REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

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1. REPORT DATE *(DD-MM-YYYY)* 04-10-2021	**2. REPORT TYPE** Technical Paper	**3. DATES COVERED** *(From - To)* Aug 2015 – Sep 2021
4. TITLE AND SUBTITLE Idle-Thrust versus Zero-thrust Stalls in the C-12C		**5a. CONTRACT NUMBER** **5b. GRANT NUMBER** **5c. PROGRAM ELEMENT NUMBER**
6. AUTHOR(S) Karl B. Major		**5d. PROJECT NUMBER** **5e. TASK NUMBER** **5f. WORK UNIT NUMBER**
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AND ADDRESS(ES) USAF Test Pilot School 220 South Wolfe Ave Edwards AFB, CA 93524		**8. PERFORMING ORGANIZATION REPORT NUMBER** 412TW-PA-21450
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) 412th Test Wing 195 E Popson Ave Edwards AFB CA 93524		**10. SPONSOR/MONITOR'S ACRONYM(S)** N/A **11. SPONSOR/MONITOR'S REPORT NUMBER(S)**

12. DISTRIBUTION / AVAILABILITY STATEMENT
Approved for public release Distribution Statement A: distribution is unlimited.

13. SUPPLEMENTARY NOTES
Source Code 012100 (This number comes from STINFO via EAFB Technical Library)
CA: 412th Test Wing, Edwards AFB, CA

14. ABSTRACT
The C-12C was modified with a new 4-bladed swept propeller and a redesigned inboard leading edge. The end result was lower stall speeds and better takeoff and landing performance. Reports of a stall speed discrepancy began shortly after the Air Force received their first modified aircraft. The magnitude of the issue didn't sink in until a functional check flight at Edwards AFB showed that the zero-flap, idle-thrust stall speed was essentially the same as the charted V_1 speed. A 4-year investigation ensued that included a historical investigation, a limited stall test and a student Test Management Project where zero-thrust and idle thrust stall speeds were investigated. The investigation settled the perceived stall speed discrepancy, identified an apparent misinterpretation of FAA part 23 stall paragraphs, and looked into the history of FAA part 23 definitions for various takeoff speeds.

15. SUBJECT TERMS
USAF TPS, C-12, Idle-thrust, Zero-thrust, Stalls, Takeoff Speeds, Landing Speeds, Flight Test

16. SECURITY CLASSIFICATION OF:			**17. LIMITATION OF ABSTRACT**	**18. NUMBER OF PAGES**	**19a. NAME OF RESPONSIBLE PERSON**
		Unclassified			412 TENG/EN (Tech Pubs)
a. REPORT	**b. ABSTRACT**	**c. THIS PAGE**	None	11	**19b. TELEPHONE NUMBER** *(include area code)*
Unclassified	Unclassified	Unclassified			661-277-8615

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std. Z39.18