

**NATIONAL TRANSPORTATION SAFETY BOARD  
PILOT/OPERATOR AIRCRAFT ACCIDENT REPORT**  
This Form To Be Used For Reporting Civil Aircraft Accidents  
Involving Commercial and General Aviation Aircraft

<b>Location</b>				
Nearest City/Place, State, Zip Code <b>EAST TROY, WE 53120</b>	Date of Accident <b>1/5/2002</b>	Local Time (24 HOUR CLOCK) <b>0900</b>	Zone <b>CST</b>	Elevation At Accident Site Feet MSL <b>260</b> Feet MSL

If The Accident Occurred On Approach, Takeoff Or Within 3 Miles Of An Airport, Complete The Following Information

**Proximity To Airport:**

1. <input checked="" type="checkbox"/> On Airport	3. <input type="checkbox"/> Within 1/2 Mile	5. <input type="checkbox"/> Within 1 Mile	7. <input type="checkbox"/> Within 3 Miles
2. <input type="checkbox"/> Within 1/4 Mile	4. <input type="checkbox"/> Within 3/4 Mile	6. <input type="checkbox"/> Within 2 Miles	8. <input type="checkbox"/> Beyond 3 Miles

Airport Name <b>EAST TROY MUNICIPAL</b>	Airport Ident <b>57C</b>	Runway/Landing Surface And Conditions: 1. Direction: _____ 3. Width: _____ 2. Length: _____ 4. Surface: <b>ASPHALT</b> 5. Condition: <b>DRY</b> <i>PARALLEL TO RUNWAY 08/26</i>
--	-----------------------------	--

**Phase Of Operation:**

1. <input type="checkbox"/> Standing	3. <input type="checkbox"/> Takeoff	5. <input type="checkbox"/> Cruise	7. <input type="checkbox"/> Approach	9. <input checked="" type="checkbox"/> Hover/Maneuver
2. <input type="checkbox"/> Taxi	4. <input type="checkbox"/> Climb	6. <input type="checkbox"/> Descent	8. <input type="checkbox"/> Landing	10. <input type="checkbox"/> Altitude Of In-Flight Occurrence _____ Feet MSL

<b>Aircraft Information</b>	Registration Mark <b>N215WW</b>	Aircraft Manufacturer <b>ROBINSON HELICOPTER</b>	Aircraft Type/Model <b>R22 BETA</b>	Serial Number <b>0930</b>	Cert Max Gross WT <b>1370</b>
-----------------------------	------------------------------------	---	--	------------------------------	----------------------------------

<b>Type Of Aircraft</b>	<b>Type Of Airworthiness Certificate</b>	<b>Amateur Built</b>
1. <input type="checkbox"/> Airplane 2. <input checked="" type="checkbox"/> Helicopter 3. <input type="checkbox"/> Glider 4. <input type="checkbox"/> Balloon	5. <input type="checkbox"/> Blimp/Dirigible 6. <input type="checkbox"/> Ultralight 7. <input type="checkbox"/> Gyroplane 8. Specify _____	1. <input type="checkbox"/> Yes 2. <input checked="" type="checkbox"/> No
	1. <input checked="" type="checkbox"/> Normal 2. <input type="checkbox"/> Utility 3. <input type="checkbox"/> Acrobatic 4. <input type="checkbox"/> Transport	
	5. <input type="checkbox"/> Restricted 6. <input type="checkbox"/> Limited 7. <input type="checkbox"/> Experimental 8. Specify _____	

<b>Landing Gear</b>	<b>No. Of Seats Flight/Cabin</b>
1. <input type="checkbox"/> Tricycle—Fixed 2. <input type="checkbox"/> Tricycle—Retractable 3. <input type="checkbox"/> Tailwheel—Fixed	Crew <b>2</b> Pass _____
4. <input type="checkbox"/> Tailwheel—Retractable 5. <input type="checkbox"/> Tailwheel—Retractable Mains 6. <input type="checkbox"/> Amphibian	
7. <input checked="" type="checkbox"/> Skid 8. <input type="checkbox"/> Ski/Wheel 9. Specify _____	

<b>Stall Warning System Installed</b>	<b>IFR Equipped</b>	<b>Engine Type</b>
1. <input type="checkbox"/> Yes 2. <input checked="" type="checkbox"/> No	1. <input type="checkbox"/> Yes 2. <input checked="" type="checkbox"/> No	1. <input checked="" type="checkbox"/> Reciprocating—Carburetor 2. <input type="checkbox"/> Reciprocating—Fuel Injected 3. <input type="checkbox"/> Turbo Prop 4. <input type="checkbox"/> Turbo Jet 5. <input type="checkbox"/> Turbo Fan 6. <input type="checkbox"/> Turbo Shaft

<b>Engine Manufacturer</b> <b>TEXTRON LYCOMING</b>	<b>Engine Model/Series</b> <b>O-220-B2C</b>	<b>Engine Rated Power</b> 1. <b>160</b> Horsepower 2. _____ Lbs. Thrust	<b>Type Of Fire Extinguishing System Used</b> 1. <input checked="" type="checkbox"/> None 2. Specify _____
---	--	---	--

Engine(s)	Date of Mfg.	Mfg. Serial No.	Total Time	Time Since Inspection	Time Since Overhaul
Engine No. 1	11/12/92	L-18099-39A	<del>1530.0</del> Hours	9.6 Hours	1570.7 Hours
Engine No. 2			2390.9 Hours		<del>1530.0</del> Hours
Engine No. 3					
Engine No. 4					

<b>Type Of Maintenance Program</b>	<b>Type Of Last Inspection</b>	<b>Date Last Inspection Performed</b>
1. <input type="checkbox"/> Annual 2. <input type="checkbox"/> Manufacturer's Inspection Program 3. <input type="checkbox"/> Other Approved Inspection Program (AAIP) 4. <input type="checkbox"/> Continuous Airworthiness 5. Specify _____	1. <input type="checkbox"/> Annual 2. <input checked="" type="checkbox"/> 100 Hour 3. <input type="checkbox"/> AAIP 4. <input type="checkbox"/> Continuous Airworthiness	<b>1/3/2002</b> (M/D/Y) Time Since Last Inspection <b>9.6</b> Hours Airframe Total Time <b>7510.2</b> Hours

<b>Emergency Locator Transmitter (ELT)</b>	<b>ELT Manufacturer</b>	<b>Model/Series</b>	<b>Serial Number</b>	<b>Battery Date (M/D/Y)</b>
<b>NONE</b>				
Switch 1. <input type="checkbox"/> On 2. <input type="checkbox"/> Off 3. <input type="checkbox"/> Armed	<b>Operated</b> 1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Aided In Accident Location</b> 1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No		

<b>Registered Aircraft Owner</b> <b>WW HELICOPTERS LLC</b>	<b>Address</b> <b>2085 HWY L HGR I-1 EAST TROY, WE 53120</b>
---	---

<b>Operator Of Aircraft</b>	<b>Address</b>
1. <input checked="" type="checkbox"/> Same As Registered Owner 2. Name _____ 3. DBS: _____	1. <input checked="" type="checkbox"/> Same As Registered Owner 2. _____

Owner/Operator Information (cont.)										
Operator (Certificate Number) <b>UNKNOWN</b>			Operator Designator (4 Letter Designator) <b>UNKNOWN</b>							
Purpose Of Flight And Type Of Operation										
Regulation Flight Conductor Under					Operator Authority			FAR 121, 125, 127, 129, 135		
1. <input checked="" type="checkbox"/> FAR 91 (only)			4. <input type="checkbox"/> FAR 121		7. <input type="checkbox"/> FAR 133		FAR 121 Revenue Operations			
2. <input type="checkbox"/> FAR 91D			5. <input type="checkbox"/> FAR 125		8. <input type="checkbox"/> FAR 135		1. <input type="checkbox"/> Scheduled			
3. <input type="checkbox"/> FAR 103			6. <input type="checkbox"/> FAR 129		9. <input type="checkbox"/> FAR 137		2. <input type="checkbox"/> Non Scheduled			
Purpose Of Flight					FAR 133			3. <input type="checkbox"/> Domestic		
1. <input type="checkbox"/> Personal			6. <input type="checkbox"/> Aerial Observation		1. <input type="checkbox"/> Domestic			4. <input type="checkbox"/> International		
2. <input type="checkbox"/> Business			7. <input type="checkbox"/> Other Work Use		2. <input type="checkbox"/> Flag			5. <input type="checkbox"/> Passenger		
3. <input checked="" type="checkbox"/> Instructional			8. <input type="checkbox"/> Public Use		3. <input type="checkbox"/> Supplemental			6. <input type="checkbox"/> Cargo		
4. <input type="checkbox"/> Executive/Corporate			9. <input type="checkbox"/> Ferry		4. <input type="checkbox"/> On Demand			7. Specify _____		
5. <input type="checkbox"/> Aerial Application			10. <input type="checkbox"/> Positioning		5. <input type="checkbox"/> Commuter					
Pilot Information										
Pilot Name <b>KENT W RICE</b>			Pilot Certificate No. [REDACTED]			Address <b>PEWABEE, WI 53012</b>		Nationality <b>US</b>		
Certificate(s)										
1. <input type="checkbox"/> Student			3. <input checked="" type="checkbox"/> Commercial		5. <input checked="" type="checkbox"/> Flight Instructor		7. <input type="checkbox"/> Military		9. <input type="checkbox"/> None	
2. <input type="checkbox"/> Private			4. <input type="checkbox"/> Airline Transport		6. <input type="checkbox"/> Flight Engineer		8. <input type="checkbox"/> Foreign		10. Specify _____	
Rating(s)					Instrument Rating(s)		Instructor Rating(s)			
1. <input type="checkbox"/> None			6. <input checked="" type="checkbox"/> Helicopter		1. <input checked="" type="checkbox"/> None		1. <input type="checkbox"/> None	6. <input type="checkbox"/> Instrument Airplane		
2. <input checked="" type="checkbox"/> Single Engine Land			7. <input type="checkbox"/> Glider		2. <input type="checkbox"/> Airplane		2. <input type="checkbox"/> Airplane S.E.	7. <input type="checkbox"/> Instrument Helicopter		
3. <input type="checkbox"/> Single Engine Sea			8. <input type="checkbox"/> Free Balloon		3. <input type="checkbox"/> Helicopter		3. <input type="checkbox"/> Airplane M.E.	8. <input type="checkbox"/> Ground Instructor		
4. <input type="checkbox"/> Multiengine Land			9. <input type="checkbox"/> Airship				4. <input checked="" type="checkbox"/> Helicopter	9. Specify _____		
5. <input type="checkbox"/> Multiengine Sea			10. <input type="checkbox"/> Gyroplane				5. <input type="checkbox"/> Glider			
Type Ratings/Student Endorsements					Date Of Biennial Flight Review Or Equivalent (M/D/Y) <b>12/16/2001</b>		BFR Aircraft			
							1. Make <b>ROBINSON HELICOPTER</b>			
							2. Model <b>R22 BETA</b>			
Medical Certificate			Date Of Last Medical (M/D/Y) <b>8/22/2001</b>		Limitations <b>NONE</b>			Date Of Birth (M/D/Y) [REDACTED] / 1948		
1. <input type="checkbox"/> None			3. <input checked="" type="checkbox"/> Class 2		Waivers					
2. <input type="checkbox"/> Class 1			4. <input type="checkbox"/> Class 3							
Degree Of Injury		Seat Occupied		Person At Controls At Time Of Accident				Seat Belt Available		
1. <input checked="" type="checkbox"/> None		1. <input checked="" type="checkbox"/> Left		1. <input type="checkbox"/> Pilot In Command				1. <input checked="" type="checkbox"/> Yes		
2. <input type="checkbox"/> Minor		2. <input type="checkbox"/> Right		3. <input checked="" type="checkbox"/> Both Pilots				2. <input type="checkbox"/> No		
3. <input type="checkbox"/> Serious		3. <input type="checkbox"/> Center		5. <input type="checkbox"/> No One						
4. <input type="checkbox"/> Fatal		4. <input type="checkbox"/> Front		2. <input type="checkbox"/> Second Pilot						
		5. <input type="checkbox"/> Rear		4. <input type="checkbox"/> Non-Pilot						
Seat Belt Used		Shoulder Harness Available		Shoulder Harness Used		Source Of Pilot Flight Time Information				
1. <input checked="" type="checkbox"/> Yes		1. <input checked="" type="checkbox"/> Yes		1. <input checked="" type="checkbox"/> Yes		1. <input checked="" type="checkbox"/> Pilot Logbook				
2. <input type="checkbox"/> No		2. <input type="checkbox"/> No		2. <input type="checkbox"/> No		2. <input type="checkbox"/> Operators Estimate				
						3. <input type="checkbox"/> FAA Records				
						4. <input type="checkbox"/> Company				
						5. Specify _____				
Flight Time										
	All A/C	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument Actual	Instrument Simulated	Rotorcraft	Glider	Lighter Than Air
Total Time	439.9	219.0	168.5		25.4	10.1		271.4		
Pilot In Command (PIC)	308.7	186.2	88.3		14.4			220.4		
Instructor	15.5	15.5						15.5		
This Make/Model										
Last 90 Days	42.9	21.0	2.0					NO RECORD		
Last 30 Days	24.1	18.5						24.1		
Last 24 Hours	.8	.8						.8		
Second Pilot Information										
Second Pilot Responsibilities At The Time Of Accident										
1. <input type="checkbox"/> Co-Pilot										
2. <input checked="" type="checkbox"/> Dual Student										
3. <input type="checkbox"/> Safety Pilot										
4. <input type="checkbox"/> Check Pilot										
5. <input type="checkbox"/> None (Pilot-Rated Passenger)										
Pilot Name <b>EDWARD J. FARKAS</b>			Pilot Certificate No. [REDACTED]			Address <b>WHITEEGL BAY, WI 53211</b>		Nationality <b>US</b>		
Certificate(s)										
1. <input type="checkbox"/> Student			3. <input type="checkbox"/> Commercial		5. <input type="checkbox"/> Flight Instructor		7. <input type="checkbox"/> Military		9. None _____	
2. <input checked="" type="checkbox"/> Private			4. <input type="checkbox"/> Airline Transport		6. <input type="checkbox"/> Flight Engineer		8. <input type="checkbox"/> Foreign		10. Specify _____	

**SECOND PILOT INFORMATION (cont.)**

<b>Rating(s)</b> 1. <input type="checkbox"/> None 2. <input checked="" type="checkbox"/> Single Engine Land 3. <input checked="" type="checkbox"/> Single Engine Sea 4. <input type="checkbox"/> Multiengine Land 5. <input type="checkbox"/> Multiengine Sea	6. <input checked="" type="checkbox"/> Helicopter 7. <input checked="" type="checkbox"/> Glider 8. <input type="checkbox"/> Free Balloon 9. <input type="checkbox"/> Airship 10. <input type="checkbox"/> Gyroplane	<b>Instrument Rating(s)</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> Airplane 3. <input type="checkbox"/> Helicopter	<b>Instructor Rating(s)</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> Airplane S.E. 3. <input type="checkbox"/> Airplane M.E. 4. <input checked="" type="checkbox"/> Helicopter 5. <input type="checkbox"/> Glider	6. <input type="checkbox"/> Instrument Airplane 7. <input type="checkbox"/> Instrument Helicopter 8. <input type="checkbox"/> Ground Instructor 9. Specify _____
--	---	--	---	---

<b>Type Ratings/Student Endorsements</b>	<b>Date Of Biennial Flight Review Or Equivalent (M/D/Y)</b> 10/13/2000	<b>BFR Aircraft</b> 1. Make <u>AMERICAN CHAMPION</u> 2. Model <u>SECARLALON</u>
--	---	---

<b>Medical Certificate</b> 1. <input type="checkbox"/> None 2. <input type="checkbox"/> Class 1 3. <input checked="" type="checkbox"/> Class 2 4. <input checked="" type="checkbox"/> Class 3	<b>Date Of Last Medical (M/D/Y)</b> 12/21/2001	<b>Limitations</b> <u>CORRECTIVE LENSES</u> <b>Waivers</b> <u>REFRACTIVE COLOR VISION</u> <u>E 20 E 1 @ 135</u>	<b>Date Of Birth</b> [REDACTED] / 1954
---	---	---	---

<b>Degree Of Injury</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> Minor 3. <input type="checkbox"/> Serious 4. <input type="checkbox"/> Fatal	<b>Seat Occupied</b> 1. <input type="checkbox"/> Left 2. <input checked="" type="checkbox"/> Right 3. <input type="checkbox"/> Center 4. <input type="checkbox"/> Front 5. <input type="checkbox"/> Rear	<b>Seat Belt Available</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No
---	---	--

<b>Seat Belt Used</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Shoulder Harness Available</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Shoulder Harness Used</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Source Of Pilot Flight Time Information</b> 1. <input checked="" type="checkbox"/> Pilot Logbook 2. <input type="checkbox"/> Operators Estimate 3. <input type="checkbox"/> FAA Records 4. <input type="checkbox"/> Company 5. Specify _____
---	---	--	--

Flight Time	All A/C	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	339.2	23.4	266.8		8.2		2.6	22.4	59.0	
Pilot In Command (PIC)	234.6	.5	196.8					1.5	42.3	
Instructor										
This Make/Model										
Last 90 Days	7.0	7.0						7.0		
Last 30 Days	4.9	4.9						4.9		
Last 24 Hours	.8	.8						.8		

Name	Seat	Address (City & State)	Crew	Passenger		Non-Occupant	FAA	Degree Of Injury				
				Non-Revenue	Revenue			Fatal	Serious	Minor	None	
1.												
2.												
3.												
4.												
5.												
6.												

<b>Last Departure Point</b> 1. Airport ID <u>57C</u> 2. City/Place <u>EAST TROY</u> 3. State <u>MI</u>	<b>Time Of Departure</b> 1. Time <u>0820</u> 2. Time Zone <u>CENTRAL STD</u>	<b>Destination</b> 1. Airport ID _____ 2. City/Place _____ 3. State _____	<b>Flight Plan Filed</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> VFR 3. <input type="checkbox"/> IFR 4. <input type="checkbox"/> VFR/IFR 5. <input type="checkbox"/> Company (VFR) 6. <input type="checkbox"/> Military (VFR)
---	--	--	---

If Weather Was Involved, State If Weather Briefing Was Obtained Or If Weather Reports Were Checked And How It Was Accomplished

<b>Fuel On Board At Last Takeoff</b> <u>12</u> Gallons or _____ Pounds	<b>Fuel Type</b> 1. <input type="checkbox"/> 80/87 2. <input checked="" type="checkbox"/> 100 Low Lead 3. <input type="checkbox"/> 100/130 4. <input type="checkbox"/> 115/145 5. <input type="checkbox"/> Jet A 6. <input type="checkbox"/> Automotive 7. Specify _____
--	---

Other Services, If Any, Prior To Departure

<b>Source Of Weather Information (Pilot/Operator, Weather Observation)</b> Pilot	<b>Light Condition</b> 1. <input type="checkbox"/> Dawn 2. <input checked="" type="checkbox"/> Daylight 3. <input type="checkbox"/> Dusk 4. <input type="checkbox"/> Bright Night 5. <input type="checkbox"/> Dark Night	<b>Visibility</b> <u>5+</u> Miles	<b>Temp (°F)</b> 30
---	---	--------------------------------------	------------------------

**Weather Information At The Accident Site (cont.)**

Dew Point <i>UNKNOWN</i> (°F)	Altimeter Setting <i>FIELD</i> "Hg <i>ELEVATION</i>	Sky/Lowest Cloud Condition 1. <input checked="" type="checkbox"/> Clear 2. <input type="checkbox"/> Scattered _____ Feet AGL 3. <input type="checkbox"/> Broken _____ Feet AGL		4. <input type="checkbox"/> Overcast _____ Feet AGL 5. <input type="checkbox"/> Partial Obscuration 6. <input type="checkbox"/> Obscured	
Wind Information 1. Direction <i>WEST</i> 2. Velocity <i>10</i> KTS 3. Gusts <i>0</i> KTS		Restriction To Visibility <i>NONE</i>	Type Precipitation <i>NONE</i>	Intensity Of Precipitation 1. <input type="checkbox"/> Light 2. <input type="checkbox"/> Moderate 3. <input type="checkbox"/> Heavy 4. Specify _____	
Turbulence (Multiple entry) 1. <input checked="" type="checkbox"/> None    2. <input type="checkbox"/> Light    3. <input type="checkbox"/> Moderate    4. <input type="checkbox"/> Severe    5. <input type="checkbox"/> Extreme    6. <input type="checkbox"/> Clear Air    7. <input type="checkbox"/> In Clouds					

**Damage To Aircraft And Other Property**

Degree Of Aircraft Damage 1. <input type="checkbox"/> None    2. <input type="checkbox"/> Minor    3. <input checked="" type="checkbox"/> Substantial    4. <input type="checkbox"/> Destroyed	Fire 1. <input type="checkbox"/> Yes    3. <input type="checkbox"/> In-Flight 2. <input checked="" type="checkbox"/> No    4. <input type="checkbox"/> On Ground
---	--

Description Of Damage To Aircraft And Other Property  
*MAIN ROYON BLADES, SKID/RO SKID CROSSLIBES, LOWER LEFT HAND FRAME, LEFT SIDE FUSelage, TAIL BOOM, UPPER MAJ-FAIRING*

**Mechanical Malfunction Failure**

1. <input type="checkbox"/> No			Total Time	
2. <input checked="" type="checkbox"/> Yes	List The Name Of The Part, Manufacturer, Part No., Serial No. And Describe The Failure <i>SKID CROSSLIBES PART NO. A241-2 NO SERIAL NO.</i>	On Part <i>1510.1</i> Hours	At Overhaul <i>N/A</i> Hours	

**Collision Accident**

If Collision Accident Occurred, Complete The Information For Other Aircraft

Registration mark	Aircraft Manufacturer	Aircraft Type/Model	Degree Of Aircraft Damage 1. <input type="checkbox"/> Destroyed    3. <input type="checkbox"/> Minor 2. <input type="checkbox"/> Substantial    4. <input type="checkbox"/> None
Registered Aircraft Owner		Address	
Pilot Name		Address	Pilot Certificate No.

**Evacuation Of Aircraft**

Assistance Received

1. <input checked="" type="checkbox"/> Outside Person(s)	3. <input type="checkbox"/> Slide	5. <input type="checkbox"/> Ladder
2. <input type="checkbox"/> Auxiliary Lighting	4. <input type="checkbox"/> Rope	6. <input type="checkbox"/> Specify _____

Method Of Exit (State Approximate Number Of Persons Using Each Of The Following)  
 1. Main Door *2*    2. Auxiliary Door \_\_\_\_\_    3. Emergency Exit \_\_\_\_\_

**Recommendation (How Could This Accident Have Been Prevented)**

Operator/Owner Safety Recommendation (Optional Entry) *I BELIEVE THAT DUE TO THE EXTENSIVE PERCENTAGE OF TIME THAT THIS AIRCRAFT WAS USED FOR STUDENT TRAINING AND THE HIGH NUMBER OF GROUND CONTACT MANEUVERS (TOUCH DOWN AUTODRATIONS, RUNNING TAKE OFFS, RUNWAY LANDINGS, HOVERING AUTODRATIONS) THAT PERHAPS A REARMAMENT FOR PERIODIC NON-DESTRUCTIVE TESTING OR A TIME-LIMITED LIFE ASSIGNED TO THE CROSSLIBES WHEN USED IN A TRAINING ENVIRONMENT MAY HAVE PREVENTED THE CROSSLIBES FAILURE THAT OCCURRED DURING THE EXECUTION OF AN FAA REQUIRED MANEUVER WITHIN THE NORMAL PTF COMPLETION STANDARDS. THIS INCIDENT MAY ALSO HAVE BEEN AVOIDED IF EITHER THE HOVERING AUTO WAS ELIMINATED FROM THE FAA PRIVATE PILOT PTF OR IF THE COMPLETION STANDARDS WERE RELAXED RESULTING IN LESS PRACTICE MANEUVERS BEING EXECUTED.*

**Additional Flight Crew Members**

For Each Additional Flight Crew Member, Exclusive Of Cabin Attendants Complete The Following Information:

Name	FAA Certificate No.	Address	Title
------	---------------------	---------	-------

Certificate(s)  
1.  Student      3.  Commercial      5.  Flight Instructor      7.  Foreign  
2.  Private      4.  Airline Transport      6.  Flight Engineer      8. Specify \_\_\_\_\_

Ratings/Endorsements	Total Flight Time	Flight Time This Accident
----------------------	-------------------	---------------------------

Name	FAA Certificate No.	Address	Title
------	---------------------	---------	-------

Certificate(s)  
1.  Student      3.  Commercial      5.  Flight Instructor      7.  Foreign  
2.  Private      4.  Airline Transport      6.  Flight Engineer      8. Specify \_\_\_\_\_

Ratings/Endorsements	Total Flight Time	Flight Time This Accident
----------------------	-------------------	---------------------------

Name	FAA Certificate No.	Address	Title
------	---------------------	---------	-------

Certificate(s)  
1.  Student      3.  Commercial      5.  Flight Instructor      7.  Foreign  
2.  Private      4.  Airline Transport      6.  Flight Engineer      8. Specify \_\_\_\_\_

Ratings/Endorsements	Total Flight Time	Flight Time This Aircraft
----------------------	-------------------	---------------------------

**Narrative History Of Flight**

Describe What Occurred In Chronological Order, The Circumstances Leading To The Accident And The Nature Of The Accident. Describe The Terrain And Include A Sketch Of Wreckage Distribution If Pertinent. Attach Extra Sheets If More Space Is Needed. State Point Of Departure, Time Of Departure, Intended Destination And Services Obtained.

I WAS CONDUCTING A FLIGHT LESSON WITH ED FARKAS AT EAST TROY AIRPORT (5DC).

WE STARTED THE LESSON AT 0820. THE WIND WAS OUT OF THE WEST AT ABOUT 10 KNOTS. WE WORKED ON NORMAL TAKEOFFS, TRAFFIC PATTERNS AND APPROACHES TO RUNWAY 26. WE THEN DID A COUPLE OF RUNNING TAKEOFFS AND RUN ON LANDINGS. WE THEN EXECUTED ABOUT 4 STRAIGHT-IN AUTOROTATIONS. ALL MANEUVERS WERE COMPLETED NORMALLY.

WE THEN HOVER TAXIED TO THE TAXIWAY PARALLEL TO RUNWAY - 2/26 TO PRACTICE HOVERING AUTOROTATIONS (POWER OFF AT HOVER). I DEMONSTRATED THREE OF THEM AND ED PERFORMED TWO. ABOUT A SECOND OR SO AFTER THE TOUCHDOWN ON ED'S 2ND HOVERING AUTO, THE LEFT SKID COLLAPSED AND THE HELICOPTER SLOWLY AND GENTLY ROLLED ONTO IT'S LEFT SIDE. THE MAIN ROTOR BLADES MADE CONTACT WITH THE GROUND AND CAME TO A STOP. WE TURNED OFF ALL ELECTRICAL SYSTEMS AND THE FUEL CUTOFF VALVE. NO ONE WAS INJURED AND ED AND I WERE ASSISTED IN EXITING THE AIRCRAFT THROUGH THE RIGHT DOOR.

ALL HOVERING AUTOS WERE PERFORMED INTO THE WIND FROM A STABILIZED HOVER OF 3-5 FEET AGL. ALL WERE TERMINATED WITH THE SKIDS CLOSE TO PARALLEL WITH THE TAXIWAY WITHOUT ANY HARD LANDINGS.

Hereby Certify That The Above Information Is Complete And Accurate To The Best Of My Knowledge

Date Of This Report 1/13/2002	Signature Of Pilot/Operator 
Signature Of Person Filing Report Other Than Pilot/Operator	
1. Signature _____	
2. Type Or Print Name _____	
3. Title _____	

NTSB Accident No. CHI02LLA001	Reviewed By NTSB Office Located At WEST CHICAGO, IL	Name Of Investigator 	Date Report Received 1/28/02
----------------------------------	--	--------------------------	---------------------------------

**NATIONAL TRANSPORTATION SAFETY BOARD  
PILOT/OPERATOR AIRCRAFT ACCIDENT REPORT**  
This Form To Be Used For Reporting Civil Aircraft Accidents  
Involving Commercial and General Aviation Aircraft

<b>Location</b>				
Nearest City/Place, State, Zip Code <i>EAST TROY, WISCONSIN 53120</i>	Date of Accident <i>01/05/2002</i>	Local Time (24 HOUR CLOCK) <i>0900</i>	Zone <i>CST</i>	Elevation At Accident Site <i>860</i> Feet MSL ____ Feet MSL

If The Accident Occurred On Approach, Takeoff Or Within 3 Miles Of An Airport, Complete The Following Information

**Proximity To Airport:**

1. <input checked="" type="checkbox"/> On Airport	3. <input type="checkbox"/> Within 1/2 Mile	5. <input type="checkbox"/> Within 1 Mile	7. <input type="checkbox"/> Within 3 Miles
2. <input type="checkbox"/> Within 1/4 Mile	4. <input type="checkbox"/> Within 3/4 Mile	6. <input type="checkbox"/> Within 2 Miles	8. <input type="checkbox"/> Beyond 3 Miles

Airport Name <i>EAST TROY MUNICIPAL AIRPORT</i>	Airport Ident <i>57C</i>	Runway/Landing Surface And Conditions: 1. Direction: _____ 3. Width: _____ 2. Length: _____ 4. Surface: _____ 5. Condition: _____
--	-----------------------------	---

**Phase Of Operation:**

1. <input type="checkbox"/> Standing	3. <input type="checkbox"/> Takeoff	5. <input type="checkbox"/> Cruise	7. <input type="checkbox"/> Approach	9. <input checked="" type="checkbox"/> Hover/Maneuver
2. <input type="checkbox"/> Taxi	4. <input type="checkbox"/> Climb	6. <input type="checkbox"/> Descent	8. <input type="checkbox"/> Landing	10. <input type="checkbox"/> Altitude Of In-Flight Occurrence _____ Feet MSL

Registration Mark <i>N215KW</i>	Aircraft Manufacturer <i>ROBINSON HELICOPTER CO.</i>	Aircraft Type/Model <i>HELICOPTER / R22 BETA</i>	Serial Number <i>0930</i>	Cert Max Gross WT <i>1370 LB</i>
------------------------------------	---	---	------------------------------	-------------------------------------

Type Of Aircraft 1. <input type="checkbox"/> Airplane 2. <input checked="" type="checkbox"/> Helicopter 3. <input type="checkbox"/> Glider 4. <input type="checkbox"/> Balloon	5. <input type="checkbox"/> Blimp/Dirigible 6. <input type="checkbox"/> Ultralight 7. <input type="checkbox"/> Gyroplane 8. Specify _____	Type Of Airworthiness Certificate 1. <input checked="" type="checkbox"/> Normal 2. <input type="checkbox"/> Utility 3. <input type="checkbox"/> Acrobatic 4. <input type="checkbox"/> Transport	5. <input type="checkbox"/> Restricted 6. <input type="checkbox"/> Limited 7. <input type="checkbox"/> Experimental 8. Specify _____	Amateur Built 1. <input type="checkbox"/> Yes 2. <input checked="" type="checkbox"/> No
--	--	---	---	---

Landing Gear 1. <input type="checkbox"/> Tricycle—Fixed 2. <input type="checkbox"/> Tricycle—Retractable 3. <input type="checkbox"/> Tailwheel—Fixed	4. <input type="checkbox"/> Tailwheel—Retractable 5. <input type="checkbox"/> Tailwheel—Retractable Mains 6. <input type="checkbox"/> Amphibian	7. <input checked="" type="checkbox"/> Skid 8. <input type="checkbox"/> Ski/Wheel 9. Specify _____	No. Of Seats Flight/Cabin _____ Crew <i>2</i> Pax <i>0</i>
---	---	--	---

Stall Warning System Installed 1. <input type="checkbox"/> Yes 2. <input checked="" type="checkbox"/> No <i>"LOW ROTOR RPM ANUNCIATOR"</i>	IFR Equipped 1. <input type="checkbox"/> Yes 2. <input checked="" type="checkbox"/> No	Engine Type 1. <input checked="" type="checkbox"/> Reciprocating—Carburetor 2. <input type="checkbox"/> Reciprocating—Fuel Injected 3. <input type="checkbox"/> Turbo Prop 4. <input type="checkbox"/> Turbo Jet 5. <input type="checkbox"/> Turbo Fan 6. <input type="checkbox"/> Turbo Shaft
---	--	--

Engine Manufacturer <i>TEXTRON-LYCOMING</i>	Engine Model/Series <i>O-320-B2C</i>	Engine Rated Power 1. <i>160</i> Horsepower 2. _____ Lbs. Thrust	Type Of Fire Extinguishing System Used 1. <input checked="" type="checkbox"/> None 2. Specify _____
--	---	--	---

Engine(s)	Date of Mfg.	Mfg. Serial No.	Total Time	Time Since Inspection	Time Since Overhaul
Engine No. 1	<i>11/12/1993</i>	<i>L-18099-394</i>	<i>3390.9</i> Hours	<i>9.6</i> Hours	<i>1510.7</i> Hours
Engine No. 2			Hours	Hours	Hours
Engine No. 3			Hours	Hours	Hours
Engine No. 4			Hours	Hours	Hours

Type Of Maintenance Program 1. <input type="checkbox"/> Annual 2. <input type="checkbox"/> Manufacturer's Inspection Program 3. <input type="checkbox"/> Other Approved Inspection Program (AAIP) 4. <input type="checkbox"/> Continuous Airworthiness 5. Specify _____	Type Of Last Inspection 1. <input type="checkbox"/> Annual 2. <input checked="" type="checkbox"/> 100 Hour 3. <input type="checkbox"/> AAIP 4. <input type="checkbox"/> Continuous Airworthiness	Date Last Inspection Performed _____ (M/D/Y) Time Since Last Inspection _____ Hours Airframe Total Time _____ Hours
--	--	---

Emergency Locator Transmitter (ELT) <i>NONE</i>	ELT Manufacturer <i>N/A</i>	Model/Series <i>N/A</i>	Serial Number <i>N/A</i>	Battery Date (M/D/Y) <i>N/A</i>
Switch 1. <input type="checkbox"/> On 2. <input type="checkbox"/> Off 3. <input type="checkbox"/> Armed <i>N/A</i>		Operated 1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No		Aided In Accident Location 1. <input type="checkbox"/> Yes 2. <input type="checkbox"/> No

Registered Aircraft Owner <i>WW HELICOPTERS, LLC</i>	Address <i>2085 HIGHWAY L, HANGAR I-1 EAST TROY, WI 53120</i>
Operator Of Aircraft 1. <input checked="" type="checkbox"/> Same As Registered Owner 2. Name _____ 3. DBS: _____	Address 1. <input checked="" type="checkbox"/> Same As Registered Owner 2. _____

**Owner/Operator Information (cont.)**

Operator (Certificate Number) LINKDOWN Operator Designator (4 Letter Designator) LINKDOWN

**Purpose Of Flight And Type Of Operation**

<b>Regulation Flight Conductor Under</b> 1. <input checked="" type="checkbox"/> FAR 91 (only)    4. <input type="checkbox"/> FAR 121    7. <input type="checkbox"/> FAR 133 2. <input type="checkbox"/> FAR 91D    5. <input type="checkbox"/> FAR 125    8. <input type="checkbox"/> FAR 135 3. <input type="checkbox"/> FAR 103    6. <input type="checkbox"/> FAR 129    9. <input type="checkbox"/> FAR 137	<b>Operator Authority</b> FAR 121 1. <input type="checkbox"/> Domestic 2. <input type="checkbox"/> Flag 3. <input type="checkbox"/> Supplemental FAR 135 <i>N/A</i> 4. <input type="checkbox"/> On Demand 5. <input type="checkbox"/> Commuter	FAR 133 6. <input type="checkbox"/> Rotorcraft External Load FAR 125 7. <input type="checkbox"/> Large Aircraft FAR 129 8. <input type="checkbox"/> Foreign	<b>FAR 121, 125, 127, 129, 135 Revenue Operations</b> 1. <input type="checkbox"/> Scheduled 2. <input type="checkbox"/> Non Scheduled 3. <input type="checkbox"/> Domestic 4. <input type="checkbox"/> International 5. <input type="checkbox"/> Passenger 6. <input type="checkbox"/> Cargo 7. Specify <u>N/A</u>
<b>Purpose Of Flight</b> 1. <input type="checkbox"/> Personal    6. <input type="checkbox"/> Aerial Observation 2. <input type="checkbox"/> Business    7. <input type="checkbox"/> Other Work Use 3. <input checked="" type="checkbox"/> Instructional    8. <input type="checkbox"/> Public Use 4. <input type="checkbox"/> Executive/Corporate    9. <input type="checkbox"/> Ferry 5. <input type="checkbox"/> Aerial Application    10. <input type="checkbox"/> Positioning			

**Pilot Information**

Pilot Name KENT RICE Pilot Certificate No. [REDACTED] Address [REDACTED] Nationality USA

Certificate(s)  
 1.  Student    3.  Commercial    5.  Flight Instructor    7.  Military    9.  None  
 2.  Private    4.  Airline Transport    6.  Flight Engineer    8.  Foreign    10. Specify \_\_\_\_\_

<b>Rating(s)</b> 1. <input type="checkbox"/> None 2. <input checked="" type="checkbox"/> Single Engine Land 3. <input type="checkbox"/> Single Engine Sea 4. <input type="checkbox"/> Multiengine Land 5. <input type="checkbox"/> Multiengine Sea	6. <input checked="" type="checkbox"/> Helicopter 7. <input type="checkbox"/> Glider 8. <input type="checkbox"/> Free Balloon 9. <input type="checkbox"/> Airship 10. <input type="checkbox"/> Gyroplane	<b>Instrument Rating(s)</b> 1. <input type="checkbox"/> None 2. <input type="checkbox"/> Airplane 3. <input checked="" type="checkbox"/> Helicopter	<b>Instructor Rating(s)</b> 1. <input type="checkbox"/> None 2. <input type="checkbox"/> Airplane S.E. 3. <input type="checkbox"/> Airplane M.E. 4. <input checked="" type="checkbox"/> Helicopter 5. <input type="checkbox"/> Glider	6. <input type="checkbox"/> Instrument Airplane 7. <input type="checkbox"/> Instrument Helicopter 8. <input type="checkbox"/> Ground Instructor 9. Specify _____
---	--	--	--	---

Type Ratings/Student Endorsements NONE Date Of Biennial Flight Review Or Equivalent (M/D/Y) 12/16/2001 BFR Aircraft  
 1. Make ROBINSON  
 2. Model R22 BETA

Medical Certificate  
 1.  None    3.  Class 2  
 2.  Class 1    4.  Class 3  
 Date Of Last Medical (M/D/Y) 08/22/2001 Limitations NONE Date Of Birth (M/D/Y) [REDACTED]/1948  
 Waivers NONE

<b>Degree Of Injury</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> Minor 3. <input type="checkbox"/> Serious 4. <input type="checkbox"/> Fatal	<b>Seat Occupied</b> 1. <input checked="" type="checkbox"/> Left    4. <input type="checkbox"/> Front 2. <input type="checkbox"/> Right    5. <input type="checkbox"/> Rear 3. <input type="checkbox"/> Center	<b>Person At Controls At Time Of Accident</b> 1. <input type="checkbox"/> Pilot In Command    3. <input checked="" type="checkbox"/> Both Pilots    5. <input type="checkbox"/> No One 2. <input type="checkbox"/> Second Pilot    4. <input type="checkbox"/> Non-Pilot	<b>Seat Belt Available</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No
---	---	--	--

<b>Seat Belt Used</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Shoulder Harness Available</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Shoulder Harness Used</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Source Of Pilot Flight Time Information</b> 1. <input checked="" type="checkbox"/> Pilot Logbook    4. <input type="checkbox"/> Company 2. <input type="checkbox"/> Operators Estimate    5. Specify _____ 3. <input type="checkbox"/> FAA Records
---	---	--	--

Flight Time	All A/C	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	439.9	219.0	168.5		25.4		10.1	271.4		
Pilot In Command (PIC)	308.7	186.2	88.3		14.4			220.4		
Instructor	15.5	15.5	0					15.5		
This Make/Model										
Last 90 Days	42.9	27.0	2.0					40.9		
Last 30 Days	24.1	18.5	0					24.1		
Last 24 Hours	0.8	0.8	0					0.8		

**Second Pilot Information**

Second Pilot Responsibilities At The Time Of Accident  
 1.  Co-Pilot    2.  Dual Student    3.  Safety Pilot    4.  Check Pilot    5.  None (Pilot-Rated Passenger)

Pilot Name EDWARD J. FARKAS Pilot Certificate No. [REDACTED] Address WHITEFISH BAY, WI 53211 Nationality USA

Certificate(s)  
 1.  Student    3.  Commercial    5.  Flight Instructor    7.  Military    9. None \_\_\_\_\_  
 2.  Private    4.  Airline Transport    6.  Flight Engineer    8.  Foreign    10. Specify \_\_\_\_\_



**SECOND PILOT INFORMATION (cont.)**

<b>Rating(s)</b> 1. <input type="checkbox"/> None 2. <input checked="" type="checkbox"/> Single Engine Land 3. <input checked="" type="checkbox"/> Single Engine Sea 4. <input type="checkbox"/> Multiengine Land 5. <input type="checkbox"/> Multiengine Sea	6. <input type="checkbox"/> Helicopter 7. <input checked="" type="checkbox"/> Glider 8. <input type="checkbox"/> Free Balloon 9. <input type="checkbox"/> Airship 10. <input type="checkbox"/> Gyroplane	<b>Instrument Rating(s)</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> Airplane 3. <input type="checkbox"/> Helicopter	<b>Instructor Rating(s)</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> Airplane S.E. 3. <input type="checkbox"/> Airplane M.E. 4. <input type="checkbox"/> Helicopter 5. <input type="checkbox"/> Glider	6. <input type="checkbox"/> Instrument Airplane 7. <input type="checkbox"/> Instrument Helicopter 8. <input type="checkbox"/> Ground Instructor 9. Specify _____
--	--	--	--	---

<b>Type Ratings/Student Endorsements</b> HELICOPTER (R22) - SOLD BETA	<b>Date Of Biennial Flight Review Or Equivalent (M/D/Y)</b> 10/13/2000	<b>BFR Aircraft</b> 1. Make AMERICAN CHAMPION 2. Model DECATHLON
---	---	--

<b>Medical Certificate</b> 1. <input type="checkbox"/> None 2. <input type="checkbox"/> Class 1 3. <input type="checkbox"/> Class 2 4. <input checked="" type="checkbox"/> Class 3	<b>Date Of Last Medical (M/D/Y)</b> 12/21/2001	<b>Limitations</b> HELDER SHALL WEAR CORRECTIVE LENSES <b>Waivers</b> DEFECTIVE COLOR VISION WAIVER NO. 20F18135	<b>Date Of Birth</b> [REDACTED] 1954
--	---	---	---

<b>Degree Of Injury</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> Minor 3. <input type="checkbox"/> Serious 4. <input type="checkbox"/> Fatal	<b>Seat Occupied</b> 1. <input type="checkbox"/> Left 2. <input checked="" type="checkbox"/> Right 3. <input type="checkbox"/> Center 4. <input type="checkbox"/> Front 5. <input type="checkbox"/> Rear	<b>Seat Belt Available</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No
---	---	--

<b>Seat Belt Used</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Shoulder Harness Available</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Shoulder Harness Used</b> 1. <input checked="" type="checkbox"/> Yes 2. <input type="checkbox"/> No	<b>Source Of Pilot Flight Time Information</b> 1. <input checked="" type="checkbox"/> Pilot Logbook 2. <input type="checkbox"/> Operators Estimate 3. <input type="checkbox"/> FAA Records 4. <input type="checkbox"/> Company 5. Specify _____
---	---	--	--

Flight Time	All A/C	This Make & Model	Airplane		Night	Instrument		Rotorcraft	Glider	Lighter Than Air
			Single Engine	Multiengine		Actual	Simulated			
Total Time	339.2	23.4	256.8		8.2		2.6	23.4	59.0	
Pilot In Command (PIC)	234.6	0.5	191.8					0.5	42.3	
Instructor	0	0	0					0	0	
This Make/Model										
Last 90 Days	7.0	7.0						7.0		
Last 30 Days	4.9	4.9						4.9		
Last 24 Hours	0.8	0.8						0.8		

Name	Seat	Address (City & State)	Crew	Passenger		Non-Occupant	FAA	Degree Of Injury			
				Non-Revenue	Revenue			Fatal	Serious	Minor	None
N/A											

<b>Flight Itinerary Information</b>			
<b>Last Departure Point</b> 1. Airport ID 57C 2. City/Place EAST TROY, WI 3. State WI	<b>Time Of Departure</b> 1. Time 0820 2. Time Zone CST	<b>Destination</b> 1. Airport ID 57C 2. City/Place EAST TROY 3. State WI	<b>Flight Plan Filed</b> 1. <input checked="" type="checkbox"/> None 2. <input type="checkbox"/> VFR 3. <input type="checkbox"/> IFR 4. <input type="checkbox"/> VFR/IFR 5. <input type="checkbox"/> Company (VFR) 6. <input type="checkbox"/> Military (VFR)

If Weather Was Involved, State If Weather Briefing Was Obtained Or If Weather Reports Were Checked And How It Was Accomplished

NOT APPLICABLE. WEATHER NOT INVOLVED.

<b>Fuel On Board At Last Takeoff</b> 12 Gallons or Pounds	<b>Fuel Type</b> 1. <input type="checkbox"/> 80/87 2. <input checked="" type="checkbox"/> 100 Low Lead 3. <input type="checkbox"/> 100/130 4. <input type="checkbox"/> 115/145 5. <input type="checkbox"/> Jet A 6. <input type="checkbox"/> Automotive 7. Specify _____
--	---

Other Services, If Any, Prior To Departure

NONE.

<b>Weather Information At The Accident Site</b>			
<b>Source Of Weather Information</b> (Pilot/Operator, Weather Observation) VISUAL WEATHER OBSERVATION	<b>Light Condition</b> 1. <input type="checkbox"/> Dawn 2. <input checked="" type="checkbox"/> Daylight 3. <input type="checkbox"/> Dusk 4. <input type="checkbox"/> Bright Night 5. <input type="checkbox"/> Dark Night	<b>Visibility</b> 5 Miles MINIMUM	<b>Temp (°F)</b> 30°F

**Weather Information At The Accident Site (cont.)**

Dew Point <i>UNKNOWN (°F)</i>	Altimeter Setting <i>FIELD ELEVATION</i>	Sky/Lowest Cloud Condition 1. <input checked="" type="checkbox"/> Clear 2. <input type="checkbox"/> Scattered _____ Feet AGL 3. <input type="checkbox"/> Broken _____ Feet AGL	4. <input type="checkbox"/> Overcast _____ Feet AGL 5. <input type="checkbox"/> Partial Obscuration 6. <input type="checkbox"/> Obscured
----------------------------------	---	---	--

Wind Information 1. Direction <i>270° TRUE</i> 2. Velocity <i>6</i> KTS 3. Gusts <i>0</i> KTS	Restriction To Visibility <i>NONE</i>	Type Precipitation <i>NONE</i>	Intensity Of Precipitation 1. <input type="checkbox"/> Light 2. <input type="checkbox"/> Moderate 3. <input type="checkbox"/> Heavy 4. Specify <i>N/A</i>
--	--	-----------------------------------	---

Turbulence (Multiple entry)  
1.  None    2.  Light    3.  Moderate    4.  Severe    5.  Extreme    6.  Clear Air    7.  In Clouds

**Damage To Aircraft And Other Property**

Degree Of Aircraft Damage 1. <input type="checkbox"/> None    2. <input type="checkbox"/> Minor    3. <input checked="" type="checkbox"/> Substantial    4. <input type="checkbox"/> Destroyed	Fire 1. <input type="checkbox"/> Yes    2. <input type="checkbox"/> No    3. <input type="checkbox"/> In-Flight    4. <input type="checkbox"/> On Ground
---	---

Description Of Damage To Aircraft And Other Property • *MULTIPLE GOUGES IN TAXIWAY PAVEMENT PLUS COLLAPSED LEFT SKID WITH BROKEN FRONT AND REAR CROSS TUBES, SHEETMETAL SKIN DAMAGE ON LEFT SIDE CABIN EXTERIOR, DESTROYED ROTOR (MAIN) BLADES, QTY 2, SLIGHT SHEETMETAL DAMAGE TO TAIL CONE.*

**Mechanical Malfunction Failure**

1. <input type="checkbox"/> No	Total Time	
2. <input checked="" type="checkbox"/> Yes    List The Name Of The Part, Manufacturer, Part No., Serial No. And Describe The Failure	On Part	At Overhaul
• <i>FRONT CROSS TUBE / ROBINSON HELICOPTER / NO SERIAL NUMBER</i>	<i>1510.7</i> Hours	<i>N/A</i> Hours
• <i>REAR CROSS TUBE / ROBINSON HELICOPTER / NO SERIAL NUMBER</i>		

**Collision Accident**

If Collision Accident Occurred, Complete The Information For Other Aircraft

Registration mark <i>N/A</i>	Aircraft Manufacturer <i>N/A</i>	Aircraft Type/Model <i>N/A</i>	Degree Of Aircraft Damage 1. <input type="checkbox"/> Destroyed    2. <input type="checkbox"/> Substantial    3. <input type="checkbox"/> Minor    4. <input checked="" type="checkbox"/> None
---------------------------------	-------------------------------------	-----------------------------------	---

Registered Aircraft Owner <i>N/A</i>	Address <i>N/A</i>
---	-----------------------

Pilot Name <i>N/A</i>	Address <i>N/A</i>	Pilot Certificate No. <i>N/A</i>
--------------------------	-----------------------	-------------------------------------

**Evacuation Of Aircraft**

Assistance Received

1. <input checked="" type="checkbox"/> Outside Person(s)	3. <input type="checkbox"/> Slide	5. <input type="checkbox"/> Ladder
2. <input type="checkbox"/> Auxiliary Lighting	4. <input type="checkbox"/> Rope	6. <input type="checkbox"/> Specify _____

Method Of Exit (State Approximate Number Of Persons Using Each Of The Following)  
1. Main Door *2*    2. Auxiliary Door \_\_\_\_\_    3. Emergency Exit \_\_\_\_\_

**Recommendation (How Could This Accident Have Been Prevented)**

Operator/Owner Safety Recommendation (Optional Entry)  
① *RE-EVALUATE THE ROTORCRAFT/HELICOPTER FOR PRIVATE AND COMMERCIAL PILOTS PRACTICAL TEST STANDARDS, EMERGENCY OPERATIONS PER AC 61-13. THE REQUIREMENTS FOR DIRECTIONAL CONTROL OF ±10°, PRIVATE AND ±5° COMMERCIAL, DURING THE "ENGINE FAILURE IN THE HOVER IS TOO RESTRICTIVE. THE "TIGHT TOLERANCE" ON MAINTAINING HEADING DURING THIS MANEUVER REQUIRES ALOT OF PRACTISE.*  
*(CONTINUED ON BOTTOM OF PAGE 5).*

**Additional Flight Crew Members**

For Each Additional Flight Crew Member, Exclusive Of Cabin Attendants Complete The Following Information:

Name	FAA Certificate No.	Address	Title
Certificate(s) 1. <input type="checkbox"/> Student 2. <input type="checkbox"/> Private	3. <input type="checkbox"/> Commercial 4. <input type="checkbox"/> Airline Transport	5. <input type="checkbox"/> Flight Instructor 6. <input type="checkbox"/> Flight Engineer	7. <input type="checkbox"/> Foreign 8. Specify _____
Ratings/Endorsements	Total Flight Time	Flight Time This Accident	
Name	FAA Certificate No.	Address	Title
Certificate(s) 1. <input type="checkbox"/> Student 2. <input type="checkbox"/> Private	3. <input type="checkbox"/> Commercial 4. <input type="checkbox"/> Airline Transport	5. <input type="checkbox"/> Flight Instructor 6. <input type="checkbox"/> Flight Engineer	7. <input type="checkbox"/> Foreign 8. Specify _____
Ratings/Endorsements	Total Flight Time	Flight Time This Accident	
N/A			
Name	FAA Certificate No.	Address	Title
Certificate(s) 1. <input type="checkbox"/> Student 2. <input type="checkbox"/> Private	3. <input type="checkbox"/> Commercial 4. <input type="checkbox"/> Airline Transport	5. <input type="checkbox"/> Flight Instructor 6. <input type="checkbox"/> Flight Engineer	7. <input type="checkbox"/> Foreign 8. Specify _____
Ratings/Endorsements	Total Flight Time	Flight Time This Aircraft	

**OPERATOR/OWNER SAFETY RECOMMENDATIONS (CONTINUED FROM PAGE 4)**

AS A RESULT, THE TRAINING HELICOPTER IS SUBJECTED TO EXCESSIVE ABUSE, ESPECIALLY IN THE SKID STRUCTURE (I.E. CROSS TUBES). THE "WEAR AND TEAR" ON THE HELICOPTER IS NOT ISOLATED TO THE "ENGINE FAILURE IN THE HOVER." OTHER PRACTICED MANEUVERS SUCH AS RUN-ON LANDINGS/TAKE-OFFS OR AUTO-ROTATIONS RESULTING IN "CONTROLLED" RUN-ON LANDINGS ONTO PAVED TAXIWAYS OR RUNWAYS IS COMMON THROUGHOUT THE PRIVATE OR COMMERCIAL HELICOPTER TRAINING.

AS A STUDENT HELICOPTER PILOT, I HAVE LOGGED APPROXIMATELY 30 ENGINE FAILURES IN THE HOVER, 10 RUN-ON LANDINGS FOLLOWING AUTO-ROTATIONS AND 15 RUN-ON LANDINGS IN A TOTAL TIME OF 23.4 HOURS. I AM CLOSE TO HALFWAY IN EARNING MY COMMERCIAL HELICOPTER LICENSE. IN COMPARISON, VFW HELICOPTERS HAS USED THIS SINGLE HELICOPTER, N215WW, TO TRAIN APPROXIMATELY 40 STUDENTS IN THE PAST 1510.7 HOURS. THEREFORE, THE N215WW SKID ASSEMBLY (I.E. CROSS TUBES) HAVE BEEN SUBJECTED TO A LARGE NUMBER OF IMPACTS AT VARYING LOAD LEVELS.

② I ALSO RECOMMEND THAT AN OPERATIONAL SERVICE LIFE FOR THE ROBINSON HELICOPTER R22 SKID ASSEMBLY CROSS TUBES, FRONT AND REAR, BE CONSIDERED. THE CURRENT ROBINSON HELICOPTER R22 MAINTENANCE MANUAL INSPECTION CRITERIA FOR REPLACEMENT OF THE CROSS TUBES CAN BE IMPROVED. FOR EXAMPLE, THE MAINTENANCE MANUAL CRITERIA FOR CROSS TUBE REPLACEMENT RELATES TO, "REPLACE THE CROSS TUBE(S) IF THEIR YIELDING RESULTS IN A SKID-TO-LEVEL GROUND OF LESS THAN... 34 INCHES FOR AN ALPHA/BETA II OR..."

③ AS A FOLLOW ON RECOMMENDATION TO ② ABOVE, I RECOMMEND A CHANGE IN THE INSPECTION CRITERIA FOR CROSS TUBE INSPECTION. THE FAILED CROSS TUBES FROM N215WW WILL BE INSPECTED BY ROBINSON HELICOPTER CO. THEREFORE, BASED UPON THE CROSS TUBE FAILURE MODE ANALYSES, LET THE TEST RESULTS INDICATE THE TYPE OF INSPECTION CRITERIA TO BE USED IN THE FUTURE. ALSO UPDATE THE ROBINSON HELICOPTER MAINTENANCE MANUAL, R22, FOR CROSS TUBE INSPECTION CRITERIA OR AS A MINIMUM, GENERATE A SERVICE BULLETIN OUTLINING "NEW" CROSS TUBE INSPECTION CRITERIA.

**Narrative History Of Flight**

Describe What Occurred In Chronological Order, The Circumstances Leading To The Accident And The Nature Of The Accident. Describe The Terrain And Include A Sketch Of Wreckage Distribution If Pertinent. Attach Extra Sheets If More Space Is Needed. State Point Of Departure, Time Of Departure, Intended Destination And Services Obtained.

My commercial helicopter training lesson conducted on 01/05/02 began at approximately 0820 hours at the East Troy Municipal Airport, East Troy, Wisconsin. My instructor and I practiced various helicopter maneuvers per the Rotorcraft/Helicopter For Private and Commercial Pilots Practical Test Standards (PST). These maneuvers included:

1. Normal landings and takeoffs.
2. Run-on landings and takeoffs.
3. Standard autorotations to a full run-on landing or hover.
4. Engine failure in the hover.

Maneuvers 1, 2 and 3 above were conducted with good precision using runway 26. After completing maneuvers 1, 2 and 3, I flew the helicopter in a controlled taxi from runway 26 to the location selected by my instructor for practicing the Engine failure in the hover also known as "hovering auto's." The practice location on the airport was at a point on the long paved taxiway parallel to runway 08/26, approximately 30 feet west of the short perpendicular taxiway intersection. See Figure 1 for details of the practice location.

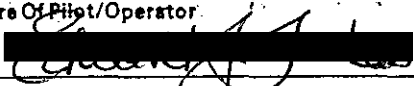
For each of the five normal Engine failure in the hover maneuvers, the helicopter was consistently located over the smooth, paved taxiway centerline, the helicopter's nose pointed into the wind. The helicopter was stabilized in a hover attitude at 3 to 5 feet over the taxiway prior to executing each emergency maneuver.

My flight instructor demonstrated the first three engine failures in the hover while I conducted the last two maneuvers. The accident occurred following completion of the fifth "normal" engine failure in the hover at approximately 0900 hours. The helicopter settled to the taxiway's paved surface and landed with both skids level and the helicopter's nose into the wind. At the point of touchdown onto the taxiway, the helicopter hesitated briefly and then began to roll very slowly onto its left side. The helicopter's main rotor blades struck the taxiway and came to rest.


My instructor and I immediately evacuated the helicopter after the rotor blades had stopped rotating, shutting down the helicopter's systems as we departed. We evacuated upwards through the pilot's right side door. After exiting the helicopter and examining the damage, it was readily apparent that the front and rear cross tubes supporting the left skid had structurally failed. See Figures 2 and 3 defining the cross tube failure locations.

(CONTINUED ON PAGE 7)

I Hereby Certify That The Above Information Is Complete And Accurate To The Best Of My Knowledge

Date Of This Report 01/16/02	Signature Of Pilot/Operator 
Signature Of Person Filing Report Other Than Pilot/Operator	
1. Signature _____	
2. Type Or Print Name _____ N/A	
3. Title _____	

For NTSB Use Only

NTSB Accident No. CH1022A061	Reviewed By NTSB Office Located At West Chicago IL	Name Of Investigator 	Date Report Received 1/28/02
---------------------------------	---	--	---------------------------------

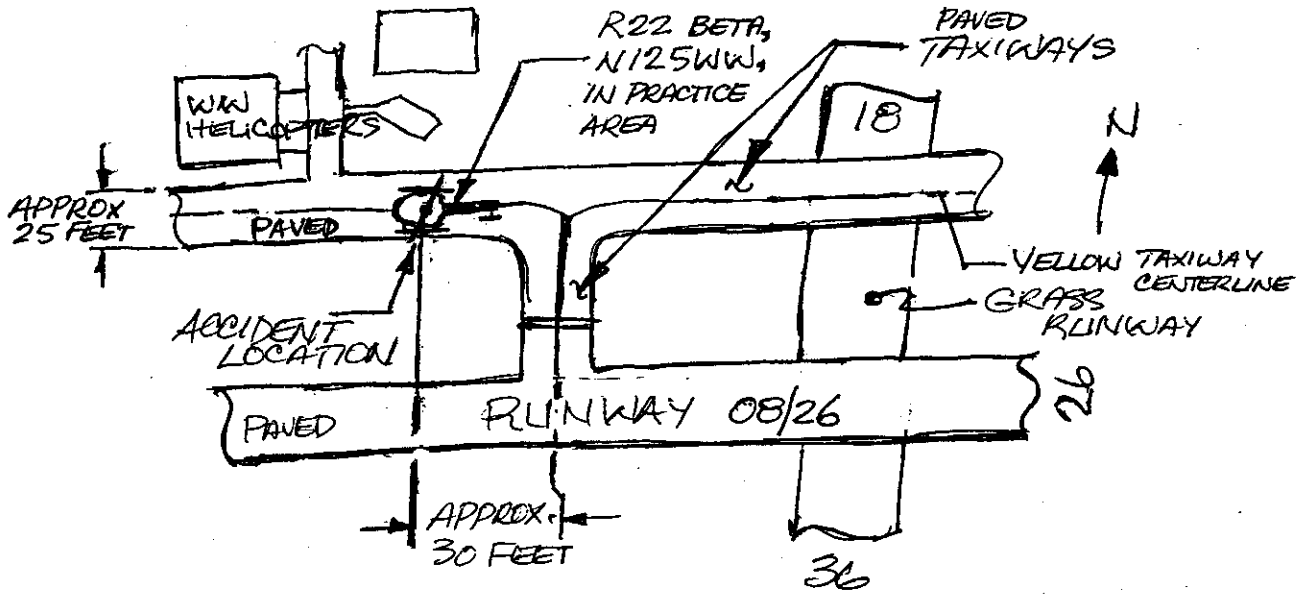


Figure 1. Engine failure in the hover, East Troy Municipal Airport practice area.

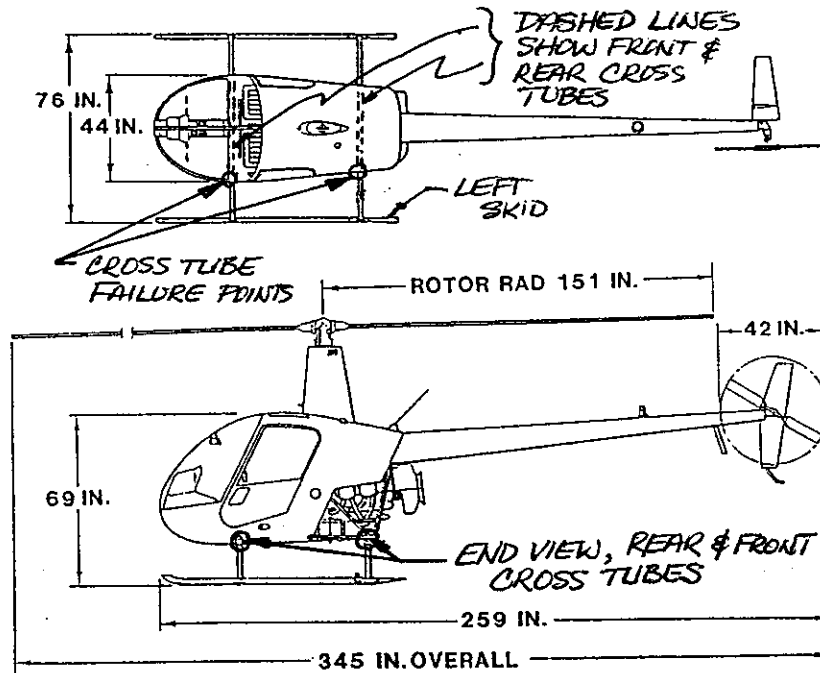


Figure 2. Robinson Helicopter, R22 Beta skid design. Note locations of the front and rear cross tubes.

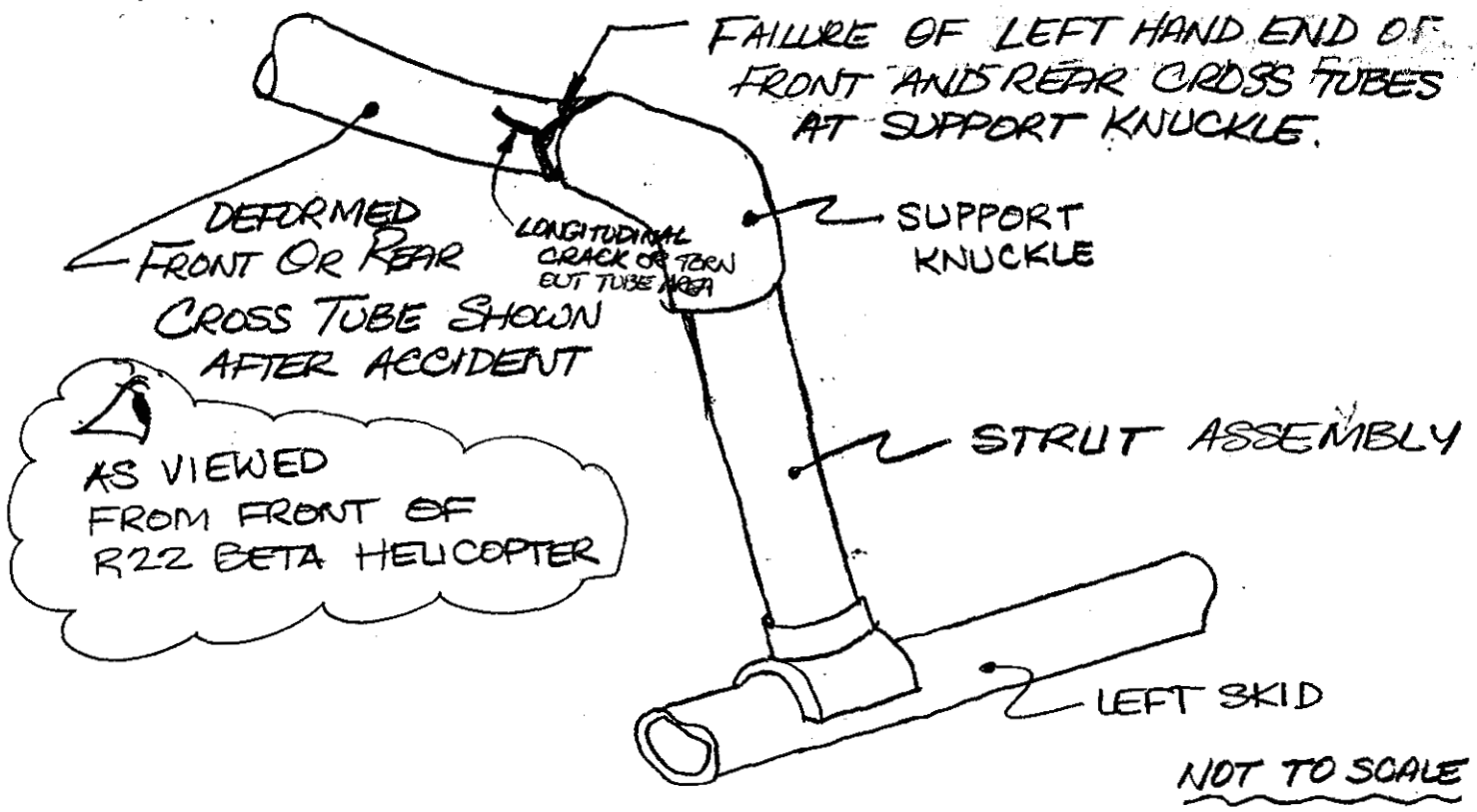
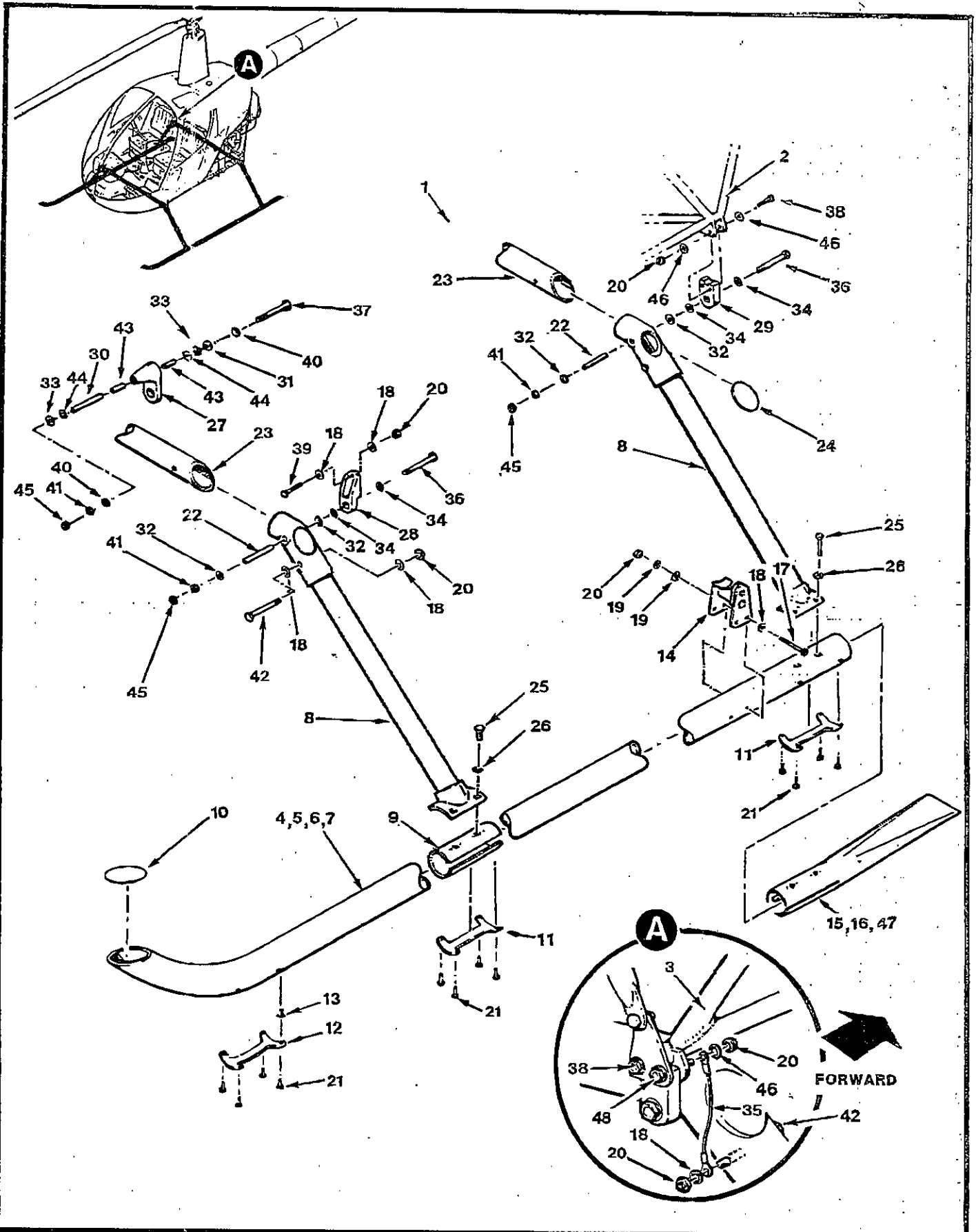


Figure 3. Illustration indicating the points of failure, front and rear cross tubes supporting the left-hand helicopter skid.

END



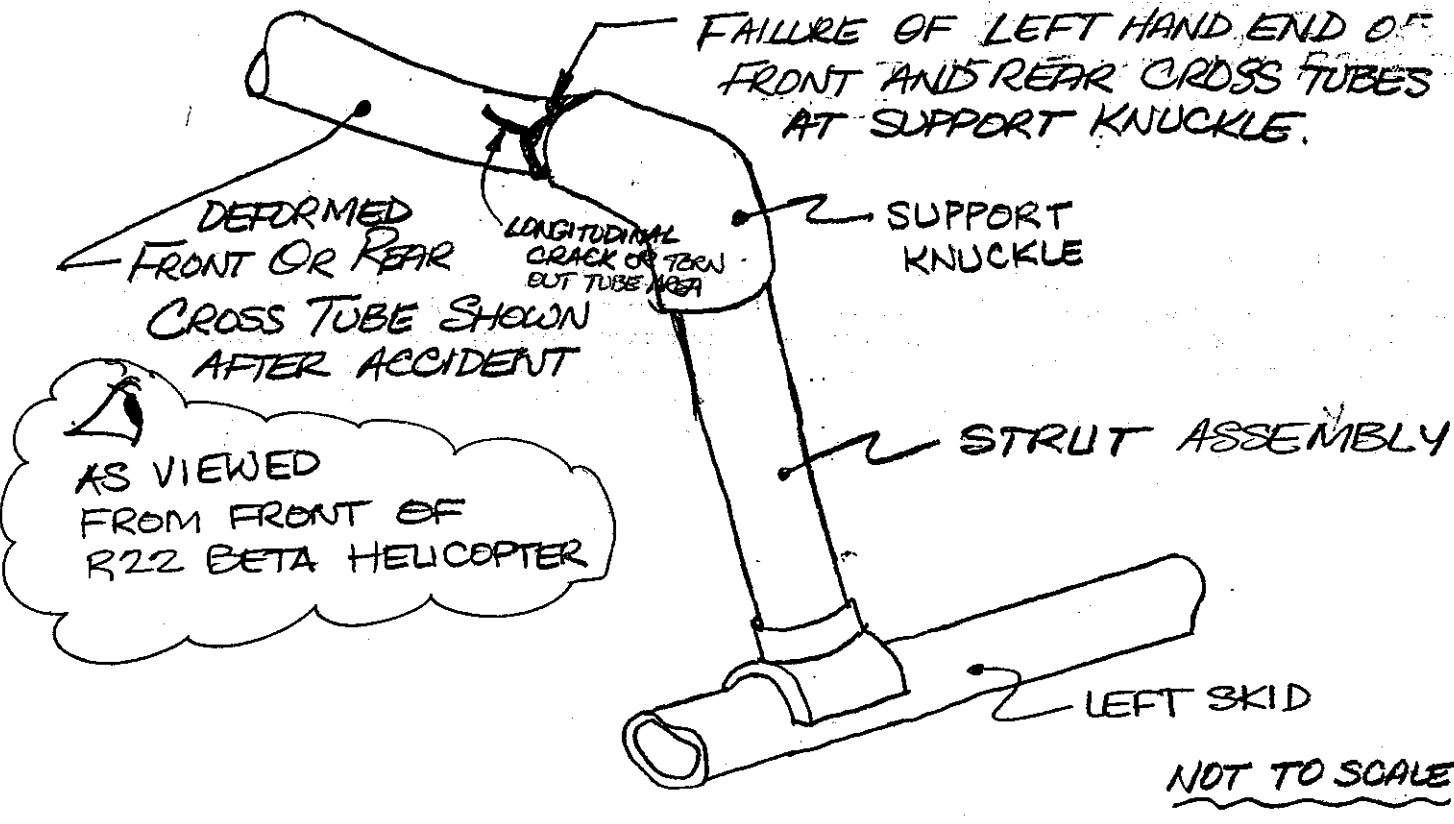


Figure 3. Illustration indicating the points of failure, front and rear cross tubes supporting the left-hand helicopter skid.

END