

**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: <u>Sunland -Tujunga</u> State: <u>Ca.</u> ZIP: <u>91402</u> Country: <u>USA</u> Latitude: <u>34* 14.758</u> Longitude: <u>-118* 17.984</u> <i>(Enter in decimal degrees or degrees:minutes:seconds)</i>	Accident/Incident Date/Time Date: <u>09/02/2017</u> Local Time: <u>09:48</u> <i>mm/dd/yyyy</i> Time Zone: <u>Pacific Daylight</u>
Collision with Other Aircraft: <input type="radio"/> Midair <input type="radio"/> On-ground <input type="radio"/> None	

AIRCRAFT INFORMATION	
Registration Number: <u>N304FD</u> Manufacturer: <u>Leonardo</u> Model: <u>AW139</u> Serial Number: <u>41528</u> Year of Manufacture: <u>2017</u> Amateur-Built: <input type="radio"/> Yes <input checked="" type="radio"/> No <i>If Yes:</i> <input type="radio"/> Kit/Plans <input type="radio"/> Original Design Make: _____	<input checked="" type="checkbox"/> IFR-Equipped and Certified <input type="checkbox"/> Commercial Space Flight <input type="checkbox"/> Unmanned Aircraft Maximum Gross Weight: <u>15,432</u> lbs Weight at Time of Accident/Incident: <u>13,625</u> lbs Number of Seats: <u>6</u> Flight Crew Seats: <u>4</u> Cabin Crew Seats: _____ Passenger Seats: _____ Number of Engines: <u>2</u>

Category of Aircraft <input type="radio"/> Airplane <input type="radio"/> Balloon <input type="radio"/> Blimp/Dirigible <input type="radio"/> Glider <input type="radio"/> Gyroplane <input checked="" type="radio"/> Helicopter <input type="radio"/> Powered Lift <input type="radio"/> Rocket <input type="radio"/> Ultralight <input type="radio"/> Unknown	Type of Airworthiness Certificate <i>(Check all that apply)</i> <table style="width:100%; border: none;"> <tr> <td style="width: 50%; border: none;"> Standard <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Aerobatic <input type="checkbox"/> Balloon <input type="checkbox"/> Commuter <input type="checkbox"/> Transport <input type="checkbox"/> Utility <input type="checkbox"/> Certificate of Authorization or Waiver (COA) <input type="checkbox"/> None </td> <td style="width: 50%; border: none;"> Special <input type="checkbox"/> Restricted <input type="checkbox"/> Limited <input type="checkbox"/> Provisional <input type="checkbox"/> Special Flight <input type="checkbox"/> Experimental <input type="checkbox"/> Special Light-Sport <input type="checkbox"/> Experimental Light-Sport <input type="checkbox"/> Unknown </td> </tr> </table>	Standard <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Aerobatic <input type="checkbox"/> Balloon <input type="checkbox"/> Commuter <input type="checkbox"/> Transport <input type="checkbox"/> Utility <input type="checkbox"/> Certificate of Authorization or Waiver (COA) <input type="checkbox"/> None	Special <input type="checkbox"/> Restricted <input type="checkbox"/> Limited <input type="checkbox"/> Provisional <input type="checkbox"/> Special Flight <input type="checkbox"/> Experimental <input type="checkbox"/> Special Light-Sport <input type="checkbox"/> Experimental Light-Sport <input type="checkbox"/> Unknown	Landing Gear <i>(Check all that apply)</i> <input checked="" type="checkbox"/> Retractable <input checked="" type="checkbox"/> Tricycle <input type="checkbox"/> Amphibian <input type="checkbox"/> Emergency Float <input type="checkbox"/> Float <input type="checkbox"/> Hull <input type="checkbox"/> Other Launch/Recovery System <input type="checkbox"/> None <input type="checkbox"/> Tailwheel <input type="checkbox"/> High Skid <input type="checkbox"/> Skid <input type="checkbox"/> Ski <input type="checkbox"/> Ski/Wheel <input type="checkbox"/> Unknown	Engine Type (Select one) <input type="radio"/> Reciprocating <input checked="" type="radio"/> Turbo Shaft <input type="radio"/> Turbo Prop <input type="radio"/> Turbo Jet <input type="radio"/> Turbo Fan <input type="radio"/> Electric <input type="radio"/> Liquid Rocket <input type="radio"/> Solid Rocket <input type="radio"/> Hybrid Rocket <input type="radio"/> None <input type="radio"/> Unknown Fuel System Type (Reciprocating) <input type="radio"/> Carburetor <input type="radio"/> Fuel-Injected
Standard <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Aerobatic <input type="checkbox"/> Balloon <input type="checkbox"/> Commuter <input type="checkbox"/> Transport <input type="checkbox"/> Utility <input type="checkbox"/> Certificate of Authorization or Waiver (COA) <input type="checkbox"/> None	Special <input type="checkbox"/> Restricted <input type="checkbox"/> Limited <input type="checkbox"/> Provisional <input type="checkbox"/> Special Flight <input type="checkbox"/> Experimental <input type="checkbox"/> Special Light-Sport <input type="checkbox"/> Experimental Light-Sport <input type="checkbox"/> Unknown				

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. <i>mm/dd/yyyy</i>	Rated Power <input checked="" type="radio"/> Horsepower or <input type="radio"/> lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	Pratt and Whitney	PT6-67C	PCE-KB1913	05/10/16	1531	121.9	NEW	NEW
Eng. 2	Pratt and Whitney	PT6-67C	PCE-KB1942	08/11/16	1531	121.9	NEW	NEW
Eng. 3								
Eng. 4								

Last Inspection Type <input type="radio"/> 100-Hour <input type="radio"/> AAIP <input type="radio"/> Annual <input checked="" type="radio"/> Continuous Airworthiness <input type="radio"/> Conditional Inspection <input type="radio"/> Unknown Date Last Inspection: <u>09/02/17</u> <i>mm/dd/yyyy</i> Airframe Total Time: <u>121.9</u> hrs hours measured at <i>(Select one)</i> <input checked="" type="radio"/> Last Inspection <input type="radio"/> Time of Accident/Incident	Propeller 1 <input type="radio"/> Fixed Pitch <input type="radio"/> Controllable Pitch <input type="radio"/> Ground Adjustable Manufacturer: _____ Model: _____	Propeller 2 <input type="radio"/> Fixed Pitch <input type="radio"/> Controllable Pitch <input type="radio"/> Ground Adjustable Manufacturer: _____ Model: _____
Type of Maintenance Program (Select one) <input type="radio"/> Annual <input type="radio"/> Conditional (Amateur-built only) <input checked="" type="radio"/> Manufacturer's Inspection Program <input type="radio"/> Other Approved Inspection Program (AAIP) <input type="radio"/> Continuous Airworthiness <input type="radio"/> Other, specify: _____	ELT Installed: <input checked="" type="radio"/> Yes <input type="radio"/> No <i>If Yes:</i> ELT Manufacturer: <u>ACR ELETRONICS INC</u> Model or Part No.: <u>C406-24M</u> TSO No.: <input type="radio"/> C91 (121.5 MHz) <input type="radio"/> C91a (121.5 MHz) <input checked="" type="radio"/> C126 (406 MHz) Was ELT still mounted in aircraft? <input type="radio"/> Yes <input type="radio"/> No Was ELT still connected to antenna? <input type="radio"/> Yes <input type="radio"/> No Did ELT Activate? <input type="radio"/> Yes <input checked="" type="radio"/> No <i>If activated:</i> Did ELT Aid in Locating Aircraft: <input type="radio"/> Yes <input checked="" type="radio"/> No <i>If not activated:</i> Indicate Reason: <input type="checkbox"/> Impact Damage <input type="checkbox"/> Fire Damage <input type="checkbox"/> Battery Expired/Damaged <input checked="" type="checkbox"/> Unknown	Additional Equipment (Check all that apply) <input type="checkbox"/> ADS-B <input type="checkbox"/> Airframe Parachute <input type="checkbox"/> Angle of Attack Indicator <input checked="" type="checkbox"/> Autopilot <input checked="" type="checkbox"/> Data Recorder <input type="checkbox"/> Electronic Flight Bag or Handheld Device <input checked="" type="checkbox"/> Electronic Multifunction Display <input checked="" type="checkbox"/> Electronic Primary Flight Display <input type="checkbox"/> Handheld GPS <input type="checkbox"/> Heads Up Display <input type="checkbox"/> Onboard Weather <input checked="" type="checkbox"/> Satellite Tracking Device <input type="checkbox"/> Stall Warning System <input type="checkbox"/> Video Recording Device <input checked="" type="checkbox"/> Other, Specify: <u>Cockpit Voice & EGPWS</u>
Description of Fire Extinguishing System <input type="radio"/> None <input checked="" type="radio"/> Specify: <u>Engine compartment halon & two hand-held in cabin.</u>		

OWNER/OPERATOR INFORMATION

Registered Aircraft Owner

Name: City of Los Angeles

City: Los Angeles

State: CA. ZIP: 91406

Fractional Ownership Aircraft: Yes No

Country: USA

Operator of Aircraft

Same As Registered Owner

Same Address as Registered Owner

Name: Los Angeles Fire Department

City: _____

Doing Business As: Firefighting /SAR / EMS

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: _____
 Airport Identifier: _____
 Proximity to Airport: Off Airport/Airstrip On Airport/Airstrip N/A

Distance From Airport Center: _____ sm
 Direction From Airport: _____ degrees true
 Airport Elevation: _____ ft. msl

Runway Information

Runway ID: _____ (L/R/C) Length: _____ ft Width: _____ 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 Final 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

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)

Crew Name and Address		Seat Occupied	Injury
First Name: _____	City of Residence: _____	<input type="radio"/> Left	<input type="radio"/> None
Middle Initial: _____	State: _____ ZIP: _____	<input type="radio"/> Center	<input type="radio"/> Minor
Last Name: _____	Country: _____	<input type="radio"/> Right	<input type="radio"/> Serious
		<input type="radio"/> Front	<input type="radio"/> Fatal
		<input type="radio"/> Rear	<input type="radio"/> Unknown
		<input type="radio"/> Single	
		<input type="radio"/> Unknown	
Pilot Certificate(s) (Check all that apply)		Restraint Type:	Inflatable Restraints
<input type="checkbox"/> None	<input type="checkbox"/> Flight Instructor	Available	Used
<input type="checkbox"/> Private	<input type="checkbox"/> Recreational	<input type="radio"/> None	<input type="radio"/> None
<input type="checkbox"/> Student	<input type="checkbox"/> Sport	<input type="radio"/> Lap Only	<input type="radio"/> Lap Only
	<input type="checkbox"/> Commercial	<input type="radio"/> 3-point	<input type="radio"/> 3-point
	<input type="checkbox"/> Airline Transport	<input type="radio"/> 4-point	<input type="radio"/> 4-point
	<input type="checkbox"/> Flight Engineer	<input type="radio"/> 5-point	<input type="radio"/> 5-point
	<input type="checkbox"/> US Military	<input type="radio"/> Unknown	<input type="radio"/> Unknown
	<input type="checkbox"/> Foreign		
Type Rating/Endorsement for Accident/Incident Aircraft? <input type="checkbox"/> Yes <input type="checkbox"/> No		Total Flight Time at the Time of this Accident/Incident: _____ hrs	

Crew Name and Address		Seat Occupied	Injury
First Name: _____	City of Residence: _____	<input type="radio"/> Left	<input type="radio"/> None
Middle Initial: _____	State: _____ ZIP: _____	<input type="radio"/> Center	<input type="radio"/> Minor
Last Name: _____	Country: _____	<input type="radio"/> Right	<input type="radio"/> Serious
		<input type="radio"/> Front	<input type="radio"/> Fatal
		<input type="radio"/> Rear	<input type="radio"/> Unknown
		<input type="radio"/> Single	
		<input type="radio"/> Unknown	
Pilot Certificate(s) (Check all that apply)		Restraint Type:	Inflatable Restraints
<input type="checkbox"/> None	<input type="checkbox"/> Flight Instructor	Available	Used
<input type="checkbox"/> Private	<input type="checkbox"/> Recreational	<input type="radio"/> None	<input type="radio"/> None
<input type="checkbox"/> Student	<input type="checkbox"/> Sport	<input type="radio"/> Lap Only	<input type="radio"/> Lap Only
	<input type="checkbox"/> Commercial	<input type="radio"/> 3-point	<input type="radio"/> 3-point
	<input type="checkbox"/> Airline Transport	<input type="radio"/> 4-point	<input type="radio"/> 4-point
	<input type="checkbox"/> Flight Engineer	<input type="radio"/> 5-point	<input type="radio"/> 5-point
	<input type="checkbox"/> US Military	<input type="radio"/> Unknown	<input type="radio"/> Unknown
	<input type="checkbox"/> Foreign		
Type Rating/Endorsement for Accident/Incident Aircraft? <input type="checkbox"/> Yes <input type="checkbox"/> 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: _____ <input type="radio"/> Crew <input type="radio"/> Passenger <input type="radio"/> Other	<input type="radio"/> Left <input type="radio"/> Center <input type="radio"/> Right <input type="radio"/> Unknown Row: ____	<input type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown	Available <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	Used <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown	<input type="checkbox"/> Under 5 years If Under 5, <input type="checkbox"/> Child Restraint <input type="checkbox"/> Lap-Held <input type="checkbox"/> Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ <input type="radio"/> Crew <input type="radio"/> Passenger <input type="radio"/> Other	<input type="radio"/> Left <input type="radio"/> Center <input type="radio"/> Right <input type="radio"/> Unknown Row: ____	<input type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown	Available <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	Used <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown	<input type="checkbox"/> Under 5 years If Under 5, <input type="checkbox"/> Child Restraint <input type="checkbox"/> Lap-Held <input type="checkbox"/> Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ <input type="radio"/> Crew <input type="radio"/> Passenger <input type="radio"/> Other	<input type="radio"/> Left <input type="radio"/> Center <input type="radio"/> Right <input type="radio"/> Unknown Row: ____	<input type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown	Available <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	Used <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown	<input type="checkbox"/> Under 5 years If Under 5, <input type="checkbox"/> Child Restraint <input type="checkbox"/> Lap-Held <input type="checkbox"/> Unknown
First Name: _____ City: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ <input type="radio"/> Crew <input type="radio"/> Passenger <input type="radio"/> Other	<input type="radio"/> Left <input type="radio"/> Center <input type="radio"/> Right <input type="radio"/> Unknown Row: ____	<input type="radio"/> None <input type="radio"/> Minor <input type="radio"/> Serious <input type="radio"/> Fatal <input type="radio"/> Unknown	Available <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	Used <input type="radio"/> None <input type="radio"/> Lap Only <input type="radio"/> 3-point <input type="radio"/> 4-point <input type="radio"/> 5-point <input type="radio"/> Unknown	<input type="checkbox"/> Not Installed <input type="checkbox"/> Installed <input type="checkbox"/> Not Deployed <input type="checkbox"/> Deployed <input type="checkbox"/> Unknown	<input type="checkbox"/> Under 5 years If Under 5, <input type="checkbox"/> Child Restraint <input type="checkbox"/> Lap-Held <input type="checkbox"/> Unknown

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KVNY</u> City: <u>Van Nuys</u> State: <u>Ca.</u> Country: <u>USA</u>	Time of Departure Time: <u>0815</u> Time Zone: <u>PST</u>	Destination Airport ID: _____ City: <u>Green Verdugo Helispot</u> State: <u>Ca.</u> Country: <u>USA</u>	Type Flight Plan Filed <input checked="" type="radio"/> None <input type="radio"/> VFR/IFR <input type="radio"/> Company VFR <input type="radio"/> IFR <input type="radio"/> Military VFR <input type="radio"/> Unknown <input type="radio"/> VFR Activated? <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown
---	--	--	---

Type of ATC Clearance/Service (Check all that apply)

<input type="checkbox"/> None	<input type="checkbox"/> Special VFR	<input type="checkbox"/> Special IFR	<input type="checkbox"/> VFR Flight Following	<input type="checkbox"/> Cruise
<input checked="" type="checkbox"/> VFR	<input type="checkbox"/> IFR	<input type="checkbox"/> VFR On Top	<input type="checkbox"/> Traffic Advisory	<input type="checkbox"/> Unknown / NA

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

<input type="checkbox"/> Class A	<input checked="" type="checkbox"/> Class G	<input type="checkbox"/> Military Operations Area (MOA)	<input type="checkbox"/> Special
<input type="checkbox"/> Class B	<input type="checkbox"/> Demo Area	<input type="checkbox"/> Airport Advisory Area	<input type="checkbox"/> Air Traffic Control Area
<input type="checkbox"/> Class C	<input type="checkbox"/> Warning Area	<input type="checkbox"/> Jet Training Area	<input type="checkbox"/> Unknown
<input type="checkbox"/> Class D	<input type="checkbox"/> Prohibited Area	<input type="checkbox"/> TRSA	
<input type="checkbox"/> Class E	<input type="checkbox"/> Restricted Area	<input type="checkbox"/> FAR 93	

Altitude of In-Flight Occurrence:
1490 ft msl

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply) <input type="checkbox"/> National Weather Service <input type="checkbox"/> Flight Service Station <input checked="" type="checkbox"/> TV/Radio <input checked="" type="checkbox"/> Automated Report <input type="checkbox"/> Commercial Weather Service (DUATS) <input type="checkbox"/> On-Board Weather <input type="checkbox"/> Company <input type="checkbox"/> Military <input checked="" type="checkbox"/> Internet <input type="checkbox"/> None <input type="checkbox"/> Unknown	Weather Observation Facility Facility ID: <u>KVNY ATIS</u> Observation Time: <u>0805</u> Time Zone: <u>PST</u> Distance from Accident Site: <u>11</u> nm Direction from Accident Site: <u>077</u> degrees true
---	--

Basic Conditions <input checked="" type="radio"/> VMC <input type="radio"/> IMC <input type="radio"/> Unknown	Light Condition <input type="radio"/> Dawn <input type="radio"/> Dusk <input type="radio"/> Dark Night <input type="radio"/> Unknown <input type="radio"/> Day <input type="radio"/> Night <input type="radio"/> Bright Night
---	--

Sky/Lowest Cloud Condition <input checked="" type="radio"/> Clear <input type="radio"/> Thin Broken <input type="radio"/> Few <input type="radio"/> Thin Overcast <input type="radio"/> Partial Obscuration <input type="radio"/> Unknown <input type="radio"/> Scattered Lowest Cloud Condition Height _____ ft agl	Ceiling <input checked="" type="radio"/> None (Clear) <input type="radio"/> Obscured <input type="radio"/> Broken <input type="radio"/> Indefinite <input type="radio"/> Overcast <input type="radio"/> Unknown Ceiling Height _____ ft agl	Temperature: <u>29</u> (C) or _____ (F) Dew Point: _____ (C) or _____ (F) Altimeter Setting: <u>29.93</u> in. Hg or _____ MB
--	--	--

Wind Direction <input checked="" type="checkbox"/> Variable -or- Direction: _____ degrees true	Wind Speed <input type="checkbox"/> Calm <input type="checkbox"/> Light and Variable -or- Speed: <u>5 - 15</u> kts	Wind Gusts <input type="checkbox"/> Not Gusting -or- Speed: <u>15</u> kts	Visibility _____ miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ ft
--	---	---	---

Intensity of Precipitation <input type="radio"/> Light <input type="radio"/> Moderate <input type="radio"/> Heavy <input type="radio"/> N/A <input type="radio"/> Unknown	Type of Precipitation (Check all that apply) <input checked="" type="checkbox"/> None <input type="checkbox"/> Drizzle <input type="checkbox"/> Freezing Rain <input type="checkbox"/> Rain <input type="checkbox"/> Ice Pellets <input type="checkbox"/> Snow Shower <input type="checkbox"/> Snow <input type="checkbox"/> Snow Pellets <input type="checkbox"/> Ice Pellets Shower <input type="checkbox"/> Hail <input type="checkbox"/> Snow Grains <input type="checkbox"/> Freezing Drizzle <input type="checkbox"/> Rain Showers <input type="checkbox"/> Ice Crystals	Restriction to Visibility (Check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Fog <input type="checkbox"/> Blowing Dust <input type="checkbox"/> Ground Fog <input type="checkbox"/> Blowing Sand <input type="checkbox"/> Haze <input type="checkbox"/> Blowing Snow <input type="checkbox"/> Ice Fog <input type="checkbox"/> Blowing Spray <input checked="" type="checkbox"/> Smoke <input type="checkbox"/> Dust <input type="checkbox"/> Unknown
---	--	---

Icing Forecast <table style="width:100%;"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td><input checked="" type="radio"/> None</td> <td><input type="radio"/> N/A</td> </tr> <tr> <td><input type="radio"/> Trace</td> <td><input type="radio"/> Rime</td> </tr> <tr> <td><input type="radio"/> Light</td> <td><input type="radio"/> Clear</td> </tr> <tr> <td><input type="radio"/> Moderate</td> <td><input type="radio"/> Mixed</td> </tr> <tr> <td><input type="radio"/> Severe</td> <td><input type="radio"/> Unknown</td> </tr> <tr> <td><input type="radio"/> Unknown</td> <td></td> </tr> </table>	Amount	Type	<input checked="" type="radio"/> None	<input type="radio"/> N/A	<input type="radio"/> Trace	<input type="radio"/> Rime	<input type="radio"/> Light	<input type="radio"/> Clear	<input type="radio"/> Moderate	<input type="radio"/> Mixed	<input type="radio"/> Severe	<input type="radio"/> Unknown	<input type="radio"/> Unknown		Icing Actual <table style="width:100%;"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td><input checked="" type="radio"/> None</td> <td><input type="radio"/> N/A</td> </tr> <tr> <td><input type="radio"/> Trace</td> <td><input type="radio"/> Rime</td> </tr> <tr> <td><input type="radio"/> Light</td> <td><input type="radio"/> Clear</td> </tr> <tr> <td><input type="radio"/> Moderate</td> <td><input type="radio"/> Mixed</td> </tr> <tr> <td><input type="radio"/> Severe</td> <td><input type="radio"/> Unknown</td> </tr> <tr> <td><input type="radio"/> Unknown</td> <td></td> </tr> </table>	Amount	Type	<input checked="" type="radio"/> None	<input type="radio"/> N/A	<input type="radio"/> Trace	<input type="radio"/> Rime	<input type="radio"/> Light	<input type="radio"/> Clear	<input type="radio"/> Moderate	<input type="radio"/> Mixed	<input type="radio"/> Severe	<input type="radio"/> Unknown	<input type="radio"/> Unknown		Turbulence Type (Check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Clear Air <input checked="" type="checkbox"/> Terrain-Induced <input checked="" type="checkbox"/> Convective Turbulence Severity <input type="checkbox"/> Light <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Extreme
Amount	Type																													
<input checked="" type="radio"/> None	<input type="radio"/> N/A																													
<input type="radio"/> Trace	<input type="radio"/> Rime																													
<input type="radio"/> Light	<input type="radio"/> Clear																													
<input type="radio"/> Moderate	<input type="radio"/> Mixed																													
<input type="radio"/> Severe	<input type="radio"/> Unknown																													
<input type="radio"/> Unknown																														
Amount	Type																													
<input checked="" type="radio"/> None	<input type="radio"/> N/A																													
<input type="radio"/> Trace	<input type="radio"/> Rime																													
<input type="radio"/> Light	<input type="radio"/> Clear																													
<input type="radio"/> Moderate	<input type="radio"/> Mixed																													
<input type="radio"/> Severe	<input type="radio"/> Unknown																													
<input type="radio"/> Unknown																														

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

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)*

1. Main rotor blade tip damage.
2. Horizontal stabilizer damage.
3. Damage to tailboom skin.
4. Damage to water tank.

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.

See attachments:

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

Operator/Owner Safety Recommendation

The common aircraft velocity at which the water is released is between 35 and 40 knots indicated. This speed provides for an efficient drop pattern. My recommendation is to keep speeds at 40 knots with a level flight attitude if conditions permit. This will help compensate for the dynamic firefighting environmental conditions that can affect aircraft performance. Additionally, pilots should drop into the wind when at all possible, or at least cross-wind, keeping in mind to stay out of the active fire smoke column and always have an escape route.

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.)

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)
149 _____ 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

Normal shut-down and exit.

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

Aircraft Registration Number _____ **Manufacturer:** _____ **Damage to Other Aircraft**
Model: _____ 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 HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Date of this Report

09/12/2017

mm/dd/yyyy

Name of Pilot/Operator: Lance S. Messner

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.
ANC17LA051

Reviewed by NTSB Regional Office
Alaska Regional Office - ANC

Name of Investigator
Michael J. Hodges

Date Report Received
09/12/2017

On September 2, 2017 at approximately 0730 hours I arrived at my place of assignment (Fire Station 114 Air Operations). Shortly after arriving I received a fire suppression mission at the La Tuna Fire incident.

For the next few minutes I was briefed on the incident particulars including the communications plan, incident location, acres involved, aircraft on scene and the helispot.

While on the flight ramp minutes before departure, I was approached by Pilot 1 Crewman Trainee Amin. Amin motioned that he would like to go. I indicated that it would be ok. Amin proceeded to secure himself in the co-pilot position. The practice of taking Pilot 1 crew trainees on missions is common. This is their opportunity to observe, learn and gain valuable operational experience.

At approximately 0830 hours I departed KVNY (Air Operations) for Green Verdugo Helispot. This transition was about six minutes in duration.

Once cleared from KBUR tower I checked-in with HLCO (helicopter coordinator) and landed at the helispot to fill my water tank.

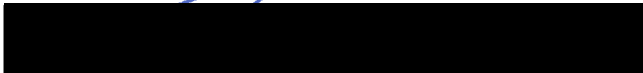
I indicated to helitac personnel that I wanted a half tank of water. I allowed the dash mounted water level lights to indicate $\frac{3}{4}$ full tank. I then motioned to helitac to disconnect the water fill from the aircraft. Quite often pilots will fill to the $\frac{3}{4}$ level while on uneven ground with weight on wheels so as to achieve a $\frac{1}{2}$ level indication in a six degrees nose high hover.

Once cleared for departure from the helispot, I slowly lifted the aircraft to a stabilized hover in order to observe my power index (torque) and my water level. All power settings departing the helispot ranged from 95% to take-off power. In a hover my water level was now indicating $\frac{1}{2}$ tank (two lights). There are two reasons for this technique. (1) To insure I have an adequate power margin. (2) To confirm I am utilizing the appropriate amount of torque for the indicated water level. Additionally, I position my thumb over the water release button.

After approximately six to eight water drops I was at the end of my fuel cycle. I landed at Green Verdugo Helispot to take on water and fuel. I hot fueled to 1000 lbs. indicated.

Once fueled, I again motioned for $\frac{1}{2}$ tank of water and allowed the dash lights to indicate $\frac{3}{4}$ before having helitac disconnect the water supply. Once cleared for departure I lifted to a hover and performed power checks as per previously described. Once again my water level indication was $\frac{1}{2}$ or two lights.

I departed the helispot and was immediately given a structure protection assignment by HLCO.



As I arrived on scene of the designated target, I informed HLCO that I would need to take a recon orbit of the objective area. During the recon I noted the prevailing wind, smoke conditions, ground obstructions and my intended approach and departure route for the water drop.

Previously, I had made several water drops in this general location so I was familiar with the terrain. However, the smoke conditions were measurably worse.

As I lined up for the drop I adjusted my airspeed to 40 knots. I could see the target objective, departure route and beyond. Approximately one hundred feet above tree line and about two or three hundred feet away from the structure, the aircraft began an uncommanded yaw to the right with a sudden increase in my vertical descent rate. I immediately released the water load and said "this doesn't feel right." The aircraft continued to yaw to the right and descend rapidly. At this point I had little positive control of the aircraft.

As I continued to descend and yaw right I noted terrain and the trees that flanked the structure. My crewman verbalized "Trees left". I continued trying to maneuver clear but the aircraft was not completely responding to my control inputs.

The left side main rotor hit the treetops first, followed by the port side body and tail section of the aircraft. At this time the yaw seemed to decrease and I was able to establish positive control and rate of climb.

As I moved away from the trees I was immediately looking for a landing area while radioing that I had an emergency. There was an audible one per revolution noise coming from the main rotor system. As I continued in a left turn my trainee crewman and HLCO both indicated that a football field was coming up on my twelve o'clock position.

I did a quick assessment and decided that the football field would be the best option. As I proceeded to the football field I kept maneuvering to a minimum and my airspeed to approximately 65 knots. I maintained my altitude as long as possible in the event that I would be forced into an autorotation.

I landed at the football field without further incident.



Ps. 2

PILOT 1 CHERIF AMIN
LAFD AIR OPERATIONS
A PLATOON

On Sept. 02, 2017 I was in the copilot seat of Fire 4 with Lance Messner as the PIC. As a pilot trainee on the LAFD, the purpose of my presence on board the aircraft was to gain first hand experience of aerial firefighting. Although I am not type rated in the AW139 I performed what tasks I could as a copilot on the mission. I called out obstructions and aircraft, assisted with radio communications, and monitored fuel and water load.

We departed KVMY to Green Verdugo Helispot to drop water on the La Tuna Fire in the Tujunga area of Los Angeles. We had made several drops before the incident occurred with no issues whatsoever. We flew to Verdugo Helispot and took on fuel and water for our next drop. We were assigned a water drop to protect a home that was being threatened by fire. Lance flew to the area and made a right hand high recon orbit of the home, terrain, and surrounding obstacles. Large high tension lines were to the South of the home and small telephone poles were to the North with ascending terrain from South to North. The area was smoky but still visible. We had made several drops in the general area and discussed the mentioned obstacles, wind, and smoke.

The high recon was blended into a right hand descending turn to line up on the drop. As we were lining up for the drop, while still descending and turning to the home I felt as though we yawed right and descended aggressively. Just at that moment Lance said something was wrong and immediately dropped the water. Even though the water was dropped early the aircraft's descent rate and right yaw increased. I looked to my right and saw Lance struggle to control the aircraft. He was doing his best to maintain what control he could so I

PILOT 1 CHERIF AMIN
LAFD AIR OPERATIONS
A PLATOON

did not touch the controls. As we continued on this path of descent towards our seven o'clock I called out trees on our left 3 times. I looked again to see Lance manipulating the controls as best he could so I refrained from touching the controls. As we approached the trees I felt as though aircraft control was being regained but not enough to avoid hitting the trees. I watched as the main rotor struck the top 5-10 feet of a eucalyptus tree. There was a pine tree about 60-70 feet behind that tree with a house in between. Our tail boom struck the pine tree and our yaw and descent suddenly stopped and we began forward flight. The aircraft was making what sounded like a one to two per second "whop" sound that was extremely loud. This sound was not accompanied by much vibration in the airframe, if any at all. We departed in a left climbing turn and looked for a safe landing area. Lance made a mayday call and stated our situation. As we climbed up I thought a fire road that was nearby might be a good spot to set down. At that point I stated we should land now. As soon as I said that it became obvious that was not a large enough or safe enough spot to land at. Helco recommended a football field a mile away that was just off our nose as we climbed up to see over the ridge. We performed a normal landing at the football field shut down and inspected the aircraft.