

Utilization of Unmanned Aircraft Systems (UAS/Drones) at Lincoln University

**Applicant's Name**

Tedra Booker

**Applicant's Rank**

Assistant Professor

**Applicant's Department**

Chemistry and Physics

**Date of Submission**

March 28, 2022

**Amount of Funding Requested**

\$7000.00

**Final Report Date**

January 31, 2023

On September 3, 2021 Executive Order Executive Order 14041, White House Initiative on advancing Educational Equity, Excellence and Economic Opportunity through Historically Black Colleges and Universities (HBCUs) was signed. As a result the Federal Aviation Administration (FAA) developed the Historically Black Colleges and Universities (HBCUs) Initiative Program. A working committee was established to work with HBCUs especially those with aviation and aerospace programs. Lincoln University currently does not have such a program but we can be uniquely positioned to take advantage of these opportunities through the expansion our Unoccupied (Unmanned, Unpersonned) Aircraft Systems (UAS) or commonly known as drones that are currently available on campus.

With the rapid growth of Unmanned Aircraft System (UAS) or more commonly known as drones, industry, training the next generation of diverse qualified professionals is incumbent upon researchers and educators. Lincoln University has acquired three professional drones through a grant from the NASA Pennsylvania Space Grant Consortium. As a result of the grant there are 11 students, as well as myself, are FAA certified recreational UAS pilots. In order to best utilize these professional drones, further education was needed. Clemson University offered an instructor led comprehensive applied drone technology online course. This course was a five week program that included preparation for the Part 107 remote pilot certification required by the FAA for all commercial drone operations and compliance tools. It also included learning to fly with a simulator, creating 3D models, maps and photogrammetry. The course was being paid for through a NASA Pennsylvania Space Grant Consortium. The Faculty Development Grant Funds were requested to pay the fees associated with

registration of the drones and the examination fee to take the Part 107 FAA commercial drone pilot exam.

The course was successfully completed and the subsequent Part 107 FAA commercial drone pilot exam was passed with a 92%. Before one can register for the Part 107 exam one has to pass the FAA Safety Team Aviation Learning Center Online Course (Course Number ALC-677) which was passed with a grade of 100%. The results of the exam and the certificate are included in the appendix.

Currently, Lincoln University has the following UAS technology available:

<b>Model</b>	<b>Amount on Hand</b>
Anafi Extended Parrot	2
Mavic 2 Pro with Smart Controller	1
Eachine E520S Foldable Drone	3
Launch Pads/accessories	
FS-i16S Digital Proportional Radio Control System	1

This technology can be utilized in several departments on campus such as: chemistry, biology, physics, anthropology, and mass communications. The development or expansion of this accessible technology can further prepare our students for a more productive future.

# Appendix



Cut out the small certificate above and keep with your airman certificate. You should keep the remainder of this sheet in a safe place in case you lose your certificate above.

Your Name	Tedra Booker
Your faasafety.gov Registered Username	tbooker@lincoln.edu
Course Completed	Part 107 Small Uas Recurrent
Course Completion Date	May 20, 2022
Course Completion Certificate Number	1314550-20220520-00677

**U.S. DEPARTMENT OF TRANSPORTATION  
Federal Aviation Administration  
Airman Knowledge Test Report**

**NAME:** TEDRA EDANA CICELY BOOKER  
**FAA TRACKING NUMBER (FTN):** C1663704  
**EXAM ID:** 90060720225894727  
**EXAM:** Unmanned Aircraft General - Small (UAG)  
**EXAM DATE:** 06/07/2022  
**EXAM SITE:** ABS21901  
**SCORE:** 92%  
**GRADE:** Pass  
**TAKE:** 1

The Airman Certification Standards (ACS) codes listed below represent incorrectly answered questions. These ACS codes and their associated Areas of Operation/Tasks/Elements may be found in the appropriate ACS document at: [http://www.faa.gov/training\\_testing/testing/acs](http://www.faa.gov/training_testing/testing/acs).

A single code may represent more than one incorrect response.  
UA.I.A.K1 UA.I.B.K1 UA.I.F.K6 UA.I.A.K1a UA.I.V.A.K1b

EXPIRATION DATE: 06/30/2024

**DO NOT LOSE THIS REPORT**

AUTHORIZED INSTRUCTOR'S STATEMENT: (if applicable)  
Or \_\_\_\_\_ (date) I gave the above named applicant \_\_\_\_\_ hours of additional instruction, covering each subject area shown to be deficient, and consider the applicant competent to pass the knowledge test.

Name \_\_\_\_\_ (print clearly)

Cert. No. \_\_\_\_\_ (print clearly)

Type of instructor certificate \_\_\_\_\_

Signature \_\_\_\_\_

**FRAUDULENT ALTERATION OF THIS FORM BY ANY PERSON IS A BASIS FOR SUSPENSION OR REVOCATION OF ANY CERTIFICATES OR RATINGS HELD BY THAT PERSON.**  
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