPM	GAS GEN RPM	POWER TURBINE INLET (TGT)
Military Power (30 min.)	1,561	20,900	44,700	850° C
Maximum Cont. Power	1,318	20,900	44,700	775° C

ENGINE LIMITS: (T700-GE-701C)

	SHAFT HP	POWER TURBINE RPM/%	GAS GEN RPM/%	POWER TURBINE INLET (TGT)
Contingency Rated Power (CRP) (2 1/2 min. OEI)	1,940	20,900/100	44,700/102	903° C
Maximum Rating (10 Min. dual)	1,890	20,900/100	44,700/102	878° C
Intermediate Rated Power (IRP) (30 min dual)	1,800	20,900/100	44,700/102	851° C
Maximum Continuous Power (MCP)	1,662	20,900/100	44,700/102	810° C

Page No.	1	2	3	4	5	6
Rev. No.	2	2	-	-	-	-

ENGINE LIMITS: (T700-GE-701D/CC)	SHAFT HP	POWER TURBINE RPM/%	GAS GEN RPM/%	POWER TURBINE INLET (TGT)
Contingency Rated Power (CRP) (2 1/2 min. OEI)	1,940	20,900/100	44,700/102	903° C
Maximum Rating (10 Min. dual)	1,890	20,900/100	44,700/102	878° C
Intermediate Rated Power (IRP) (30 min dual)	1,800	20,900/100	44,700/102	851° C
Maximum Continuous Power (MCP)	1,662	20,900/100	44,700/102	810° C

TRANSMISSION LIMITS:  
(UH-60A)

TORQUE:  
110% Single Engine (No time limit)  
100% Dual Engine (No time limit)

## ROTOR LIMITS:

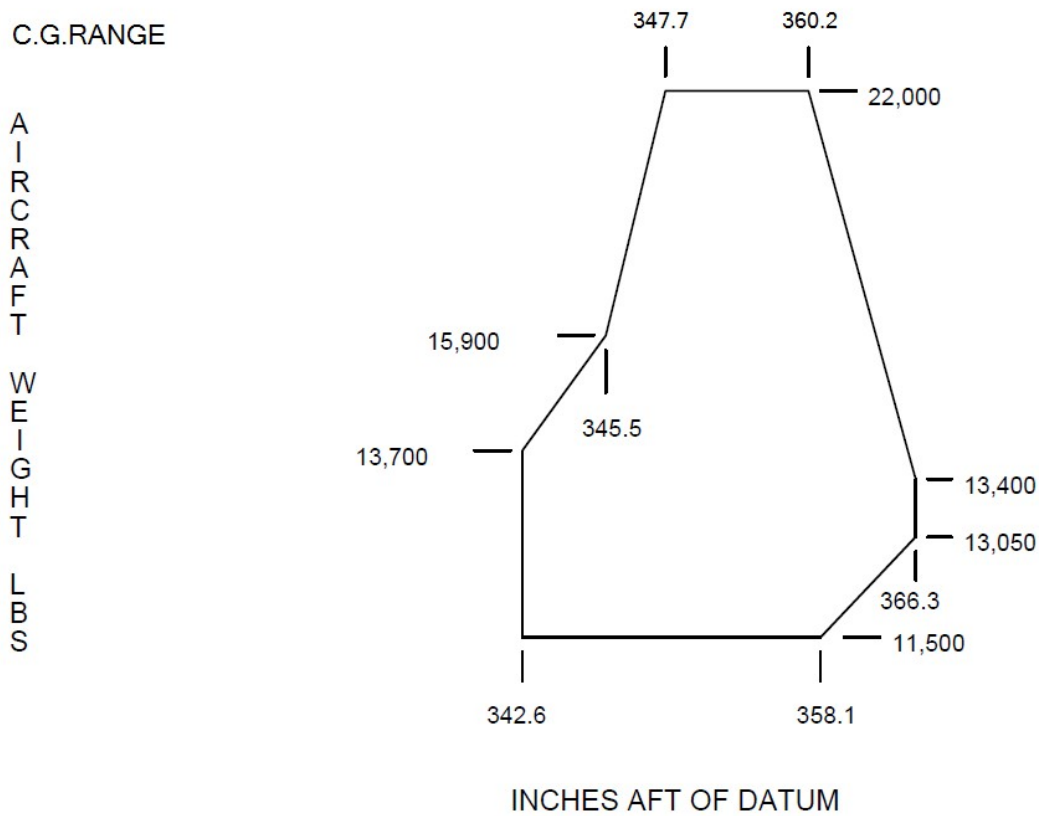
Power Off:      Max. 265 RPM    Maximum  
                         110% Max. 217 RPM  
                         Minimum    90%

Power On        Max. 258 RPM    Maximum  
                         107% Max. 232 RPM  
                         Minimum    96%

## AIRSPEED LIMITS:

V<sub>ne</sub> Power on: 193 knots IAS, (221 MPH). See document ACE-210 "Rotorcraft Flight Manual (RFM) for the UH-60A Helicopter for variation of V<sub>ne</sub> with gross weight, pressure altitude and temperature.

Refer to document no. ACE-210 "Rotorcraft Flight Manual (RFM) for the UH-60A Helicopter, Rev. IR, Dated 30 September, 2016 or later FAA approved revisions for additional limitation data.



EMPTY WEIGHT C. G. RANGE:	None		
DATUM:	341.2 inches forward of the main rotor centroid.		
LEVELING MEANS:	Plumb bob in L/H cabin door frame to leveling plate on cabin floor. Ref. Work Package 1727 contained in TM 1-1520-237-23		
MAXIMUM WEIGHT:	22,000 lbs.		
MINIMUM CREW:	2 (pilot, copilot) location at aircraft station 227.1 for both pilot and co-pilot		
NUMBER OF SEATS:	OEM established locations: 2 at Sta. 227.1; 1 at Sta. 262.0; 3 at Sta. 282.0; 3 at Sta.320.7; 4 at Sta. 339.8; 4 at Sta.387.2. Ref. note 11 for applicability		
MAX COMPARTMENT WEIGHT:	Compartment C Sta 247 to Sta 288 6460 lbs.	Compartment D Sta 288 to Sta 343 8370 lbs.	Compartment E Sta 343 to Sta 398 8370 lbs.
FUEL CAPACITY:	361.5 gallons gravity; 2 tanks (LH & RH interchangeable) STA. 420.75 359.7 gallons; 2 tanks (LH &RH interchangeable) (with fuel boost pumps installed) STA. 420.75 356.0 gallons closed circuit; 2 tanks (LH & RH interchangeable) STA. 420.75		
OIL CAPACITY:	7 quarts each engine at STA.375.0		

OTHER LIMITS: Refer to ACE-210, Rotorcraft Flight Manual (RFM) dated 30 September, 2016 or later FAA approved revision for additional limitations

SERIAL NO. APPROVED: U.S. military surplus UH-60A Blackhawk helicopter as identified in ACE Aeronautics, LLC Serial Number Approved Report Number ACE-204, Rev. IR dated March 31, 2016, or later FAA approved revision.

CERTIFICATION BASIS: 14 CFR Part 21 § 21.25(a)(2) effective February 1, 1965, including Amendments 21-1 through 21-42 for the special purposes listed in FAR 21.25 (b)(1)(2)(7).  
§ 21.25(b) (1) Agriculture Operations  
§ 21.25(b) (2) Forest & Wildlife Conservation  
§ 21.25(b) (7) External Loads

This aircraft approved for Day or Night VFR operations only. Flight into known icing conditions is prohibited.

Note: In accordance with §36.1(a) (4), compliance with the noise requirements was not shown. Therefore, aircraft certificated under this type certificate are only eligible for agricultural operations per §137.3 including aerial dispensing of liquids and forest conservation material excepted by §36.1(a) (4) and or external loads as defined §133.1(b).

Any alteration to the aircraft for Special Purposes not identified above require further FAA approval and in addition, may require noise and/or flight testing.

General Note: Any subsequent modifications to the helicopters type certified under this Type Certificate are to have the certification basis for that modification established under 14 CFR part 21 § 21.101. Non-significant modifications shall have a certification basis of 14 CFR § 29 dated February q, 1965, including amendment 29-20, effective September 11, 1980.

DATE OF APPLICATION: February 12, 2016

PRODUCTION BASIS: None. No helicopters may be produced under this approval. No helicopter serial number may be added to this type certificate unless approved by the cognizant Aircraft Certification Office. Each helicopter must pass a conformity inspection in accordance with this TCDS, plus any additional special instructions attached to the Request for conformity, FAA 8120-10. In addition, a check by the Type Certificate holder or its agent, of the flight characteristics in accordance with applicable portions of the Maintenance Test Flight also known as Functional Check Flight List manual ACE-208, Dated May 03, 2016 or later approved revision for model UH-60A helicopters.

EQUIPMENT: The basic required equipment necessary for the particular special purpose operation must be installed for certification. In addition, the following item of equipment must be on board the helicopter and available to the flight crew. "Rotorcraft Flight Manual" no. ACE-210, Rev. IR, Dated 30 September, 2016.

NOTE 1: A current weight and balance report including a list of equipment included in the certified empty weight, and loading instructions when necessary, must be provided for each helicopter at the time of original airworthiness certification.

NOTE 2: The following placards must be prominently displayed in the cockpit in full view of the pilots:

## Placard No. 1

THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE APPROVED HELICOPTER OPERATIONS MANUAL.

## Placard No. 2

THIS ROTORCRAFT MUST BE OPERATED IN ACCORDANCE WITH THE RESTRICTED CATEGORY OPERATING LIMITATIONS OF 14 CFR PART 91.313.

## Placard No. 3

EXTERNAL LOADS OPERATIONS:  $V_{ne}$  WILL BE DETERMINED FOR EACH PROPOSED EXTERNAL LOAD APPLICATION.

NOTE 3: The helicopter(s) must be serviced, maintained, inspected, repaired and overhauled in accordance with the requirements specified in ACE Aeronautics, LLC document no. ACE-202 "Instructions for Continued Airworthiness" Rev. IR dated September 13, 2016 or later FAA accepted revision, or inspected in accordance with any other FAA accepted maintenance program. The service life limited parts overhaul and retirement intervals for these helicopters is specified in ACE Aeronautics, LLC document no. ACE-202 "Instructions for Continued Airworthiness" Rev. IR dated September 13, 2016. A FAA approved/accepted copy must accompany each helicopter on delivery.

NOTE 4: The builder's data plate required by part 45 § 45.13 must be installed in accordance with ACE Aeronautics, LLC Drawing no. 40002, Rev. - dated April 04, 2016 or later FAA approved revisions.

NOTE 5: This helicopter must be operated in accordance with the operator manual comprised of the following:

(1) ACE Aeronautics, LLC approved document no. ACE-210 "Rotorcraft Flight Manual (RFM) for the UH-60A Helicopter", Rev. IR, Dated 30 September, 2016 or later FAA approved revisions.

NOTE 6: Prior to obtaining an original Airworthiness Certificate:

- A. Each helicopter must pass a conformity inspection in accordance with ACE Aeronautics, LLC document no. ACE-201 "Engineering Configuration" Rev. IR dated April 25, 2016 or later FAA approved revision. The Engineering Configuration Report identifies the U.S. Army airframe changes, and special purpose modifications accomplished on that particular helicopter.
- B. Each helicopter must pass an inspection for any possible hidden damage and the military records reviewed for acceptability of any repairs or alterations.
- C. The maintenance, overhaul, and modification records of each helicopter must be reviewed for military changes that may affect the airworthiness of the helicopter. Modifications and changes of equipment that affect the safety or performance of the helicopter must be approved by the Federal Aviation administration.
- D. After the required inspections, the aircraft must be found to be in a good state of preservation, repair, and in a condition for safe operation.

- NOTE 7: A restricted category helicopter may not be operated in a foreign country without the express written approval of that country.
- NOTE 8: This helicopter has not been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation.
- NOTE 9: Military to Military engine changes are allowed provided the replacement engine is conformed to ACE Aeronautics, LLC document no. ACE-202 "Instructions for Continued Airworthiness" Rev. IR, dated September 13, 2016 or later approved FAA revision. The military or civil replacement engine must have proper military or civil records and have the applicable FAA Airworthiness Inspection accomplished and is in an airworthy condition.
- NOTE 10: The Safety of Flight Compliance Report for the helicopter contained in ACE Aeronautics, LLC, document no. ACE-205 "Airworthiness & Military Safety Messages", Rev. A, dated June 09, 2016 or later FAA Approved revision, must be complied with prior to original airworthiness certification.
- NOTE 11: No person may be carried onboard this aircraft unless that person is a flight crewmember; is flight crewmember trainee, performs an essential function in connection with a special purpose operation for which the aircraft is certified; or is necessary to accomplish the work activity directly associated with that special purpose. Reference 14 CFR Part 91.313 (d)
- NOTE 12: Any alteration to the type design of this aircraft may require Instructions for Continued Airworthiness. Changes to the type design by means of a Supplemental Type Certificate requiring ICAs or changes to existing ICA, must be submitted and received by the Fort Worth Aircraft Evaluation Group (FTW-AEG). Type design changes by means of a FAA field approval that requires ICAs must have those ICAs reviewed by the Flight Standards District Office managing the field approval or the FTW-AEG.
- NOTE 13: Any alteration to the type design of this aircraft may require Instructions for Continued Airworthiness. These instructions must be submitted and accepted by the Administrator, prior to approval for return to service.
- NOTE 14: The certification life limits for the helicopter, its engine and appliances were based on satisfactory service history as designed and operated by the military. Therefore, to operate and maintain the aircraft to the original acceptance criteria, and maintain it's safe for intended use requirement, cycle counting and operational time tracking is required on certain critical components. Ref. ACE Aeronautics, LLC document no. ACE-202, "Instructions for Continued Airworthiness" Rev. IR, dated September 13, 2016, or later FAA approved revisions.

END