NATIONAL TRANSPORTATION SAFETY BOARD
PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT
This form to be used for reporting civil and public use aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location

Nearest City/Place: FORT PIERCE State: FL

ZIP: 34946 Country: USA

Latitude: 27:29.76N (dd:mm:ss N/S) Longitude: 080:22.62W (ddd:mm:ss E/W)

Date/Time

Date: 04/29/2014 *mm/dd/yyyy* Local Time: 13:42

Time Zone: EST

Phase of Operation

☐ Standing ☐ Takeoff (incl. initial climb) ☐ Cruise ☐ Hover
☐ Taxi ☐ Climb ☐ Maneuvering ☐ Other
☐ Descent ☑ Landing ☐ Approach ☐ Unknown

Collision with Other Aircraft

☐ Midair
☐ On-ground
☑ None

Altitude of In-Flight Occurrence

24 ft MSL

AIRCRAFT INFORMATION

Manufacturer: BEECHCRAFT

Model: BE-76 DUCHESS

Serial Number: ME-346

Registration Number: N6756X **Amateur-built:** ☐ Yes ☑ No

Max Gross Weight: 3,900 lbs

Weight at Time of Accident/Incident: 3,435 lbs

Location of Center of Gravity at Time of Accident/Incident:

110.1 inches from ☐ nose or ☑ datum

-or- _____ Percent Mean Aerodynamic Cord (% MAC)

Category of Aircraft

☑ Airplane
☐ Balloon
☐ Blimp/Dirigible
☐ Glider
☐ Gyrocraft
☐ Helicopter
☐ Powered lift
☐ Ultralight
☐ Unknown

Type of Airworthiness Certificate

(Check all that apply)

Standard
☑ Normal
☐ Utility
☐ Acrobatic
☐ Transport

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

Number of Seats: 4

If Large Aircraft, how many seats for:

Flight Crew: _____

Cabin Crew: _____

Passengers: _____

Landing Gear ☑ Retractable

Check any additional landing gear configuration that applies:

☑ Tricycle ☐ Tailwheel
☐ Amphibian ☐ High Skid
☐ Emergency Float ☐ Skid
☐ Float ☐ Ski
☐ Hull ☐ Ski/Wheel
☐ Unknown

Type of Maintenance Program

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

Last Inspection Type

☑ 100 Hour ☐ Continuous Airworthiness
☐ AAIP ☐ Conditional Inspection
☐ Annual ☐ Unknown

Date Last Inspection: 04/08/2014 *mm/dd/yyyy*

Airframe Total Time: 12,489 hrs

hours measured at *(check one)*

☐ Last Inspection ☑ Time of Accident/Incident

IFR Equipped

☑ Yes ☐ No ☐ Unknown

Stall Warning System Installed

☑ Yes ☐ No ☐ Unknown

Type of Fire Extinguishing System

☐ None
☑ Specify RT A400 ONE HALON FIRE

ELT Installed ☑ Yes ☐ No

ELT Activated ☑ Yes ☐ No

ELT Aided in Locating Accident/Incident

☐ Yes ☑ No

ELT Manufacturer: ACK TECHNOLOGIES INC.

Model/Series: E-01

Serial Number: 062037

Battery Type: E-01 **Battery Exp. Date:** 03/2015

Engine Type

☑ Reciprocating ☐ Turbo Jet
☐ Turbo Shaft ☐ Turbo Fan
☐ Turbo Prop ☐ Unknown

Reciprocating Fuel System Type

☑ Carburetor
☐ Fuel Injected

Propeller

☐ Fixed Pitch
☑ Controllable Pitch

Manufacturer: HARTZELL

Model: HC-M2YR-2CEUF

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. *mm/dd/yyyy*	Engine Rated Power Measured as *(check one)* ☑ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since Inspection (hours)	Time Since Overhaul (hours)
Eng. 1	AVCO LYCOMING	O-360-A1G6D	RL-23428-36A		180	8,242	49	2,022
Eng. 2	AVCO LYCOMING	LO-360-A1G6D	RL-671-71A		180	8,930	49	2,433
Eng. 3								
Eng. 4								

OWNER/OPERATOR INFORMATION

Registered Aircraft Owner

Name: ARI BEN AVIATOR, INC.

Fractional Ownership Aircraft: ☐ Yes ☑ No

Owner Address

City: FORT PIERCE
State: FL ZIP: 34946
Country: USA

Operator of Aircraft ☑ Same As Registered Owner

Name: ARI BEN AVIATOR, INC.
Doing Business As: Aviator College of Aeronautical Science & Technology
Air Carrier/Operator Designator (4 Character Code): BEJS

Operator Address ☑ Same As Registered Owner

City: FORT PIERCE
State: FL ZIP: 34946
Country: USA

Regulation Flight Conducted Under

☑ FAR 91 ☐ FAR 129 ☐ FAR 91 Special Flight ☐ Public Use (select type)
☐ FAR 103 ☐ FAR 133 ☐ Non-US, Commercial ☐ *Federal* ☐ *State* ☐ *Local*
☐ FAR 121 ☐ FAR 135 ☐ Non-US, Non-commercial ☐ Unknown
☐ FAR 125 ☐ FAR 137 ☐ Armed Forces

Revenue Sightseeing Flight

☐ Yes ☑ No

Air Medical Flight

☐ Yes ☑ No

Purpose of Flight
for FAR 91, 103, 133, 137 *(Select one)*

☐ Personal
☐ Business
☐ Executive/Corporate
☐ Other Work Use
☑ Instructional
☐ Ferry
☐ Positioning
☐ Aerial Application
☐ Aerial Observation
☐ Air Drop
☐ Air Race / Show
☐ Flight Test
☐ Public Use
☐ Unknown

Revenue Operation
for FAR 121, 125, 129, 135 *(Select one)*

☐ Scheduled or Commuter
☐ Non-Scheduled or Air Taxi

Domestic or International

☐ Domestic ☐ International

Cargo Operation

☐ Passenger/Cargo
☐ Passenger _____How many?
☐ Cargo _____ lbs
☐ Mail

Type of Commercial Operating Certificate Held
(Check all that apply)

☑ None
☐ Flag Carrier Operating Certificate (121)
☐ Supplemental
☐ Air Cargo
☐ Foreign Air Carriers (129)
☐ Commuter Air Carrier (135)
☐ On-Demand Air Taxi (135)
☐ Large Helicopter (127)
☐ Rotorcraft External Load (133)
- or -
☐ Agricultural Aircraft (137)
☐ Other Operator of Large Aircraft

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

First Name: _____ City: _____
Middle Initial: _____ State: _____ ZIP: _____
Last Name: _____ Country: _____

Pilot of Other Aircraft

First Name: _____ City: _____
Middle Initial: _____ State: _____ ZIP: _____
Last Name: _____ Country: _____

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)

Was there Mechanical Malfunction/Failure? ☐ Yes ☐ No ☑ Unknown
(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)

Total Time/Cycles On Part

_____ Hours
_____ Cycles

Time Since This Part Inspected/Overhauled

_____ Hours

DAMAGE TO AIRCRAFT AND OTHER PROPERTY

Aircraft Damage

☐ None ☑ Substantial
☐ Minor ☐ Destroyed

Aircraft Fire

☑ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Unknown Origin
☐ On-Ground

Aircraft Explosion

☑ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Unknown Origin
☐ On-Ground

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

Aircraft sustained very substantial damages upon forced landing in the drain basin adjacent to runway 10R and taxiway A. The right wing was torn from the wing tip to the main rib prior to the fuel tank, right aileron was also severely damaged and detached partially from the structure. The right wing's main spar was bent aft. The right flap was damaged on its outboard end by the aileron. Right propeller blade, which was in a feathered position, does not show evident damages even though it stroke the soft ground. Right engine, engine nacelle and cowling do not show any evident damages either. The right main gear did not seem to have any damages with the exception of the gear door that was bent slightly outward. The nose section shows intense structural damage most pronounced on the right side. Nose gear was sheared off and was found behind the airplane slightly to the right side of its track. The left engine received substantial damages as the head of the crankshaft was broken off, subsequent to the propeller hitting the ground and separating from the engine by the flange of the crancksaft. Left propeller was found few feet ahead of the airplane on the front left side of the engine nacelle. Blades are curled and the spinner was damaged. The left wing tip showed significant damage as well on the first foot of section from the wingtip inward.

AIRPORT INFORMATION (If the accident/incident occurred on approach, takeoff or within 3 miles of an airport, complete this section)

Airport Identifier: KFPR
Airport Name: Saint Lucie County International Airport
Proximity to Airport ☐ Off Airport/Airstrip ☑ On Airport ☐ On Airstrip

Distance From Airport Center: 0 SM
Direction From Airport: N/A degrees MAG
Airport Elevation: 24 ft. MSL

Approach Segment *(Select one)*

☐ On Instrument Approach ☐ Landing ☐ Base leg ☑ Final ☐ Go Around
☐ Crosswind ☐ Downwind ☐ Low Approach ☐ Aborted Landing (after touchdown)

IFR Approach *(Check all that apply)*

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

VFR Approach *(Check all that apply)*

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

Runway Information

Runway ID: 14 (L/R/C) Length: 4,755 ft Width: 100 ft

Runway/Landing Surface *(Check all that apply)*

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

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 ☐ Unknown
☐ Slush Covered ☐ Vegetation

FLIGHT ITINERARY INFORMATION

Last Departure Point
Airport ID: KFPR
City: FORT PIERCE
State: FL
Country: USA

Time of Departure
Time: 12:30
Time Zone: EST

Destination
Airport ID: KFPR
City: FORT PIERCE
State: FL
Country: 34946

Type Flight Plan Filed
☑ None ☐ VFR/IFR
☐ Company VFR ☐ IFR
☐ Military VFR ☐ Unknown
☐ VFR
Activated? ☐ Yes ☐ No

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 E ☐ Prohibited Area ☐ Jet Training Area ☐ Special
☐ Class B ☐ Class G ☐ Restricted Area ☐ TRSA ☐ Air Traffic Control Area
☐ Class C ☐ Demo Area ☐ Military Operations Area (MOA) ☐ FAR 93 ☐ Unknown
☑ Class D ☐ Warning Area ☐ Airport Advisory Area

Aircraft Load Description *(Check all that apply)*

☑ None ☐ Towing Glider ☐ Parachutists ☐ Livestock
☐ Passengers ☐ Towing Banner ☐ Water ☐ Unknown
☐ Cargo ☐ Other External ☐ Chemical/Fertilizer/Seeds

FUEL & SERVICES INFORMATION

Fuel on Board at Last Takeoff
(convert from pounds, as necessary)
100 Gallons

Fuel Type

☐ 80/87 ☐ 115/145 ☐ JP3 ☐ Other, specify
☑ 100 Low Lead ☐ Jet A ☐ JP4
☐ 100/130 ☐ Automotive ☐ JP5

Other Services, if Any, Prior to Departure

Pilot added one quart of oil in the right engine during preflight.

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

Both Pilots and Instructors used their respective doors to exit the airplane. No other occupants were on board of the airplane.

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Weather Observation Facility

Facility ID: KFPR

Observation Time: _____

Time Zone: EST

Distance from Accident Site: 0 NM

Direction from Accident Site: N/A degrees MAG

Source of Weather Information *(Check all that apply)*

☐ National Weather Service ☐ Company
☐ Flight Service Station ☐ Military
☐ TV/Radio ☐ Internet
☐ Automated Report ☐ Unknown
☑ Commercial Weather Service (DUATS)

Method of Briefing *(Check all that apply)*

☐ In Person
☐ Teletype
☑ Telephone/Computer
☐ Aircraft Radio
☐ TV/Radio
☐ Unknown

Briefing Type/Completeness

☑ Full ☐ Abbreviated
☐ Partial / Limited By Pilot ☐ Unknown
☐ Partial / Limited By Briefer ☐ Not Pertinent

Light Condition

☐ Dawn ☐ Dusk ☐ Dark Night
☑ Day ☐ Night ☐ Bright Night
☐ Not Reported

Visibility

10 miles

Sky/Lowest Cloud Condition

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

Ceiling

☑ None (clear) ☐ Obscured
☐ Broken ☐ Indefinite
☐ Overcast ☐ Unknown

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

Lowest Cloud Condition Height

_____ ft AGL

Ceiling Height

_____ ft AGL

Wind Direction

☑ Indicated: 130 degrees MAG

☐ Variable

Wind Speed

Velocity: 22 KTS

-or-

☐ Calm
☐ Light and Variable

Wind Gusts

Velocity: 30 KTS

☑ Gusting
☐ Not Gusting

Type of Turbulence *(Check all that apply)*

☐ None ☐ In Clouds
☑ Clear Air ☐ Vicinity of Thunderstorm

Severity of Turbulence

☐ Extreme ☐ Moderate ☑ Light
☐ Severe ☑ Moderate Chop

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

!FPR 04/015 FPR RWY 10R/28L CLSD 1404281100-1405162100EST
!FPR 04/008 FPR OBST TOWER LGT (ASR 1032455) 272608.20N0802140.60W (3.7NM S FPR) 536FT (518FT AGL) OUT OF SERVICE 1404170611-1405020611
!FPR 04/012 FPR OBST TOWER LGT (ASR 1027954) 272655.50N0802927.20W (7.1NM WSW FPR) 365FT (342FT AGL) OUT OF SERVICE 1404230744-1405080744
!FPR 01/006 FPR NAV LUUCE NDB/ILS RWY 10R LO OTS
!FPR 04/020 FPR NAV NDB OUT OF SERVICE 1404281522-1405302000EST
!FPR 04/018 FPR TWY B BTN RWY 10R/28L AND TWY A CLSD 1404281100-1405162100EST
!FPR 04/017 FPR TWY A1, A2, A3, A4 CLSD 1404281100-1405162100EST
!FPR 04/004 FPR TWY F2 HOLDING POSITION SIGN FOR RWY 10L/28R NOT LGTD 1404052050-1405312359EST
!FPR 04/019 FPR TWY E BTN RWY 10R/28L AND TWY A CLSD 1404281100-1405162100EST
!FPR 03/011 FPR TWY A BTN TWY E AND TWY D CLSD 1403251200-1404301200EST

Temperature: 31 (C) or 88 (F)

Altimeter Setting: 29.95 in. HG or _____ MB

Density Altitude: 2,183 ft

Dew Point: 22 (C) or 72 (F)

Icing Forecast

Amount		Type
☑ None	☐ Moderate	☐ Rime
☐ Trace	☐ Severe	☐ Clear
☐ Light		☐ Mixed

Icing Actual

Amount		Type
☑ None	☐ Moderate	☐ Rime
☐ Trace	☐ Severe	☐ Clear
☐ Light		☐ Mixed

Type of Precipitation *(Check all that apply)*

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

Intensity of Precipitation

☐ Light ☐ Moderate ☐ Heavy

PILOT "A" INFORMATION

Pilot "A" Responsibilities at the Time of Accident/Incident

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

Pilot "A" Identification

First Name: MARCOS
Middle Initial: A
Last Name: COLI

City: DUXBURY
State: MA ZIP: 02332
Country: USA

Age at time of Accident/Incident: 20 Date of Birth: __ [redacted]1993 *mm/dd/yyyy*

Certificate Number: [redacted]

Degree of Injury
☑ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Seat Occupied
☐ Left ☐ Front ☐ Unknown
☑ Right ☐ Rear
☐ Center ☐ Single

Seat Belt
Used ☑ Yes ☐ No
Available ☐ Yes ☐ No

Shoulder Harness
Used ☑ Yes ☐ No
Available ☐ Yes ☐ No

Pilot Certificate(s) *(Check all that apply)*

☐ None ☐ Student ☐ Recreational ☑ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

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
☐ With limitations/waivers
☐ Unknown

Date of Last Medical
08/15/2011 *mm/dd/yyyy*

Medical Certificate Limitations
NONE

Medical Certificate Waivers
N/A

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: 07/27/2013 *mm/dd/yyyy*

Flight Review Aircraft
Make: CESSNA
Model: C-172 SKYHAWK

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
☐ Free 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
☐ Airplane Single-Engine
☐ Airplane Multi-Engine
☐ Gyroplane
☐ Powered Lift
☐ Instrument Airplane
☐ Instrument Helicopter
☐ Helicopter
☐ Glider
☐ Sport

Type Ratings
None

Student Endorsements *(Include dates)*
N/A

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	267	166	101	166	67	5	75			
Pilot in Command (PIC)	170	147	22	147	63	5	69			
Time as Instructor										
This Make/Model					61	5	69			
Last 90 Days	8	8		8						
Last 30 Days	5	5		5						
Last 24 Hours										

PILOT "B" INFORMATION

Pilot "B" Responsibilities at the Time of Accident/Incident

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

Pilot "B" Identification

First Name: LLOYD
Middle Initial: G
Last Name: GOODEN

City: SEBASTIAN
State: FL ZIP: 32958
Country: USA

Age at time of Accident/Incident: 48 Date of Birth: [redacted]1965 *mm/dd/yyyy*

Certificate Number: [redacted]

Degree of Injury
☑ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Seat Occupied
☑ Left ☐ Front ☐ Unknown
☐ Right ☐ Rear
☐ Center ☐ Single

Seat Belt
Used ☑ Yes ☐ No
Available ☐ Yes ☐ No

Shoulder Harness
Used ☑ Yes ☐ No
Available ☐ Yes ☐ No

Pilot Certificate(s) *(Check all that apply)*

☐ None ☐ Student ☐ Recreational ☑ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

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
☑ With limitations/waivers
☐ Unknown

Date of Last Medical
10/26/2012 *mm/dd/yyyy*

Medical Certificate Limitations
MUST HAVE AVAILABLE GLASSES FOR NEAR VISION

Medical Certificate Waivers

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: 02/01/2013 *mm/dd/yyyy*

Flight Review Aircraft
Make: PIPER
Model: PA-28-161 Warrior

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
☐ Free 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
☑ Airplane Single-Engine
☑ Airplane Multi-Engine
☐ Gyroplane
☐ Powered Lift
☑ Instrument Airplane
☐ Instrument Helicopter
☐ Helicopter
☐ Glider
☐ Sport

Type Ratings
None

Student Endorsements *(Include dates)*
N/A

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	1,335	76	1,062	204	77	25	103	0	0	0
Pilot in Command (PIC)	1,183	71	998	180	70	25	70	0	0	0
Time as Instructor	835	69	765	100	70	20	0	0	0	0
This Make/Model					4	1	3			
Last 90 Days	145	54	91	54	0	12	0	0	0	0
Last 30 Days	58	32	26	32	0	1	0	0	0	0
Last 24 Hours	5	2	3	2	0	0	0	0	0	0

ADDITIONAL FLIGHT CREW MEMBERS (Exclusive of cabin attendants, complete the following information)

Pilot Name and Address

First Name: ______________________ City: ______________________
Middle Initial: ________ State: __________ ZIP: ___________
Last Name: ______________________ Country: ______________________

Degree of Injury
☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Pilot Certificate(s) *(Check all that apply)*
☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

Seat Occupied
☐ Left ☐ Front
☐ Right ☐ Rear
☐ Center ☐ Single
☐ Unknown

Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No

Total Flight Time at the Time of this Accident/Incident: ___________hrs

Pilot Name and Address

First Name: ______________________ City: ______________________
Middle Initial: ________ State: __________ ZIP: ___________
Last Name: ______________________ Country: ______________________

Degree of Injury
☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Pilot Certificate(s) *(Check all that apply)*
☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

Seat Occupied
☐ Left ☐ Front
☐ Right ☐ Rear
☐ Center ☐ Single
☐ Unknown

Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No

Total Flight Time at the Time of this Accident/Incident: ___________hrs

Pilot Name and Address

First Name: ______________________ City: ______________________
Middle Initial: ________ State: __________ ZIP: ___________
Last Name: ______________________ Country: ______________________

Degree of Injury
☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Pilot Certificate(s) *(Check all that apply)*
☐ None ☐ Student ☐ Recreational ☐ Commercial ☐ Flight Engineer ☐ Foreign
☐ Private ☐ Flight Instructor ☐ Sport ☐ Airline Transport ☐ U.S. Military

Seat Occupied
☐ Left ☐ Front
☐ Right ☐ Rear
☐ Center ☐ Single
☐ 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 flight attendants; continue on separate sheet if necessary)

Name and Address	Seat	Crew	Non-Revenue	Revenue	Non-Occupant	FAA	Fatal	Serious Injury	Minor Injury	No Injury	Unknown
First Name: ____ City: ____ Middle Initial: ____ State: ____ ZIP: ____ Last Name: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ City: ____ Middle Initial: ____ State: ____ ZIP: ____ Last Name: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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First Name: ____ City: ____ Middle Initial: ____ State: ____ ZIP: ____ Last Name: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
First Name: ____ City: ____ Middle Initial: ____ State: ____ ZIP: ____ Last Name: ____ Country: ____	____	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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 time and point of departure, intended destination, and services obtained.

The airplane, Beechcraft BE-76 Duchess N6756X, and its crew, Mr. Lloyd Gooden (Flight Instructor) and Mr. Marcos Coli (Student in Training), departed from the Saint Lucie County International Airport (KFPR) at 12:30 EST using runway 14 for departure. They elected to depart on a south easterly heading and then climbed at an altitude of 5,500ft (MSL) to performed series of planned maneuvers in an area located 2 miles of shore between Vero Beach and the Stuart Inlet. These maneuvers included the practice of maneuvering at slow flight, power-off and power-on stalls, steep turns, accelerated stall, VMC Demonstration (the right engine was simulated inoperative), demonstrating the effects of changes in airspeed and drag configurations on the airplane's performance with one engine inoperative ,aka "Drag Demo", (the left engine was then simulated inoperative), and finally a simulated engine failure (using the right engine) followed by a complete engine shutdown. Both instructor and student stated that they followed the recommended procedures (see attached statements). After completing the engine securing checklist, they decided to restart the engine using the standard air-start procedures which implies the use of the unfeathering accumulator. According to both pilots, the airstart attempt was unsuccessful. They decided to follow then the airstart procedure "without unfeatering accumulator" which implies the use of the starter switch. They made 5 unsuccessful attempts. The crew decided then to return back to the Saint Lucie County International Airport (KFPR). At 13:36 EST, the crew contacted the tower and declared the problem, requesting landing. They were asked to enter a 3 mile left base to runway 14. The wind was reported to be from 130 degrees at 22kts gusting 30kts. Upon reaching the base leg, at 1,500ft the instructor, who was assuming the flight controls and PIC authority, slowed the aircraft to 90kts and lowered the landing gear. He noticed a very important sink rate and decided to raise the landing gear to minimize the drag and regain glideslope. Once established on final, back on the glideslope, he then lowered the landing gear again. Soon at this point he noticed again an important decay of performance and was not able to maintatin glideslope. As he came to the conclusion that he would not be able to reach the runway 14, he made a decision to make a right turn and attempt an emergency/forced landing "if not on the runway then the grassy median between runway10R and taxiway A" as the pilot stated.
Halfway through the turn, the pilot noting that he may not complete safely the turn attempted to land the airplane in the drain basin adjacent to runway 10R and taxiway A.
The airplane touched down at almost a 90 degree angle of taxiway A in the drain basin. It appears that the right wing tip hit the ground first, followed by a heavy contact of the aircraft on all landing gears. Impact through the nose wheel was severe enough that it sheared the nosewheel off from the aircraft. The airplane then slid on its nose section, the left propeller dug into the ground and the left wing tip hit the ground. The airplane came to a rest on the embankment of the drain basin few feet short of the taxiway A. The crew exited the airplane safely.

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

Operator/Owner Safety Recommendation

In the aftermath of this accident, based upon the latest information that we have gathered, "we" as the operator have developed the following recommendations based upon the fact that such accident was preventable:
1. Additional effort should be directed towards restarting the engine after complete shutdown when fuel reserves, altitude, airspeed, weather and/or time permit. As well, electrical loads should be monitored to allow sufficient electrical power to be diverted to the starter when needed. Non-essential electrical appliances, including the EFIS/PFD should be turned off to allow the alternator to perform in optimum conditions. Additional time between restart attempts should be provided to allow proper cooling of the starter and prevent its failure as well as ensuring that electrical loads do not suddenly become excessive. If engine does not seem to start, explore potential flooding of the engine and apply "clearing" or flooded-start procedures.
2. If a decision to abort any attempts to restart the engine is made due to the lack of fuel, altitude, airspeed, weather and/or time, or an obvious engine/starter malfunction, then the pilot should declare an emergency immediately. This would allow the crew to receive additional support and services to assist them in their mission.
3. Altitude permitting, the pilot should attempt to fly the airplane at VYSE and gain knowledge of its expected single-engine climb performance; similar attempts could be made with the gear down.
4. Emphasis should be made to all pilots that the optimum rate of descent required to maintain a 3 degree glideslope is a function of the airplane's groundspeed. If on an approach to landing in a single-engine configuration, at VYSE (85kts), with 30kts headwind, the airplane would be traveling at a groundspeed of 55kts, thus requiring a rate of descent of about 300ft/min. If single-engine performance with gear down, indicated anything better than -300ft/min then the stabilized approach could be maintained. Otherwise, the pilot should be delaying the extension of the landing gear capture a higher glideslope and settle for a steeper angle of descent associated with a higher airspeed before lowering the landing gear down.

ADDITIONAL INFORMATION *(Please type or print in ink)*

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

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

Date of this Report	**Signature and Name of Pilot/Operator**
05/01/2014 *mm/dd/yyyy*	Signature: Type or Print Name:

Signature and Name of Person Filing Report if Other than Pilot/Operator

Signature:

Type or Print Name: Pierre F. Lavial

Title: Chief Pilot, Director of Education at Aviator College

FOR NTSB USE ONLY

NTSB Accident/Incident No.	**Reviewed by NTSB Regional Office**	**Name of Investigator**	**Date Report Received**
ERA14CA213	ERA	Gretz	5/1/14

My Name is Lloyd Cooper, and I am a flight Instructor at Aviator College in Fort Pierce, Fl. The Passenger, who a My Student, was Marcos Coti, a candidate for the MEI. On Tuesday, April 29th 2014, we departed Fort Pierce Airport, KFPR on a Training flight in a BE-76 Duchess light twin engine aircraft, Tail # N6756X. Engine Start time was about 1230 local time, and during the pre flight inspection, the only anomaly Noted was that the engine was about 5 1/4 Qts, (Right Engine) so One quart was added. Our initial plan was to depart to the South West, but after take off we noticed that the clouds were too low, so we request and receive an ammended departure to the South East. We then proceeded to climb to an altitude of 5,500 ft MSL, and after performing a pre maneuver checklist and clearing Turns, started doing the maneuvers that were required of the lesson. These Maneuvers were Conducted between the Stuart inlet, and an area known as the moorings. While we were at 5,500 ft MSL and about 2 miles offshore.

The first maneuver that was conducted was slow flight, then moved on to power off Stall, Power on Stall, Steep turns, accelerated Stall, VMC Demo (right Engine simulated inop), Drag Demo (left engine simulated inop), then a Simulated engine failure on the right engine. Please note that clearing turns were done prior to each maneuver. The means of simulating the engine failure was the right Mixture Control. The Student then proceeded through the recommended sequence through memory as follows. Mixtures, props and throttle levers full forward, flaps verify up, gear verify up, Boost pumps on. the Student then properly identified and verified the inoperative engine. He then proceeded to troubleshoot, and then after properly identifying the inoperative engine, proceeded to feather the right engine, and then secured the engine as per the checklist, which was done as a read and do.

After securing the engine, we made a clearing turn 90° to the right, then 90° left to check the area for conflicting traffic. The Student then attempted to restart the engine using the checklist in a read and do protocol and I was verifying his actions using my Checklist. He turned the ~~right~~ magnetos for the right engine to the on position, the right boost pump was turned back on, the right throttle lever was advanced 1/4 as per checklist, the right engine mixture was move forward and the right propeller lever was also moved briskly forward. The Propeller started to turn maybe three or four turns, then Stopped. We then waited about 15 seconds for the engine to fully unfeather, but it did not.

I then instructed the student to proceed to the "STARTING ENGINE WITH INOP FEATHERING ACCUMULATOR" checklist and proceed in a read and do format, reducing speed to 85 KIAS and tried using the Starter. We tried using the start about 4 times, each time cranking for about 10-15 seconds, and then waiting a few seconds for starter to cool. By the ~~fifth~~ fifth attempt, the cranking speed started to slow, which Signalled that the battery may be getting low.

At this point, I made the decision to head to the nearest airport which was KFFR. We the S.
We about Six Miles to the ENE of the airport. I then got the ATIS, ~~contacted the tower~~
While I took the controls, contacted the tower and informed them of our situation and our
Current Position. The tower controller then instructed us to enter a left Base for
Runway 14, and asked us if we would need any assistance. I informed them that I
think that I will be able to make it to the runway.

While on left base, we were at an indicated altitude of about 1500 ft on about a 2 mile left base.
We were cleared to land and so I lowered the landing gear and adjusted my Speed to 90 Kias.
After this, I noticed that our descent rate was very high so I retracted the gear and adjusted
my speed to 85 KIAS which is VYSE to attempt regaining some altitude or minimize the descent
rate. Just about this point, the tower transmitted a wind check stating that the wind were
coming from 130 at approx. 20 Kts gusting to 35 KT. These figures are as best as I can
recall. After turning final, I did a quick estimation and figured the crosswind component
should not exceed the crosswind limits of the Airplane, and then after getting back on
the glide path as per the VASI, I then lowered the gear again, did a final check
of mixture and props full forward and gear indicator showing three green lights.

Then at this point on a Short final, the aircraft descent rate increase and the
wind started Gusting. I covered that we were maintaining 85 Kias while banking into
the operating Engine. At this point we were about 150 ft Indicated and we were
Just Crossing over runway 10 deft. Runway 10R was closed and there was
Barracades on the runway to the left. I then made a quick evaluation of our
Situation, and base on the performance at that point, I felt that even if I raised
the landing gear, a single engine Go-around would be ill advised. So Considering
the safety of the Crew, and the Public, I then decided to set the aircraft down
in the clearest area I could find by making a shallow bank to the right.
that area of runway 10R nearest the ~~departure~~ approach and had the least
amount of barriers. I then attempted to land in the grass in the median between the
Runway 10R and Taxiway Alpha. After verifying that we were both unharmed, we
made a quick egress from the aircraft in case there was a fire. Emergency
Personnel arrived very soon afterwards.

On april 29th at about 12:00pm I started a preflight on aircraft N6756X, everything looked good, fuel tanks were full, and 1 quart of oil was added to the right engine which brought the oil up to about 6½ quarts. We departed to the southwest and then turned to the southeast to find a clear area to practice our manuevers. At 5,500 MSL we did slowflight, Power off stall, Power on stall, steep turns, accelerated stall, vmc demo (right eng. simulated inop), drag demo (left eng. simulated inop). While on a turn to a ~~west~~ south heading the mixture on the right engine was Pulled to simulate an engine failure so we could run through procedure and practice manuevering with one engine inop. I followed the checklist items which included Putting mixture, Propeller, and throttle levers full foward, verifying that the gear and flaps were up, identifying the dead engine and swiftly Pulling the Propeller lever on the inoperative engine to the feathered position. After doing the engine securin checklist we did a turn to the north and proceded to do the engine restart checklist. Pitching for 100 knts I swiftly moved the prop lever to the full foward position. The Propeller rotated a couple of times then stopped, then rotated a couple more times then stopped and was unable to start windmilling. We followed the checklist for starting the engine using the starter. Pitching for 85 knts I moved the magneto switch to the start position. The propeller rotated but was unable to start windmilling. We tried this a few times before deciding to secure the engine and make our way back to the airport for a single engine landing. While on a left base for runway 14 my instructor lowered the gear. Noticing an increase in sink rate he raised the gear in order to maintain a sufficient altitude until we got closer to the runway. on short final we were on glide path or just slightly below as was shown on the Papi indicator. Under the impression that the landing could be made my instructor lowered the gear once again. The sink rate increased more than expected, also the wind was 130@20 gusting 32knts according to a wind check from the tower. We were unable to keep our track towards the runway and were blown to the right. Increasing bank would have also increased sink rate and at this point we were already maintaing Vxse with full Power on the operating engine, with trees and the ground below us quickly approaching a decision was made to leave the gear down because it did not seem we would have adequate Performance for a go-around. an attempt was made to land on a vacant runway or taxiway but we were also unable to make those so he then proceeded to a grass area within reach and away from obstacles and People. He then declared an emergency and slowed the aircraft and flared for impact. After verifying that we were both O.K we exited the aircraft and contacted the school.