

NATIONAL TRANSPORTATION SAFETY BOARD PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

This form to be used for reporting civil and public aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location

Nearest City/Place: Wichita State: Kansas

ZIP: 67226 Country: USA

Latitude: 37.8195 Longitude: -97.2261

(Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: 07/01/2021 Local Time: 7:08 PM
mm/dd/yyyy

Time Zone: CDT

Collision with Other Aircraft: ☐ Midair ☐ On-ground ☒ None

AIRCRAFT INFORMATION

Registration Number: N10HK

Manufacturer: PIPER

Model: AEROSTAR 600A

Serial Number: _____

Year of Manufacture: 1980

Amateur-Built: ☐ Yes ☒ No If Yes: ☐ Kit/Plans ☐ Original Design Make: _____

☒ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 5500 lbs

Weight at Time of Accident/Incident: ~4600 lbs

Number of Seats: 4 Flight Crew Seats: 2

Cabin Crew Seats: _____ Passenger Seats: 2

Number of Engines: 2

Category of Aircraft

- ☒ Airplane
☐ Balloon
☐ Blimp/Dirigible
☐ Glider
☐ Gyroplane
☐ Helicopter
☐ Powered Lift
☐ Rocket
☐ Ultralight
☐ Unknown

Type of Airworthiness Certificate

(Check all that apply)

Standard

- ☒ Normal
☐ Aerobatic
☐ Balloon
☐ Commuter
☐ Transport
☐ Utility

Special

- ☐ Restricted
☐ Limited
☐ Provisional
☐ Special Flight
☐ Experimental
☐ Special Light-Sport
☐ Experimental Light-Sport

☐ Certificate of Authorization or Waiver (COA)
☐ None ☒ Unknown

Landing Gear

(Check all that apply)

☒ Retractable

- ☒ Tricycle ☐ Tailwheel
☐ Amphibian ☐ High Skid
☐ Emergency Float ☐ Skid
☐ Float ☐ Ski
☐ Hull ☐ Ski/Wheel
☐ Other Launch/Recovery System
☐ None ☐ Unknown

Engine Type (Select one)

- ☒ Reciprocating ☐ Liquid Rocket
☐ Turbo Shaft ☐ Solid Rocket
☐ Turbo Prop ☐ Hybrid Rocket
☐ Turbo Jet ☐ None
☐ Turbo Fan ☐ Unknown
☐ Electric

Fuel System Type (Reciprocating)

☐ Carburetor ☒ Fuel-Injected

Engine	Engine Manufacturer	Engine Model/Serial	Manufacturer's Serial Number	Date of Mfg. mm/dd/yyyy	Rated Power ☒ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	<u>Lycoming</u>	<u>IO540 K1J5</u>	<u>L-19713-48A</u>	<u>03/14/1980</u>	<u>290</u>	<u>2812</u>	<u>68</u>	<u>1279</u>
Eng. 2	<u>Lycoming</u>	<u>IO540 K1J5</u>	<u>L-19621-48A</u>	<u>03/14/1980</u>	<u>290</u>	<u>2812</u>	<u>68</u>	<u>291</u>
Eng. 3								
Eng. 4								

Last Inspection Type

- ☐ 100-Hour ☐ Continuous Airworthiness
☐ AAIP ☐ Conditional Inspection
☒ Annual ☐ Unknown

Date Last Inspection: 05/06/2021
mm/dd/yyyy

Airframe Total Time: 2744.9 hrs

hours measured at (Select one)

☒ Last Inspection ☐ Time of Accident/Incident

Type of Maintenance Program (Select one)

- ☒ Annual
☐ Conditional (Amateur-built only)
☐ Manufacturer's Inspection Program
☐ Other Approved Inspection Program (AAIP)
☐ Continuous Airworthiness
☐ Other, specify: _____

Description of Fire Extinguishing System

- ☐ None
☒ Specify: HANDHELD FIRE
EXTINGUISHER IN CABIN

Propeller 1

- ☐ Fixed Pitch
☒ Controllable Pitch
☐ Ground Adjustable

Manufacturer: HARTZELL

Model: HC-C3YR-2UF

Propeller 2

- ☐ Fixed Pitch
☒ Controllable Pitch
☐ Ground Adjustable

Manufacturer: HARTZELL

Model: HC-C3YR-2UF

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: Narco

Model or Part No.: ELT 10

TSO No.: ☒ C91 (121.5 MHz) ☐ C91a (121.5 MHz)
☐ C126 (406 MHz)

Was ELT still mounted in aircraft? ☒ Yes ☐ No

Was ELT still connected to antenna? ☒ Yes ☐ No

Did ELT Activate? ☒ Yes ☐ No

If activated:

Did ELT Aid in Locating Aircraft? ☐ Yes ☒ No

If not activated:

- Indicate Reason: ☐ Impact Damage
☐ Fire Damage
☐ Battery Expired/Damaged
☐ Unknown

Additional Equipment (Check all that apply)

- ☒ ADS-B
☐ Airframe Parachute
☐ Angle of Attack Indicator
☒ Autopilot
☐ Data Recorder
☒ Electronic Flight Bag or Handheld Device
☒ Electronic Multifunction Display
☐ Electronic Primary Flight Display
☐ Handheld GPS
☐ Heads Up Display
☒ Onboard Weather
☐ Satellite Tracking Device
☐ Stall Warning System
☐ Video Recording Device
☐ Other, Specify: _____

OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: JA MACH 3 LLCCity: SCOTTSDALEState: ARIZONAZIP: 85255Fractional Ownership Aircraft: ☐ Yes ☐ NoCountry: USA**Operator of Aircraft**☐ Same As Registered Owner☐ Same Address as Registered Owner

Name: _____

City: _____

Doing Business As: _____

State: _____

ZIP: _____

Air Carrier/Operator Designator (4 Character Code): _____

Country: _____

Operating Certificates Held

(Check all that apply)

- ☒ None
☐ Flag Carrier Operating Certificate (FAR 121)
☐ Supplemental
☐ Air Cargo
☐ Foreign Air Carriers (FAR 129)
☐ Rotorcraft External Load (FAR 133)
☐ Commuter Air Carrier (FAR 135)
☐ On-Demand Air Taxi (FAR 135)
☐ Commercial Air Tour (FAR 136)
☐ Agricultural Aircraft (FAR 137)
☐ Pilot School (FAR 141)
☐ Certificate of Authorization or Waiver (COA)
☐ Commercial Space Transportation
Experimental Permit
☐ Commercial Space Transportation License
☐ Other Operator of Large Aircraft

Regulation Flight Conducted Under

- ☒ FAR 91 ☐ FAR 129 ☐ FAR 415
☐ FAR 103 ☐ FAR 133 ☐ FAR 431
☐ FAR 121 ☐ FAR 135 ☐ FAR 435
☐ FAR 125 ☐ FAR 137 ☐ FAR 437

☐ FAR 91 Special Flight
☐ Non-US, Commercial
☐ Non-US, Non-commercial

☐ Public Aircraft (Select one)
☐ Armed Forces
☐ Federal
☐ State
☐ Local

☐ Unknown

Revenue Operation for FAR 121, 125, 129, 135

(Select one for each group)

- ☐ Scheduled or Commuter ☐ Domestic
☐ Non-Scheduled or Air Taxi ☐ International

☐ Passenger
☐ Cargo
☐ Mail Contract Only

Purpose of Flight for FAR 91, 103, 133, 137

(Select one)

- ☐ Aerial Application ☐ Firefighting ☐ Unknown
☐ Aerial Observation ☐ Flight Test
☐ Air Drop ☐ Glider Tow
☐ Air Race/Show ☐ Instructional
☐ Banner Tow ☐ Other Work Use
☐ Business ☒ Personal
☐ Executive/Corporate ☐ Positioning
☐ External Load ☐ Skydiving
☐ Ferry

Revenue Sightseeing Flight☐ Yes ☒ No**Air Medical Flight**☐ Yes ☒ No**AIRPORT INFORMATION** (Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)Airport Name: COLONEL JAMES JABARADistance From Airport Center: 3.1 smAirport Identifier: KAABDirection From Airport: 6 degrees trueProximity to Airport: ☒ Off Airport/Airstrip ☐ On Airport/Airstrip ☐ N/AAirport Elevation: 1421 ft. msl**Runway Information**Runway ID: 18-36 (L/R/C) Length: 6101 ft Width: 100 ft**Runway/Landing Surface** (Check all that apply)

- ☐ Asphalt ☐ Grass/Turf ☐ Macadam ☐ Water
☒ Concrete ☐ Gravel ☐ Metal/Wood
☐ Dirt ☐ Ice ☐ Snow ☐ Unknown

Condition of Runway/Landing Surface (Check all that apply)

- ☒ Dry ☐ Snow-Compacted ☐ Water-Calm
☐ Holes ☐ Snow-Crusted ☐ Water-Choppy
☐ Ice Covered ☐ Snow-Dry ☐ Water-Glassy
☐ Rough ☐ Snow-Wet ☐ Wet
☐ Rubber Deposits ☐ Soft
☐ Slush-Covered ☐ Vegetation ☐ Unknown

Approach/Departure Segment (Select one)

- ☐ Taxi ☐ VFR Departure ☐ On Instrument Approach ☒ Downwind ☐ Low Approach
☐ Takeoff ☐ IFR Departure Procedure/Clearance ☐ Landing ☐ Base ☐ Go Around
☐ Initial Climb ☐ Aborted Landing (after touchdown)
☐ Crosswind ☐ Unknown

IFR Approach (Check all that apply)

- ☒ None
☐ ADF/NDB ☐ PAR ☐ MLS ☐ Practice
☐ SDF ☐ Sidestep ☐ LDA ☐ GPS
☐ VOR/TVOR ☐ ILS ☐ ASR
☐ VOR/DME ☐ Localizer Only ☐ Visual
☐ TACAN ☐ LOC-back course ☐ Contact
☐ RNAV ☐ Circling

☐ Unknown

VFR Approach (Check all that apply)

- ☐ None
☒ Traffic Pattern ☐ Stop and Go
☐ Straight-In ☐ Touch and Go
☐ Valley/Terrain Following ☐ Simulated Forced Landing
☐ Go Around ☒ Forced Landing
☒ Full Stop ☐ Precautionary Landing

☐ Unknown

"FLIGHT CREWMEMBER 1" INFORMATION

"Flight Crewmember 1" Responsibilities at the Time of Accident/Incident

☒ Pilot
 ☐ Co-Pilot
 ☐ Student Pilot
 ☐ Flight Instructor
 ☐ Check Pilot
 ☐ Flight Engineer
 ☐ Other Flight Crew

"Flight Crewmember 1" was pilot flying ☒ Yes ☐ No

"Flight Crewmember 1" Identification

First Name: JACOB

City of Residence: PHOENIX

Middle Initial: F

State: ARIZONA ZIP: 85014

Last Name: ALEFS

Country: USA

Age at time of Accident/Incident: 30 Date of Birth: mm/dd/yyyy

Certificate Number:

Degree of Injury ☐ None ☐ Fatal ☒ Minor ☐ Unknown ☐ Serious	Seat Occupied ☒ Left ☐ Front ☐ Unknown ☐ Right ☐ Rear ☐ Center ☐ Single	Restraint Type <table style="width: 100%;"> <tr> <th style="text-align: left;">Available</th> <th style="text-align: left;">Used</th> </tr> <tr> <td>☐ None</td> <td>☐ None</td> </tr> <tr> <td>☐ Lap only</td> <td>☐ Lap only</td> </tr> <tr> <td>☒ 3-point</td> <td>☒ 3-point</td> </tr> <tr> <td>☐ 4-point</td> <td>☐ 4-point</td> </tr> <tr> <td>☐ 5-point</td> <td>☐ 5-point</td> </tr> <tr> <td>☐ Unknown</td> <td>☐ Unknown</td> </tr> </table>	Available	Used	☐ None	☐ None	☐ Lap only	☐ Lap only	☒ 3-point	☒ 3-point	☐ 4-point	☐ 4-point	☐ 5-point	☐ 5-point	☐ Unknown	☐ Unknown	Inflatable Restraints ☒ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown
Available	Used																
☐ None	☐ None																
☐ Lap only	☐ Lap only																
☒ 3-point	☒ 3-point																
☐ 4-point	☐ 4-point																
☐ 5-point	☐ 5-point																
☐ Unknown	☐ Unknown																
Pilot Certificate(s) (Check all that apply) ☐ None ☒ Flight Instructor ☒ Commercial ☐ US Military ☒ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer																	

Principal Occupation ☒ Pilot ☐ Other ☐ Unknown	Medical Certificate ☐ None ☐ Class 3 ☒ Class 1 ☐ Driver's License (Sport Pilot only) ☐ Class 2 ☐ Unknown	Medical Certificate Validity ☒ Without limitations/waivers ☐ Unknown ☐ With limitations/waivers ☐ N/A ☐ Special Issuance	Date of Last Medical <u>07/11/2019</u> mm/dd/yyyy
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Medical Certificate Limitations

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: <u>05/28/2020</u> mm/dd/yyyy	Flight Review Aircraft Make: <u>CESSNA</u> Model: <u>172</u>
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Airplane Rating(s) (Check all that apply) ☐ None ☒ Single-Engine Land ☐ Single-Engine Sea ☒ Multiengine Land ☐ Multiengine Sea	Other Aircraft Rating(s) (Check all that apply) ☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☐ Helicopter ☐ Powered Lift	Instrument Rating(s) (Check all that apply) ☐ None ☒ Airplane ☐ Helicopter ☐ Powered Lift	Instructor Rating(s) (Check all that apply) ☐ None ☒ Instrument Airplane ☒ Airplane Single-Engine ☐ Instrument Helicopter ☒ Airplane Multi-Engine ☐ Helicopter ☐ Gyroplane ☐ Glider ☐ Powered Lift ☐ Sport
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Type Ratings	Student Endorsements (Include dates)
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Flight Time (Enter appropriate number of hours in each box)	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	420	95	299	121	33	5	63			
Pilot in Command (PIC)	340	86	273	112	28	5	63			
Time as Instructor	0	0	0	0	0	0	0			
This Make/Model					4	2	0			
Last 90 Days	80	80	0	80	4	2	0			
Last 30 Days	47	47	0	47	4	0	0			
Last 24 Hours	8	8	0	8	0	0	0			

"FLIGHT CREWMEMBER 2" INFORMATION

"Flight Crewmember 2" Responsibilities at the Time of Accident/Incident

☐ Pilot
 ☐ Co-Pilot
 ☐ Student Pilot
 ☐ Flight Instructor
 ☐ Check Pilot
 ☐ Flight Engineer
 ☐ Other Flight Crew

"Flight Crewmember 2" was pilot flying ☐ Yes ☐ No

"Flight Crewmember 2" Identification

First Name: _____ City of Residence: _____
 Middle Initial: _____ State: _____ ZIP: _____
 Last Name: _____ Country: _____
 Age at time of Accident/Incident: _____ Date of Birth: _____ mm/dd/yyyy
 Certificate Number: _____

Degree of Injury ☐ None ☐ Fatal ☐ Minor ☐ Unknown ☐ Serious	Seat Occupied ☐ Left ☐ Front ☐ Unknown ☐ Right ☐ Rear ☐ Center ☐ Single	Restraint Type <table style="width: 100%;"> <tr> <th style="text-align: left;">Available</th> <th style="text-align: left;">Used</th> </tr> <tr> <td>☐ None</td> <td>☐ None</td> </tr> <tr> <td>☐ Lap only</td> <td>☐ Lap only</td> </tr> <tr> <td>☐ 3-point</td> <td>☐ 3-point</td> </tr> <tr> <td>☐ 4-point</td> <td>☐ 4-point</td> </tr> <tr> <td>☐ 5-point</td> <td>☐ 5-point</td> </tr> <tr> <td>☐ Unknown</td> <td>☐ Unknown</td> </tr> </table>	Available	Used	☐ None	☐ None	☐ Lap only	☐ Lap only	☐ 3-point	☐ 3-point	☐ 4-point	☐ 4-point	☐ 5-point	☐ 5-point	☐ Unknown	☐ Unknown	Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown				
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Pilot Certificate(s) <i>(Check all that apply)</i> <table style="width: 100%;"> <tr> <td>☐ None</td> <td>☐ Flight Instructor</td> <td>☐ Commercial</td> <td>☐ US Military</td> </tr> <tr> <td>☐ Private</td> <td>☐ Recreational</td> <td>☐ Airline Transport</td> <td>☐ Foreign</td> </tr> <tr> <td>☐ Student</td> <td>☐ Sport</td> <td>☐ Flight Engineer</td> <td></td> </tr> </table>		☐ None	☐ Flight Instructor	☐ Commercial	☐ US Military	☐ Private	☐ Recreational	☐ Airline Transport	☐ Foreign	☐ Student	☐ Sport	☐ Flight Engineer		Medical Certificate Validity <table style="width: 100%;"> <tr> <td>☐ Without limitations/waivers</td> <td>☐ Unknown</td> </tr> <tr> <td>☐ With limitations/waivers</td> <td>☐ N/A</td> </tr> <tr> <td>☐ Special Issuance</td> <td></td> </tr> </table>		☐ Without limitations/waivers	☐ Unknown	☐ With limitations/waivers	☐ N/A	☐ Special Issuance	
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☐ Class 1	☐ Driver's License (Sport Pilot only)																				
☐ Class 2	☐ Unknown																				

Medical Certificate Limitations

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: _____ mm/dd/yyyy

Flight Review Aircraft

Make: _____
Model: _____

Airplane Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Single-Engine Land ☐ Single-Engine Sea ☐ Multiengine Land ☐ Multiengine Sea	Other Aircraft Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☐ Helicopter ☐ Powered Lift	Instrument Rating(s) <i>(Check all that apply)</i> ☐ None ☐ Airplane ☐ Helicopter ☐ Powered Lift	Instructor Rating(s) <i>(Check all that apply)</i> <table style="width: 100%;"> <tr> <td> ☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift </td> <td> ☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport </td> </tr> </table>	☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift	☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport
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Type Ratings

Student Endorsements *(Include dates)*

Flight Time <i>(Enter appropriate number of hours in each box)</i>	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time										
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)									
Crew Name and Address					Seat Occupied		Injury		
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____					☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown		
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Private ☐ Student ☐ Flight Instructor ☐ Recreational ☐ Sport ☐ Commercial ☐ Airline Transport ☐ Flight Engineer ☐ US Military ☐ Foreign					Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown		
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No			Total Flight Time at the Time of this Accident/Incident: _____ hrs						
Crew Name and Address					Seat Occupied		Injury		
First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____					☐ Left ☐ Front ☐ Center ☐ Rear ☐ Right ☐ Single ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown		
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Private ☐ Student ☐ Flight Instructor ☐ Recreational ☐ Sport ☐ Commercial ☐ Airline Transport ☐ Flight Engineer ☐ US Military ☐ Foreign					Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown		
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No			Total Flight Time at the Time of this Accident/Incident: _____ hrs						
PASSENGER(S) / OTHER PERSONNEL (Include cabin crew; continue on separate sheet if necessary)									
Name and Address				Seat	Injury	Restraint Type		Inflatable Restraints	Age
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other				☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other				☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other				☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other				☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KFSD</u> City: <u>SIoux FALLS</u> State: <u>SOUTH DAKOTA</u> Country: <u>USA</u>	Time of Departure Time: <u>5:23</u> Time Zone: <u>CDT</u>	Destination Airport ID: <u>KAAO</u> City: <u>WICHITA</u> State: <u>KANSAS</u> Country: <u>USA</u>	Type Flight Plan Filed ☒ None ☐ VFR/IFR ☐ Company VFR ☐ IFR ☐ Military VFR ☐ Unknown ☐ VFR Activated? ☐ Yes ☒ No ☐ Unknown
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Type of ATC Clearance/Service (Check all that apply)

☐ None	☐ Special VFR	☐ Special IFR	☒ VFR Flight Following	☐ Cruise
☐ VFR	☐ IFR	☐ VFR On Top	☐ Traffic Advisory	☐ Unknown / NA

Airspace where the accident/incident occurred (Check all that apply)

☐ Class A ☐ Class B ☐ Class C ☐ Class D ☒ Class E	☐ Class G ☐ Demo Area ☐ Warning Area ☐ Prohibited Area ☐ Restricted Area	☐ Military Operations Area (MOA) ☐ Airport Advisory Area ☐ Jet Training Area ☐ TRSA ☐ FAR 93	☐ Special ☐ Air Traffic Control Area ☐ Unknown	Altitude of In-Flight Occurrence: <u>2800</u> ft msl
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WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information

(Check all that apply)

☐ National Weather Service ☐ Flight Service Station ☐ TV/Radio ☒ Automated Report ☐ Commercial Weather Service (DUATS) ☒ On-Board Weather	☐ Company ☐ Military ☐ Internet ☐ None ☐ Unknown
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Weather Observation Facility

Facility ID: KAAO
 Observation Time: 6:54
 Time Zone: CDT
 Distance from Accident Site: 2.7 nm
 Direction from Accident Site: 6 degrees true

Basic Conditions

☒ VMC
☐ IMC
☐ Unknown

Light Condition

☒ Dawn ☐ Dusk ☐ Dark Night ☐ Unknown
☒ Day ☐ Night ☐ Bright Night

Sky/Lowest Cloud Condition

☐ Clear ☐ Thin Broken
☒ Few ☐ Thin Overcast
☐ Partial Obscuration ☐ Unknown
☐ Scattered

Lowest Cloud Condition Height

3600 ft agl

Ceiling

☒ None (Clear) ☐ Obscured
☐ Broken ☐ Indefinite
☐ Overcast ☐ Unknown

Ceiling Height

_____ ft agl

Temperature: 28 (C) or _____ (F)

Dew Point: 20 (C) or _____ (F)

Altimeter Setting: 30.00 in. Hg
or _____ MB

Wind Direction

☐ Variable

-or-
Direction: 060 degrees true

Wind Speed

☐ Calm
☐ Light and Variable

-or-
Speed: 07 kts

Wind Gusts

☒ Not Gusting

-or-
Speed: _____ kts

Visibility 10+ miles

RVR: _____ feet

RVV: _____ miles

Density Altitude: 3454 ft

Intensity of Precipitation

☐ Light
☐ Moderate
☐ Heavy
☒ N/A
☐ Unknown

Type of Precipitation (Check all that apply)

☒ None	☐ Drizzle	☐ Freezing Rain
☐ Rain	☐ Ice Pellets	☐ Snow Shower
☐ Snow	☐ Snow Pellets	☐ Ice Pellets Shower
☐ Hail	☐ Snow Grains	☐ Freezing Drizzle
☐ Rain Showers	☐ Ice Crystals	

Restriction to Visibility (Check all that apply)

☒ None	☐ Fog
☐ Blowing Dust	☐ Ground Fog
☐ Blowing Sand	☐ Haze
☐ Blowing Snow	☐ Ice Fog
☐ Blowing Spray	☐ Smoke
☐ Dust	☐ Unknown

Icing Forecast

Amount	Type
☒ None	☒ N/A
☐ Trace	☐ Rime
☐ Light	☐ Clear
☐ Moderate	☐ Mixed
☐ Severe	☐ Unknown
☐ Unknown	

Icing Actual

Amount	Type
☒ None	☐ N/A
☐ Trace	☐ Rime
☐ Light	☐ Clear
☐ Moderate	☐ Mixed
☐ Severe	☐ Unknown
☐ Unknown	

Turbulence

Type (Check all that apply)	Severity
☒ None	☐ Light
☐ Clear Air	☐ Moderate
☐ Terrain-Induced	☐ Severe
☐ Convective Turbulence	☐ Extreme

NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident:

None

DAMAGE TO AIRCRAFT AND OTHER PROPERTY**Aircraft Damage**

- ☐ None ☒ Substantial
☐ Minor ☐ Destroyed
 ☐ Unknown

Aircraft Fire

- ☒ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Fire at Unknown Time
☐ On-Ground ☐ Unknown

Aircraft Explosion

- ☒ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Explosion at Unknown Time
☐ On-Ground ☐ Unknown

Description of Damage to Aircraft and Other Property *(Use additional sheet if necessary)*

Empennage split at the seam at aft cabin section of fuselage, main gear penetrated wings and collapsed, both wings twisted, props bent, many panels wrinkled and dented.

Property damage was limited to the crops damaged in the field from the impact and skid to a stop.

NARRATIVE HISTORY OF FLIGHT *(Please type or print in ink)*

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State departure time and location, services obtained, and intended destination. Provide as much detail as possible.

We were within the first 100hrs and first year of ownership of N10HK, what some would consider the "shakeout" period of airplane ownership when most issues of deferred maintenance and lack of use issues from previous owners will present themselves. Attached will be the Pre Purchase inspection findings and work performed as well as work performed at annual and subsequent services and maintenance performed since Annual.

On June 19th 2021 I requested a fuel top off at Cutter aviation at KDVT with specific instructions to fill the main fuselage tank first then fill up to half an inch down on each wing. This was performed by a line worker via fuel truck while I was beginning my preflight inspection. I was there to verify that 133 gallons had been added between all three tanks and that my instructions were followed properly. The usable fuel amount is 165.5 gallons with .6" down from the filler neck on each wing. This is important to note because this was the last time the plane was filled to full useable capacity and therefore the Shadin Fuel Totalizer was able to be reset to an accurate Full amount of 165 gallons. Two more flights would take place before the next fuel stop. On the 19th after being topped off with fuel I departed towards Pueblo Colorado and was 50 miles into the flight when the right engine driven fuel pump experienced a loss of fuel pressure. I immediately returned to Deer Valley. This flight was 45 minutes from startup to shutdown and roughly 38 minutes of time in flight. The fuel pump was replaced that following week. No fuel had to be drained in order to replace the fuel pump according to the A&P mechanic.

The next flight was the morning of July 1st 2021 originally planned to be departing Deer Valley Airport (KDVT) for Pueblo Co (KPUB). However due to mountain obscuration and convective activity east of the Rockies, with some help from Flight Services, I was able to determine a better route staying west and heading north of the Rockies. The new route was to fly VFR Direct from KDVT to Cherokee VOR then turn an eastern heading to KGUR for fuel. This would avoid the high terrain and mountain obscuration as well as the convective activity. We learned KGUR was out of 100LL while listening to the ATIS and were able to confirm on the unicom freq. My alternate was to be Torrington (KTOR) however we could see both visually and on the NEXRAD via GTN750 that KTOR was directly under a T-storm cell. I determined that Chadron (KCDR) was the next best option being less than 30 minutes away and with long enough runways as well as 100LL available. At this point we were just over 3:20 minutes into flight with about 30 minutes to KCDR. We had been flying at 11500 and burning 28GPH so according to the Shadin we had roughly an hour and a half of fuel reserves when I made the decision to keep going to KCDR. This was further reinforced when I checked the fuel remaining in gallons on the Shadin once we were on the ground at Chadron and it read 24.8. I requested 100 gallons of 100LL, with the main tank filled first and wings fueled evenly with the remainder. This would yield a total of 124.8 gallons on board for an hour and a half flight to Sioux Falls KFSD. I had not yet decided whether or not I would continue to Wichita as the weather had been bad all morning but seemed to be improving. I took the extra fuel in case I decided to continue on. At engine shutdown at KFSD the Shadin showed a burn of 46 gallons over the 1.5 hour flight with 78.8 gallons remaining.

After taking a break in Sioux Falls to eat, stretch out a bit and check the weather along the route to Wichita, I was able to determine that the flight to Wichita was a go as the storm cells had moved sufficiently to the South for me to make it in to Jabara without encountering and adverse weather conditions. After checking the winds I was able to determine that flying at 7500 would yield the shortest duration of flight and least fuel burned due to favorable tailwind conditions and the ability to maintain groundspeed of 200+ kts at a reduced power setting without the need of a prolonged climb. This flight was to last 1:45 minutes according to my preflight planning. So with a conservative estimate of 5 gallons burned on taxi and run up, which was far from accurate as my taxi and run up was less than 10 minutes from startup to takeoff, this would leave me with 73.8 gallons for a 1:45 flight burning an average of 32GPH between climb cruise and descent profiles. This should have yielded 2:20 of flight time at takeoff which would leave me a 35 minute fuel reserve for a day VFR flight. Having tested the Shadin for accuracy in the past with good results, I did not feel the need to take on additional fuel. At this time it is relevant to note that the Aerostar factory fuel gauges are widely known to be inaccurate at best and placarded to only be read in level flight. However, there is a factory failsafe low fuel indicator light that illuminates as the main tank depletes to "12-16 gallons" per the POH, at which point the wing tanks are entirely depleted. Part of my preflight checks its to test the low fuel indicator light as well as all of the panel mounted indicator lights with the test button mounted adjacent to them on the glare shield. This test showed proper function of all indicator lights.



RECOMMENDATION (How could this accident/incident have been prevented?)

Operator/Owner Safety Recommendation

The fuel system on the Aerostar is known to be a problematic design. Its is also a 41 year old aircraft. We did not spare any expense on maintaining this aircraft and still experienced multiple mechanical failures that were fixed imidiately. We did not let flight schedules dictate when the maintanace was done, quite the opposite. However, each time before this the failure presented itself immediately. Unfortunately, this time, it was an insidious failure and it cost us the aircraft. Had the low fuel warning light come on to warn me of 12-16 gallons remaining, I would have had plenty on time and options to find an alternate airport to make a safe landing at. At that point would have known the Shadin was incorrect, and to not rely on its accuracy. This is all speculation however that the cause of the accident was caused by fuel exhaustion. It very well could have been caused by someting I am not able to diagnose from my recolection of events and I want to make that perfectly clear. I do not know with absolute certainty what caused the engines to fail.

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)Was there Mechanical Malfunction/Failure? ☒ Yes ☐ No

(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)

At this point all I can do is speculate that the Low fuel warning system float switch had failed mechanically, It has functioned properly in the past for me though when the plane was low on fuel. Possibly there was a fuel leak somewhere in the system to cause the discrepency with the Shadin. Other than that I know both engines shutdown due to what seemed to be fuel starvation. However, I am not able to eliminate the possibility of there having been other failures to lead to the fuel starvation/engine failure.

**Total Time/Cycles
On Part**

_____ Hours

_____ Cycles

**Time Since This Part
Inspected/Overhauled**

_____ Hours

FUEL & SERVICES INFORMATION**Fuel on Board at Last Takeoff**

(Convert from pounds, as necessary)

73.8 Gallons**Fuel Type**☐ 80/87☐ 115/145☐ Jet B☐ Other, specify _____☒ 100 Low Lead☐ Jet A☐ JP8☐ 100/130☐ Jet A-1☐ Automotive**Other Services, if Any, Prior to Departure****EVACUATION OF AIRCRAFT**Was an emergency evacuation of the aircraft performed? ☒ Yes ☐ No**Method of Exit** – Describe how the occupants exited and how many occupants evacuated each location

I exited from the clamshell door as the only occupant.

OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for other aircraft)**Aircraft Registration Number**

Manufacturer: _____**Model:** _____**Damage to Other Aircraft**☐ Destroyed☐ Minor☐ Substantial☐ None**Registered Owner of Other Aircraft**

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

Pilot of Other Aircraft

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

ADDITIONAL INFORMATION (Please type or print in ink)

Use this space if additional space is needed for any answers.

I departed KFSD at 5:23 CDT and requested flight following on climb out. The route to Wichita was direct at 7500 ft with a quick climb to 8500 to maintain VFR over a few scattered clouds just before I started a 500fpm descent 50 NM North of KAAO. This would allow me to maintain 200 KTS ground speed at an even further reduced power setting. Shortly after starting the descent the Shadin alerted me to 45 minutes of fuel remaining which would put me landing pretty close to my 30 minute reserve. I once again checked the function of the low fuel warning light and it passed the check. I would be in a slight nose down attitude and would no longer be able to rely on the fuel gauges. At this point I was in range to receive automated weather transmissions for KAAO. The weather at Jabara was favoring a downwind approach from the north to land on runway 36. ATC requested I maintain at or above 4000 until some traffic had passed and at that point I had the field in sight and cancelled flight following and changed frequencies to Jabara UNICOM. At 15 miles north of the field I radio'd my intentions to land on 36 via an extended Downwind and there was one Hawker Jet on a base approach that would land well before me. At this point I noticed on my MFD multiple slower aircraft all converging towards KAAO at varying distances and decided to radio in to ask if there was any other traffic inbound to KAAO with no replies. A few minutes later at 10 miles north of the field a Cessna called in that he was less than 5 miles from the field entering a downwind. At this point I knew I would have to slow down for the Cessna because I would not be able to pass him safely. I once again checked my low fuel light to make sure I didn't need to request priority to land, it still had not illuminated, the Shadin showed 33-36 minutes of fuel remaining as I was adjusting power levels and fuel levels.

At 2800 ft MSL and roughly 8 miles to the field I reduced power, pitched for level flight and waited for my indicated speed to drop below 174kts in order to add 20 degrees of flaps. As soon as the drag was introduced the plane began to buck back and forward and the engines were throttling up and down on their own. The right engine seemed to be sputtering and popping more than the right so I decided to raise the flaps, shut down and feather the right engine and declare Mayday. I thought if the left engine would stay up I could possibly make a straight in landing on 18. I declared this to be my intention. I pitched for blue line and pointed the nose at the runway. However, the left engine was slowly spooling down and the plane was not able to maintain airspeed or altitude. At this point I had three options, WEBB road, highway 254 or find a field, possibly a smaller crossroad. 254 was not going to work because traffic regularly travels at an excess of 80 mph and I had no thrust to control where and when I would be landing. Webb road is both flanked by and crossed with power lines as well as being 4 lanes of moderate traffic going both directions. For the same reason I did not feel this would be safe either. The plane was now rapidly losing airspeed and altitude so I knew a field would be my best option so I incorrectly declared over the radio that I would be putting it down in a field "3 miles South of the runway" I meant North but at the time the fixation on runway 18, the amount of information I was processing and my general southbound heading are possibly all reasons I said south. I pitched the nose down as the Airspeed approached VMC and used the little remaining attitude I had to maintain airspeed enough to turn east to avoid power lines, lower the gear and flare the plane to reduce energy on impact as much as I could. The plane impacted the ground at a full stall. The short wing of the Aerostar does not make for a good glider and what little airspeed I had left was not sufficient to make for a soft landing. After impact I remember snapshots of the plane yawing to the right and coming to an abrupt stop. As soon as the plane stopped I got out and walked away from the wreckage to make sure there was no threat of fire. I waited a few moments to collect myself and make sure there were no fires then went back to the plane to shutdown all the electronics and battery as well as grab my cell phone to call 911. The plane never caught fire and generally stayed in one piece. There was no wreckage spread throughout the field.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Date of this Report

Name of Pilot/Operator: Jacob Feist Alefs

07/09/2021

mm/dd/yyyy

Signature: _____

— or — ☒ Check here to electronically sign this document

If a Person Other than Pilot/Operator is Filing Report

Name: _____

Title: _____

Signature: _____

— or — ☐ Check here to electronically sign this document

FOR NTSB USE ONLY

NTSB Accident/Incident No.
CEN21LA302

Reviewed by NTSB Regional Office
CEN - Central Regional Office

Name of Investigator
Michael J. Hodges

Date Report Received
07/09/2021