

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: San Isidro State: TX

ZIP: 78588 Country: USA

Latitude: 26.595961 Longitude: 98.625022

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

Accident/Incident Date/Time

Date: 10/23/2014 Local Time: 1400
mm/dd/yyyy

Time Zone: CST

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

AIRCRAFT INFORMATION

Registration Number: 72595

Manufacturer: Bell Helicopter

Model: UH1-HII

Serial Number: 73-21769

Year of Manufacture: 1973

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

☐ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 10,500 lbs

Weight at Time of Accident/Incident: 9,500 lbs

Number of Seats: 3 Flight Crew Seats: 2

Cabin Crew Seats: 1 Passenger Seats: _____

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
- ☐ Tailwheel
- ☐ High Skid
- ☒ Skid
- ☐ Ski
- ☐ Ski/Wheel

☐ Other Launch/Recovery System

☐ None

☐ 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	<u>Lycoming</u>	<u>T53-L13-703</u>	<u>LE-14294Z</u>		<u>1438</u>	<u>5853</u>	<u>5616</u>	
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

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

Date Last Inspection: 6/27/2014
mm/dd/yyyy

Airframe Total Time: 5736 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: _____

Propeller 1

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

Manufacturer: _____

Model: _____

Propeller 2

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

Manufacturer: _____

Model: _____

ELT Installed: ☒ Yes ☐ No

If Yes:

ELT Manufacturer: Artex

Model or Part No.: C406-N HM

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: Department of Homeland SecurityCity: WashingtonFractional Ownership Aircraft: ☐ Yes ☒ NoState: D.C ZIP: 20229Country: USA**Operator of Aircraft**☒ Same As Registered Owner☒ Same Address as Registered Owner

Name: _____

City: _____

Doing Business As: _____

State: _____ ZIP: _____

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

Country: _____

Operating Certificates Held

(Check all that apply)

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

Regulation Flight Conducted Under

- ☐ FAR 91 ☐ FAR 129 ☐ FAR 415
☐ FAR 103 ☐ FAR 133 ☐ FAR 431
☐ FAR 121 ☐ FAR 135 ☐ FAR 435
☐ FAR 125 ☐ FAR 137 ☐ FAR 437
- ☐ FAR 91 Special Flight
☐ Non-US, Commercial
☐ Non-US, Non-commercial
- ☒ Public Aircraft (Select one)
☐ Armed Forces
☒ Federal
☐ State
☐ Local
☐ Unknown

Revenue Operation for FAR 121, 125, 129, 135

(Select one for each group)

- ☐ Scheduled or Commuter ☐ Domestic
☐ Non-Scheduled or Air Taxi ☐ International
- ☐ Passenger
☐ Cargo
☐ Mail Contract Only

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

(Select one)

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

Revenue Sightseeing Flight☐ Yes ☒ No**Air Medical Flight**☐ Yes ☒ No**AIRPORT INFORMATION (Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)**

Airport Name: _____

Distance From Airport Center: _____ sm

Airport Identifier: _____

Direction From Airport: _____ degrees true

Proximity to Airport: ☐ Off Airport/Airstrip ☐ On Airport/Airstrip ☐ N/A

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 ☐ 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: Stuart City of Residence: Edinburg
 Middle Initial: G State: TX ZIP: 78539
 Last Name: Goodrich Country: USA
 Age at time of Accident/Incident: 44 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

12/02/2013
 mm/dd/yyyy

Medical Certificate Limitations

Must wear corrective lenses

Medical Certificate Special Issuance

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

08/27/2014
 mm/dd/yyyy

Flight Review Aircraft

Make: AS-350 B2

Model: Eurocopter

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
☐ Airplane Single-Engine
☐ Airplane Multi-Engine
☐ Gyroplane
☐ Powered Lift
☐ Instrument Airplane
☐ Instrument Helicopter
☐ Helicopter
☐ Glider
☐ 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	9,950	406	1,951	177	1,681	65	148	7,990		
Pilot in Command (PIC)	9,882	397	1,905	165	1,675	65	148	7,875		
Time as Instructor	950	0	355	595	80		3	355		
This Make/Model					360		8			
Last 90 Days	12	9	0	0	1		0	12		
Last 30 Days	8	7	0	0	1		0	8		
Last 24 Hours	1	0		0			0	1		

“Flight Crewmember 2” Responsibilities at the Time of Accident/Incident

“Flight Crewmember 2” was pilot flying ☐ Yes ☒ No

First Name: Todd City of Residence: Corpus Christi
Middle Initial: Jon State: TX ZIP: 78418
Last Name: Carlson Country: USA
Age at time of Accident/Incident: 51 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) <i>(Check all that apply)</i> ☐ None ☐ Flight Instructor ☒ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer						
Principal Occupation ☒ Pilot ☐ Other ☐ Unknown	Medical Certificate ☐ None ☐ Class 3 ☐ Class 1 ☐ Driver's License (Sport Pilot only) ☒ Class 2 ☐ Unknown		Medical Certificate Validity ☐ Without limitations/waivers ☐ Unknown ☒ With limitations/waivers ☐ N/A ☐ Special Issuance		Date of Last Medical <u>04/16/2014</u> <i>mm/dd/yyyy</i>	

Must wear corrective lenses for distant vision

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: <u>09/12/20414</u> <i>mm/dd/yyyy</i>	Flight Review Aircraft Make: <u>Bell Helicopter</u> Model: <u>UH1-H</u>
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Airplane Rating(s) (Check all that apply)	Other Aircraft Rating(s) (Check all that apply)	Instrument Rating(s) (Check all that apply)	Instructor Rating(s) (Check all that apply)
☐ None ☒ Single-Engine Land ☐ Single-Engine Sea ☒ Multiengine Land ☐ Multiengine Sea	☐ None ☐ Airship ☐ Balloon ☐ Glider ☐ Gyroplane ☒ Helicopter ☐ Powered Lift	☐ None ☒ Airplane ☐ Helicopter ☐ Powered Lift	☐ None ☐ Airplane Single-Engine ☐ Airplane Multi-Engine ☐ Gyroplane ☐ Powered Lift ☐ Instrument Airplane ☐ Instrument Helicopter ☐ Helicopter ☐ Glider ☐ Sport

Type Ratings	Student Endorsements <i>(Include dates)</i>

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	10,500	1,851	300	10,200	1,600	950	300	1,851		
Pilot in Command (PIC)	10,000	1,800	300	10,000	1,600					
Time as Instructor										
This Make/Model										
Last 90 Days	38	38	38				1	38		
Last 30 Days	14	14	14					14		
Last 24 Hours	3	3	3					3		

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)									
Crew Name and Address					Seat Occupied		Injury		
First Name: <u>Scott</u> City of Residence: <u>Mission</u> Middle Initial: <u>R</u> State: <u>TX</u> ZIP: <u>78572</u> Last Name: <u>Solis</u> Country: <u>USA</u>					☐ 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: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown	
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown	
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown	
First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other			☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown	☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	☐ Under 5 years If Under 5, ☐ Child Restraint ☐ Lap-Held ☐ Unknown	

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KBKS</u> City: <u>Falfurrias</u> State: <u>TX</u> Country: <u>USA</u>	Time of Departure Time: <u>1345</u> Time Zone: <u>CST</u>	Destination Airport ID: <u>KMFE</u> City: <u>McAllen</u> State: <u>TX</u> Country: <u>USA</u>	Type Flight Plan Filed ☒ None ☐ VFR/IFR ☐ Company VFR ☐ IFR ☐ Military VFR ☐ Unknown ☐ VFR Activated? ☐ Yes ☐ No ☐ Unknown
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Type of ATC Clearance/Service (Check all that apply)				
☒ None	☐ Special VFR	☐ Special IFR	☐ VFR Flight Following	☐ Cruise
☐ VFR	☐ IFR	☐ VFR On Top	☐ Traffic Advisory	☐ Unknown / NA

Airspace where the accident/incident occurred (Check all that apply)			Altitude of In-Flight Occurrence: _____ ft msl
☐ 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	

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply)	Weather Observation Facility
☐ National Weather Service ☐ Flight Service Station ☐ TV/Radio ☐ Automated Report ☐ Commercial Weather Service (DUATS) ☐ On-Board Weather	Facility ID: <u>KEBG</u> Observation Time: <u>1435</u> Time Zone: <u>cst</u> Distance from Accident Site: <u>28.3</u> nm Direction from Accident Site: <u>100</u> degrees true
☐ Company ☐ Military ☒ Internet ☐ None ☐ Unknown	

Basic Conditions ☒ VMC ☐ IMC ☐ Unknown	Light Condition ☐ Dawn ☐ Dusk ☐ Dark Night ☐ Unknown ☒ Day ☐ Night ☐ Bright Night
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Sky/Lowest Cloud Condition ☒ Clear ☐ Thin Broken ☐ Few ☐ Thin Overcast ☐ Partial Obscuration ☐ Unknown ☐ Scattered	Ceiling ☒ None (Clear) ☐ Obscured ☐ Broken ☐ Indefinite ☐ Overcast ☐ Unknown	Temperature: <u>29.2</u> (C) or <u>84.6</u> (F) Dew Point: <u>17.7</u> (C) or <u>64</u> (F) Altimeter Setting: _____ in. Hg or <u>3006</u> MB
Lowest Cloud Condition Height _____ ft agl	Ceiling Height _____ ft agl	

Wind Direction ☐ Variable -or- Direction: <u>360</u> degrees true	Wind Speed ☐ Calm ☒ Light and Variable -or- Speed: <u>7.0</u> kts	Wind Gusts ☒ Not Gusting -or- Speed: _____ kts	Visibility <u>10</u> miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ ft
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Intensity of Precipitation ☐ Light ☐ Moderate ☐ Heavy ☐ N/A ☐ Unknown	Type of Precipitation (Check all that apply)	Restriction to Visibility (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	☒ None ☐ Fog ☐ Blowing Dust ☐ Ground Fog ☐ Blowing Sand ☐ Haze ☐ Blowing Snow ☐ Ice Fog ☐ Blowing Spray ☐ Smoke ☐ Dust ☐ Unknown

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

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)*

Left side sliding door sustained substantial damage when it departed the aircraft in-flight and struck one Main Rotor Blade. The door was severed into two pieces and exhibited tearing (ductile shear fracturing) at the fracture point. The sheet metal and structural components exhibited severe curling in an upward direction both halves at the points of the tearing. The three forward door roller assemblies are intact and the rear roller is missing. The intact rollers did not exhibit abnormal signs or wear. The bottom J angle door guide attached to the door structure exhibited a stress fracturing from the forward end to five inches aft. The angle exhibited a ductile shear fracture at the end of the stress fracture. The door hold open securing retaining angle (were the airframe securing pin passes through) is intact and remained at 90 degrees and did not exhibit signs of deflection.

Aircraft damage cont'd below

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.

On 10/23/2014 after a refueling stop at Brooks County airport (KBKS) near Falfurrias, TX an Office of Air and Marine (OAM) UH-1H with a crew of 3 experienced a departure of the left sliding cabin door from the aircraft during flight. The door departed the aircraft at approx. 1430 local time in the vicinity of San Isidro, TX.

The flight originated at the McAllen Airport (KMFE) in McAllen, TX. The aircrew performed a thorough pre-flight of the aircraft in the hangar at the KMFE airport and reported no discrepancies with the aircraft. The accident aircrew was assigned a law enforcement patrol in support of the US Border Patrol. The aircraft departed KMFE at 11:00 local time. The aircraft was being operated with the pilot and co-pilot doors removed, the main cabin quarter doors removed and the main cabin sliding doors secured fully aft in the open position.

The crew completed a 2.3 hour patrol and landed at KBKS to refuel the aircraft and take a short lunch break. Weather at KBKS was 74F with clear skies, 10sm visibility and winds 020 at 5kts. The crew intended to refuel and continue on their assigned patrol in the direction of Rio Grande City, TX. The destination for the aircrew was KMFE.

Upon completing refueling at KBKS the crew performed a pre-departure inspection of their respective sides of the aircraft. The Tactical Team Member (TTM) and Second in Command (SIC), who were on the left side of the aircraft, discovered that the door retaining pin was missing from the Door Retaining Assembly. The TTM discussed the missing pin with the SIC. The SIC assured the TTM that the door pin was not required. The Pilot in Command (PIC) and the TTM have stated that the SIC did not notify the PIC of the missing door pin. The SIC states that he did notify the PIC but he was uncertain the PIC adequately understood that the pin was missing from the door retention assembly.

The aircrew departed KBKS at approx 1400 to continue their assigned patrol duties. After .3 hours while in level cruise flight at approx. 105 KIAS, the crew heard a loud bang and felt a momentary but noticeable upset to the flight path of the aircraft. The crew stated that they did not experience aircraft controllability issues or any indication of abnormality in the flight controls after the initial event. The flight crew requested that the TTM, who was sitting in the cabin, check to see if something fell over. While the TTM was investigating the cause of the upset the crew elected to execute a precautionary landing to an open field in the vicinity of San Isidro, TX.

After completing an uneventful precautionary landing and post flight inspection the flight crew identified that the left sliding door was no longer attached to the airframe. The crew further noticed that the (yellow) main rotor blade had sustained impact damage. At this time, the PIC stated overhearing the TTM ask the SIC if he thought that the cause of the missing door could be related to the lack of the retaining pin. The PIC noted it was at this time he first became aware that the left sliding door was not pinned during the entire flight from KBKS. The cargo door was subsequently located at position N26.60806 W98.61528 in two sections.

Evidence from the investigation supports the door retaining pin (which secures the sliding cabin door in the aft position) was not inserted into the door retaining assembly - as required by the aircraft manufacturer. The lack of the door retaining pin allowed the door to slide forward during flight - unnoticed by the flight crew. Aerodynamic forces separated the door from the sliding track starting at the forward bottom section of the door panel. The door slid rearward and the bottom of the door continued to move away from the fuselage as the upper portion of the door encountered the aft door stop. The door pivoted on the upper aft stop and rotated outward and upward. The door completely separated from the airframe and struck the bottom of the (yellow) main rotor blade. The force of the impact fragmented the door in two large sections while causing significant damage to the bottom of the (yellow) main rotor blade. The (yellow) main rotor blade sustained puncture and scarring on the lower blade surface. Debris from the initial door impact struck the tail rotor blades causing surface denting and pitting damage to the (white) tail rotor blade and a puncture in the (red) tail rotor blade.

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

Operator/Owner Safety Recommendation

1. Crew receives additional training in regards to UH-1H door operation and securing IAW manufacturer's SOP.
2. Information about this accident is shared within the parent organization for awareness.
3. Agency emphasis on proper and accepted Crew Resource Management techniques as related to factors in this accident.
4. Detailed recommendations to be made once the investigation by the parent organization is completed.

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)

277 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**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.

Aircraft damage cont'd;

The aircraft fuselage door roller and guide track structures did not exhibit abnormal signs of wear. The hold door open safety pin was missing from its retaining lanyard. The fuselage door hold open structural guide pin that mates with the 90 degree door angle is intact and did not exhibit any deformation. The fuselage skin contains an impact dent five inches in length above the door plane and three inches forward of the fuselage tail boom mating seam. The top door open securing contoured retaining stop is deformed and deflected outboard from its original configuration. The bottom door open securing contoured retaining stop is intact with no evidence of deflection. One rotor blade sustained substantial damage to the bottom surface as described.

1. STA-212=3"x1"

2. STA-222=3 punctures, 2 3/4 "x 1/2 ", 3/4 x 1/4", 1/8" x 1/16"

3. STA-233-235=2 punctures both 1/8"x1/16"

4. STA-244=12"x4"

5. STA-253=1 1/2"x 1/4"

6. STA-270=4"x1"

7. The damaged area of the blade bottom surface contains several impact dents and surface marks from SAT 203-288.

8. The leading edge of the damaged blade appears to be intact and does not exhibit impact damage.

9. The top surface of the damaged blade does not exhibit impact damage.

10. The damaged blade to hub mount pin was difficult/binding at blade removal.

The opposite (opposing) blade appears not to have sustained any damage.

The Red (marked) tail rotor blade inboard surface a through and through skin puncture 5 3/8th "from the blade end and 7 1/8th "from the leading edge. The outboard side surface contains a skin protrusion 1/8" from the skin directly opposite to opposing side skin puncture. After further inspection it was discovered that the skin puncture was caused by a structural fastener believed to have originated from the door impacting the Main rotor blade. Remnants of the fastener remains lodged at interior of the outboard skin protrusion. The fastener type cannot be determined at this time. The White (marked) tail rotor blade sustained impact dent damage at the inboard surface 10 1/16th " from the blade leading edge and 10 1/2" from the blade end.

Additional crewmember (TTM) note:

TTM provisioned and wearing full body harness with single attachment point to aircraft).

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE**Date of this Report**10/31/2014*mm/dd/yyyy***Name of Pilot/Operator:** _____**Signature:** _____

-- or -- ☐ Check here to electronically sign this document

If a Person Other than Pilot/Operator is Filing Report**Name:** Thomas L Mabrey**Title:** CBP Accident Investigator**Signature:** _____

-- or -- ☒ Check here to electronically sign this document

FOR NTSB USE ONLY**NTSB Accident/Incident No.**CEN15TA035**Reviewed by NTSB Regional Office**Central Region**Name of Investigator**T. Sorensen**Date Report Received**31 October 2014