National Transportation Safety Board
Aviation Accident Final Report

Location:	Granite Shoals, TX	**Accident Number:**	FTW02LA110
Date & Time:	04/02/2002, 1120 CST	**Registration:**	N248JT
Aircraft:	Thornley Thornley 2000	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot took off to the north in the gyrocopter to practice takeoffs and landings, with winds light and variable. After takeoff and reaching an altitude of 90 feet agl, the aircraft stopped climbing. As the aircraft was now near the departure end of the runway, the pilot elected not to try landing on the runway, feeling he would overshoot the runway into a wooded field. The pilot proceeded northward and initiated a gentle turn to the right, intending to land on the runway to the south; however, the aircraft continued to lose altitude. When the pilot was 90 degrees into his turn, he felt he was getting too far east of the runway, at which time he decided to land to the east on an east-west roadway which bordered the north boundary of the runway. As the pilot "straightened out," the aircraft stopped losing altitude, but was now barely above treetop level. Preparing to land, the pilot's attention was diverted as he was looking for cars, overhanging trees, power lines, and TV lines, resulting in the aircraft's wheels impacting the top strand of a power line. The aircraft broke through the power lines, impacted terrain, and came to rest on its left side.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain clearance with a power line while maneuvering. Contributing factors were the pilot's diverted attention and the power lines.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: MANEUVERING

Findings
1. PRECAUTIONARY LANDING - INITIATED - PILOT IN COMMAND
2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
3. (F) DIVERTED ATTENTION - PILOT IN COMMAND
4. (F) OBJECT - WIRE,TRANSMISSION

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings
5. (F) TERRAIN CONDITION - OPEN FIELD

Factual Information

On April 2, 2002, approximately 1120 central standard time, a Thornley 2000 experimental/homebuilt gyrocopter, N248JT, was substantially damaged when it impacted power lines and terrain while maneuvering near Granite Shoals, Texas. The student pilot, sole occupant, received serious injuries. The Subaru powered gyrocopter was owned by a private individual and operated under 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed for the local flight, and a flight plan was not filed. The personal flight originated from Granite Shoals at 1100.

In the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2), the pilot reported that he took off to the north to practice takeoffs and landings, with winds light and variable, "and everything seemed to be functioning properly." After takeoff and reaching an altitude of 90 feet agl, the aircraft stopped climbing. The pilot stated "by the time it became clear to me that I should be concerned, I was so close to the departure end of the runway, that I was afraid to attempt a runway landing for fear of overshooting into the wooded field at the north end of the runway." He proceeded northward and initiated a gentle turn to the right, intending to land on the runway to the south; however, the aircraft continued to lose altitude. Ninety degrees into his turn, the pilot reported "I was venturing too far east of the runway to make a safe return to the airport. At this point I made the decision to land to the east on an east-west roadway which bordered the north boundary of the runway". As the pilot "straightened out," the aircraft stopped losing altitude, but was now barely above treetop level. Preparing to land, the pilot said his attention was diverted, as he was looking for cars, overhanging trees, power lines, and TV lines. The pilot further stated that this resulted in the aircraft's wheels impacting the top strand of a power line. The aircraft broke through the power lines and impacted terrain, coming to rest on its left side.

The pilot reported his total time in this make and model aircraft was 162 hours, with 121 hours as pilot in command. He also reported that in the last 90 days, 30 days, and 24 hours respectively, he had accumulated 1 hour of flight time.

According to an FAA inspector, who responded to the accident site, the gyrocopter's cockpit area was intact, all rotor blades were bent, and the remaining structure was bent and twisted.

At 1053, the reported weather conditions at the Austin-Bergstrom International Airport, located approximately 40 miles southeast of the accident site, were wind from 150 degrees at 7 knots, visibility 10 statute miles, scattered clouds at 4,500 feet, temperature 28 degrees C, dew point 19 degrees C, and an altimeter setting of 29.96 inches of mercury.

Pilot Information

Certificate:	Student	**Age:**	66, Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	**Last FAA Medical Exam:**	01/12/2001
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	162 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Thornley	**Registration:**	N248JT
Model/Series:	Thornley 2000	**Aircraft Category:**	Gyroplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental	**Serial Number:**	H2-00-11-461
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	12/18/2001, Annual	**Certified Max Gross Wt.:**	1330 lbs
Time Since Last Inspection:	52 Hours	**Engines:**	1 Reciprocating
Airframe Total Time:	202 Hours at time of accident	**Engine Manufacturer:**	Subaru
ELT:	Not installed	**Engine Model/Series:**	ALL MDLS A/B
Registered Owner:	Johnny Thornley	**Rated Power:**	145 hp
Operator:	Johnny Thornley	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	Light and Variable /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	27°C
Precipitation and Obscuration:			
Departure Point:	Granite Shoals, TX (32TE)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	1100 CST	**Type of Airspace:**	Class G

Airport Information

Airport:	Granite Shoals Muni Airport (32TE)	**Runway Surface Type:**	Grass/turf
Airport Elevation:	860 ft	**Runway Surface Condition:**	Dry
Runway Used:	02	**IFR Approach:**	None
Runway Length/Width:	2000 ft / 50 ft	**VFR Approach/Landing:**	Precautionary Landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	30.578333, -98.340278

Administrative Information

Investigator In Charge (IIC):	Thomas M Little	**Report Date:**	04/01/2003
Additional Participating Persons:	Billy R Richey; Federal Aivation Administration; San Antonio, TX		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.		

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