

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: Des Moines State: IA

ZIP: 50321 Country: USA

Latitude: 41.555583 Longitude: -93.691439

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

Accident/Incident Date/Time

Date: 08/13/2016 Local Time: 10:00
mm/dd/yyyy

Time Zone: CENTRAL

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

AIRCRAFT INFORMATION

Registration Number: N314BF

Manufacturer: Cirrus

Model: SR20

Serial Number: 1055

Year of Manufacture: 2000

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

☒ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 3000 lbs

Weight at Time of Accident/Incident: 2992 lbs

Number of Seats: 4 Flight Crew Seats: 1

Cabin Crew Seats: _____ Passenger Seats: 3

Number of Engines: 1

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

Engine Type (Select one)

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

Fuel System Type (Reciprocating)

- ☐ Carburetor
- ☐ Fuel-Injected

Engine	Engine Manufacturer	Engine Model/Series	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	TCM	R-IO360ES16B	1000059	03/16/2009	200	621.1	66.5	
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 05/19/2016
mm/dd/yyyy

Airframe Total Time: 1631.5 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: hand-operated extinguisher

Propeller 1

- ☐ Fixed Pitch
- ☒ Controllable Pitch
- ☐ Ground Adjustable

Manufacturer: Hartzell

Model: BHC-J2YF-1BF/F7694

Propeller 2

- ☐ Fixed Pitch
- ☐ Controllable Pitch
- ☐ Ground Adjustable

Manufacturer: _____

Model: _____

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: _____

Model or Part No.: _____

TSO No.: ☐ OC91 (121.5 MHz) ☐ OC91a (121.5 MHz)
☐ OC126 (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: Alidade Partners LLCCity: CharlottesvilleState: VAZIP: 22911Fractional Ownership Aircraft: ☐ Yes ☒ NoCountry: USA**Operator of Aircraft**☐ Same As Registered Owner☒ Same Address as Registered OwnerName: George Brian KesterCity: Charlottesville

Doing Business As: _____

State: VAZIP: 22911

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

Country: USA**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: Des Moines International AirportDistance From Airport Center: 2.3 smAirport Identifier: KDSMDirection From Airport: 307 degrees trueProximity to Airport: ☒ Off Airport/Airstrip ☐ On Airport/Airstrip ☐ N/AAirport Elevation: 957 ft. msl**Runway Information**Runway ID: 31 (L/R/C) Length: 9002 ft Width: 150 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: George City of Residence: Charlottesville
 Middle Initial: B State: VA ZIP: 22911
 Last Name: Kester Country: USA
 Age at time of Accident/Incident: 42 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

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

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

02/08/2013
 mm/dd/yyyy

Medical Certificate Limitations

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks:

03/23/2016
 mm/dd/yyyy

Flight Review Aircraft

Make: Cessna
 Model: 172

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

Type Ratings

Student Endorsements (Include dates)

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	252	66	252	0						
Pilot in Command (PIC)	211	66	211	0						
Time as Instructor	0	0	0	0						
This Make/Model										
Last 90 Days	66	66	66	0						
Last 30 Days	37	37	37	0						
Last 24 Hours	0	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

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

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

_____ mm/dd/yyyy

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) (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

Type Ratings

Student Endorsements (Include dates)

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										
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 ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown		
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer					Restraint Type: 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		
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 ☐ Unknown		☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown		
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer					Restraint Type: 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		
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: <u>Andrea</u> City : <u>Charlottesville</u> Middle Initial: <u>C</u> State: <u>VA</u> ZIP: <u>22911</u> Last Name: <u>Kester</u> Country: <u>USA</u> ☐ Crew ☒ Passenger ☐ Other			☐ Left ☐ Center ☒ Right ☐ Unknown Row: <u>1</u>	☒ 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: <u>Elizabeth</u> City : <u>Charlottesville</u> Middle Initial: <u>L</u> State: <u>VA</u> ZIP: <u>22911</u> Last Name: <u>Kester</u> Country: <u>USA</u> ☐ Crew ☒ Passenger ☐ Other			☐ Left ☐ Center ☒ Right ☐ Unknown Row: <u>2</u>	☐ 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: <u>Adam</u> City : <u>Charlottesville</u> Middle Initial: <u>T</u> State: <u>VA</u> ZIP: <u>22911</u> Last Name: <u>Kester</u> Country: <u>USA</u> ☐ Crew ☒ Passenger ☐ Other			☒ Left ☐ Center ☐ Right ☐ Unknown Row: <u>2</u>	☐ 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>KDSM</u> City: <u>Des Moines</u> State: <u>IA</u> Country: <u>USA</u>	Time of Departure Time: <u>09:55</u> Time Zone: <u>CENTRA</u>	Destination Airport ID: <u>I68</u> City: <u>Lebanon</u> State: <u>OH</u> Country: <u>USA</u>	Type Flight Plan Filed ☐ None ☐ Company VFR ☐ Military VFR ☐ VFR ☐ VFR/IFR ☒ IFR ☐ Unknown 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 G ☐ Military Operations Area (MOA) ☐ Special ☐ Class B ☐ Demo Area ☐ Airport Advisory Area ☐ Air Traffic Control Area ☒ Class C ☐ Warning Area ☐ Jet Training Area ☐ Unknown ☐ Class D ☐ Prohibited Area ☐ TRSA ☐ Class E ☐ Restricted Area ☐ FAR 93			Altitude of In-Flight Occurrence: <u>1857</u> ft msl

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply) ☐ National Weather Service ☐ Company ☐ Flight Service Station ☐ Military ☐ TV/Radio ☒ Internet ☒ Automated Report ☐ None ☐ Commercial Weather Service (DUATS) ☐ Unknown ☒ On-Board Weather		Weather Observation Facility Facility ID: _____ Observation Time: _____ Time Zone: _____ Distance from Accident Site: _____ nm Direction from Accident Site: _____ 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 _____ ft agl		Ceiling ☒ None (Clear) ☐ Obscured ☐ Broken ☐ Indefinite ☐ Overcast ☐ Unknown Ceiling Height _____ ft agl																													
Wind Direction ☐ Variable -or- Direction: <u>330</u> degrees true		Wind Speed ☐ Calm ☐ Light and Variable -or- Speed: <u>7</u> kts	Wind Gusts ☒ Not Gusting -or- Speed: _____ kts																												
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																													
Icing Forecast <table border="0"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td>☒ None</td> <td>☒ N/A</td> </tr> <tr> <td>☐ Trace</td> <td>☐ Rime</td> </tr> <tr> <td>☐ Light</td> <td>☐ Clear</td> </tr> <tr> <td>☐ Moderate</td> <td>☐ Mixed</td> </tr> <tr> <td>☐ Severe</td> <td>☐ Unknown</td> </tr> <tr> <td>☐ Unknown</td> <td></td> </tr> </table>		Amount	Type	☒ None	☒ N/A	☐ Trace	☐ Rime	☐ Light	☐ Clear	☐ Moderate	☐ Mixed	☐ Severe	☐ Unknown	☐ Unknown		Icing Actual <table border="0"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td>☒ None</td> <td>☒ N/A</td> </tr> <tr> <td>☐ Trace</td> <td>☐ Rime</td> </tr> <tr> <td>☐ Light</td> <td>☐ Clear</td> </tr> <tr> <td>☐ Moderate</td> <td>☐ Mixed</td> </tr> <tr> <td>☐ Severe</td> <td>☐ Unknown</td> </tr> <tr> <td>☐ Unknown</td> <td></td> </tr> </table>		Amount	Type	☒ None	☒ N/A	☐ Trace	☐ Rime	☐ Light	☐ Clear	☐ Moderate	☐ Mixed	☐ Severe	☐ Unknown	☐ Unknown	
Amount	Type																														
☒ None	☒ N/A																														
☐ Trace	☐ Rime																														
☐ Light	☐ Clear																														
☐ Moderate	☐ Mixed																														
☐ Severe	☐ Unknown																														
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☐ Moderate	☐ Mixed																														
☐ Severe	☐ Unknown																														
☐ Unknown																															
Visibility <u>10</u> miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ ft		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																													
Turbulence Type (Check all that apply) ☒ None ☒ Clear Air ☐ Terrain-Induced ☐ Convective Turbulence		Severity ☐ Light ☐ Moderate ☐ Severe ☐ Extreme																													

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

DSM 08/8018 NAV ILS RWY 05 LOC/GP/DME OUT OF SERVICE 1608161300-1608162000; DSM 08/8016 NAV ILS RWY 31 LOC/GP/DME OUT OF SERVICE 1608151330-1608152030; DSM 08/8015 NAV ILS RWY 13 UNUSABLE DA TO TDZ 1608151330-1608152030; DSM 08/8018 NAV ILS RWY 31 LOC/GP/DME OUT OF SERVICE 1608151330-1608152030; FDC null/5976 IAP U.S. DOD DES MOINES INTL, DES MOINES, IA. HI ILS OR LOC RWY 31, AMDT 7... DISREGARD MM INDICATIONS. 15 MAR 18:14 2016 UNTIL 25 OCT 18:14 2016 ESTIMATED. CREATED 15 AMR 18:15 2016

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)*

Just before ground impact, aircraft struck and severed power lines. Fire started on ground after forced landing, presumably from power lines igniting fuel leaking due to impact damage. Aircraft and contents were almost entirely consumed by fire.

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.

Narrative Statement Attached

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

Operator/Owner Safety Recommendation

I spared no expense in maintaining this aircraft for the very short time I owned it. My "pre-buy inspection" in May-2016 was a full annual inspection performed by a Cirrus Authorized Service Center. All airworthiness items and recommended items were addressed at expense shared between the previous owner and myself. I hired an oil change service and visual inspection of the engine from my local mechanic just prior to leaving for my family's long trip to Wyoming which included the accident flight. My pre-flight checks prior to the accident flight were thorough. The engine failure was unexpected and inexplicable. Assuming maintenance and inspections were performed correctly, I can think of nothing that could have been done to prevent this accident.

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.)

TCM R-I0360ES16B S/N 1000059: loss of power during initial climb

Engine Component Information Sheet attached

**Total Time/Cycles
On Part**621.1 Hours

Cycles

**Time Since This Part
Inspected/Overhauled**66 Hours**FUEL & SERVICES INFORMATION****Fuel on Board at Last Takeoff**

(Convert from pounds, as necessary)

56 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

Because of fire on the left side, all three passengers exited through the right passenger door on to the wing and jumped to the ground. I (pilot) followed using the same route and method.

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.

My active Pilot's Log was destroyed in the fire. My flight time given above was estimated from the following sources: (1) prior flight log #1 from first instructional flight through instrument rating, (2) aircraft flight log from prior airplane flown, (3) rental record from rental aircraft, (4) photo of N314BF aircraft flight log for period 5/19/2016 through 7/4/2016, and (5) my memory and other records of my flights in N314BF after 7/4/2016. Though estimated, I believe the figures to be highly accurate. Supporting details available on request.

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

Date of this Report

08/18/2016

mm/dd/yyyy

Name of Pilot/Operator: George Brian Kester

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.

CEN16LA320

Reviewed by NTSB Regional Office

NTSB, Central Region

Name of Investigator

Andrew Todd Fox

Date Report Received

18 August 2016

Statement: George Brian Kester 8/18/2016

On August 13, 2016 at approximately 10:00 AM, I was forced by engine malfunction into a decision to land my Cirrus SR20 (S/R 1055 Tail# N314BF) off-field near Des Moines International Airport (KDSM). The following is my recollection of the time preceding, during, and following the event.

My family and I arrived at the general aviation terminal operated by Elliott Aviation shortly after 9 AM. We had landed two days prior on the second of two legs of our return trip from Cody, Wyoming (KCOD) to our home airport in Charlottesville, Virginia (KCHO). We stopped in Des Moines with plans to attend the Iowa State Fair on Friday and we did so. Our Saturday plans included two flights to get home to Charlottesville. Weather permitting, we hoped to fly to Lebanon, Ohio (I68) to buy fuel and have lunch with family members living near there. I had briefed the flight and weather earlier that morning using Foreflight. Because of a Convective SIGMET and radar-indicated thunderstorm activity on our route, a very likely Plan-B was to stop near Indianapolis to wait out the storm. With a Stratus 2S and two iPads with Foreflight on board, I planned to monitor the weather in-flight expecting to deviate. On our outbound route, we stopped at Greenwood Municipal Airport (KHFY) south of Indianapolis and that was my likely deviation destination. I filed an instrument flight plan to Lebanon via Foreflight. At the airport, I found the airplane at the same tie-down spot where I had left it previously and I conducted my preflight checks. On arrival Thursday, I had requested top-off fuel service from Elliott. During pre-flight, I confirmed full tanks and tested the fuel at each wing tank's two sample drains and the under-fuselage gascolater sample drain. In all five cases, I found no evidence of water contamination and the fuel showed the expected blue color of 100LL. Oil checked by dipstick indicated normal at over 7 quarts. All other pre-flight checks showed normal conditions.

I loaded our luggage and my three family member passengers into the airplane and continued with my in-cockpit pre-flight checks: all showed normal. After having noticed the right fuel tank was very slightly more full, I set the fuel control to the right tank. I also pulled the Cirrus Airframe Parachute System (CAPS) safety pin per protocol. Using standard cold start procedures, engine start-up was immediate and normal. After avionics start-up and checks, I taxied out from the tie-down spot to a location approaching the taxiway where I would be in view from the tower. I listened to the ATIS radio broadcast indicating VMC, noted the details on my kneeboard, and set my Altimeter. I then radioed Clearance Delivery for IFR clearance, received it, and noted the details on my kneeboard. After programming my route and Departure Control frequency into NAVCOMM-1 (GNS430W) and the route into NAVCOMM-2 (GNS430), I radioed Ground Control and requested taxi clearance. I was given clearance to taxi to Runway-31 at intersection Romeo and was told that though not full-length, this would provide 5,000+ feet of runway. I accepted the clearance and taxied into position holding short of Runway-31. I then conducted my standard pre-takeoff checks including an engine run-up and magneto checks. All instrument indications and engine sounds were normal. I radioed Tower requesting takeoff clearance. After an initial hold for landing traffic, I was cleared for takeoff and given an initial heading, 330, I believe.

With flaps at 50%, fuel pump set to Boost, full rich mixture, full throttle, and all engine instrument readings in the green, takeoff was normal with airspeed developing as usual and rotation at 70 KIAS. My initial climb rate was normal as I pitched to maintain 90-95 KIAS on the assigned heading. At that speed and at 500-600 feet AGL, I raised flaps up to 0%. I received and acknowledged radio direction from Tower to contact Departure Control. Immediately after switching frequencies in NAVCOMM-1, I heard and felt a sudden reduction in engine power. I switched NAVCOMM-1 frequency back to Tower and radioed "Tower, 4BF, have engine trouble, turning back." Tower acknowledged and approved a right downwind to Runway-31. At the same time, I looked down and touched my engine controls to verify fuel pump was On in Boost mode, throttle was full forward, and fuel mixture was full rich. With the engine at significantly reduced power, my climb rate

quickly dropped. My estimated altitude was 800-900 feet AGL and I knew that I was at or approaching the minimum altitude for safe deployment of the CAPS, so I stopped engine troubleshooting and changed objectives to emergency landing. I looked out the cockpit windows for a place to put down. I saw residential buildings to my right, commercial buildings ahead, and an open grassy area to my left. I chose the area to the left as the best option and steered the plane in that direction, but I saw a significantly undulating topography and judged that a normal landing would not likely be successful. Accordingly, I decided to activate the CAPS. I radioed tower "have engine failure, deploying CAPS," pulled the CAPS cover, and pulled the CAPS handle. Pressure from my right arm alone was insufficient, so I pulled with both hands and successfully activated the system.

The CAPS rocket fired almost immediately and I felt a backwards acceleration of the airplane as the parachute inflated and caught air. As expected, the airplane moved to a nose-down attitude under the parachute. At that point, I saw through the cockpit window that we were very close to the ground and headed for several power lines. Just before reaching the power lines, the CAPS returned the airplane to a nose-level attitude after which the right wing struck the power lines yielding sparks and bright blue flashes of light. The aircraft continued towards the ground and impacted wheels-down and nose-level. The impact was remarkably soft which indicated to me a successful parachute operation.

After a very short moment of relief, I looked out the pilot's window and saw fire under the left wing from the ground coming up around the wing. I immediately directed my passengers "OUT, OUT, OUT!" and gestured towards the passenger door beyond which I saw no fire. My front passenger, my wife, was able to open the passenger door and assist my two rear passengers, my children, on to the wing. By that point, fire had moved underneath the passenger side as well and they jumped from the wing to an area beyond the fire. While they were exiting, I turned the fuel selector to the Off position hoping to stem the fire, unbuckled my seatbelt, and raised up out of my seat. I looked back to verify all passengers were out and was tremendously relieved to find empty seats. On exiting the passenger door, the fire was intense and growing. I also had to jump from mid-wing to the ground beyond the fire. My family and I met on the grassy area away from the plane and I conducted them further back from the growing fire. I then called 911 from my cell phone which was in my pocket and advised the call taker that all my passengers were safely out and that there was power line involvement/hazard on scene. Emergency crews arrived shortly thereafter, checked us for injury, and tended to the fire. Neither I nor my passengers sought medical attention, though we did have minor injuries that revealed themselves later. My son suffered a minor injury to his heel from the jump. My daughter reported a small scratch on her knee. I suffered minor radiant heat burns to the right side of my head and right elbow from the fire and a sprained right ankle from the jump. My wife reported no injuries.

The emergency crews were amazingly fast in their response and wonderfully attentive to my family and me. They included the Des Moines police department, Des Moines Fire Department, Airport Fire Department, Airport Police Department, Polk County Emergency Management, Transportation Security Administration, Federal Aviation Administration, American Red Cross, and likely others that I did not note. Several bystanders also stopped to give help. We are deeply grateful to each of the individuals there for their care and assistance.

- GBK