

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR24FA285

GEAR ADVISORY UNIT EXAM NOTES

December 20, 2024

TABLE OF CONTENTS

A. ACCIDENT.....	3
B. GEAR ADVISORY UNIT EXAM NOTES	3
C. SUMMARY	3
D. DETAILS OF THE INVESTIGATION	3
1.0 UNIT TESTING	3
2.0 TEST RESULTS	5

A. ACCIDENT

Location: Kent, Washington
Date: August 24, 2024
Time: 1010 PDT
<Enter HHMM coordinated universal time (UTC)>
Airplane: Cessna A185F, N61323

B. GEAR ADVISORY UNIT EXAM NOTES

NTSB Zane Brown
National Transportation Safety Board
Coeur d'Alene, Idaho

Party Coordinator Caleb Troumbley
Aerocet Inc.
Priest River, Idaho

C. SUMMARY

On August 24, 2024, at about 1010 Pacific daylight time, a Cessna A185F, N61323, was substantially damaged when it was involved in an accident near Kent, Washington. The pilot was fatally injured. The flight was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

D. DETAILS OF THE INVESTIGATION

The following device was bench tested at Aerocet's production facility in Priest River, Idaho:

Device Manufacturer/Model: Aerocet Inc. GC600 Gear Advisory Unit
Serial Number: 1185

1.0 UNIT TESTING

The device was undamaged but displayed corrosion to the electrical connectors. Figures 1 and 2 show the front and back of the device. The unit was powered using a 24 volt external power supply, and functions were tested using air pressure and electrical switches.



Figure 1. View of front of Gear Advisory Unit.



Figure 2. View of back of Gear Advisory Unit.

2.0 TEST RESULTS

The Gear Advisory Unit passed all functionality tests per Aerocet Inc. reference specification A-31013. During the bench test, all display indicator lights illuminated correctly when the "TEST" button was pressed, and the "HYD PMP" light functioned as expected upon toggling the bench pump switch. Advisory announcements for both "water landing" and "runway landing" were triggered and canceled appropriately, with both "Cancel" buttons performing as required. The aural advisory arming airspeed was found to be set at 95 MPH (miles per hour) and triggered at 77 MPH. The "TEST" button accurately confirmed gear position, and audio announcements met acceptable standards for volume and clarity. The unit also passed lighting and sensor checks, with the main switch activating green test stand lights and the photo sensor dimming and brightening the display correctly. During the test, the right nose gear down indication light was slow to illuminate about three-quarters of a second after the circuit was closed. A physical inspection verified proper assembly, intact fasteners, aligned components, correct labeling, and a clean, defect-free appearance aside from the visible corrosion of the electrical connectors. After testing, the unit was removed from the test stand and returned to its packaging.

Submitted by:

Zane Brown
Aviation Accident Investigator

APPENDIX 1 - WPR24FA285 AEROCET GC600 CONFORMITY CHECKLIST