



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Teterboro, NJ	<b>Accident Number:</b>	NYC05FA026
<b>Date &amp; Time:</b>	12/01/2004, 1623 EST	<b>Registration:</b>	G-GMAC
<b>Aircraft:</b>	Gulfstream Aerospace G-IV	<b>Injuries:</b>	9 None
<b>Flight Conducted Under:</b>	Non-U.S., Commercial		

## Analysis

The flight was cleared for the ILS Runway 19 approach, circle-to-land on Runway 24; a 6,013-foot-long, 150-foot wide, asphalt runway. The auto throttle and autopilot were disengaged during the approach, about 800 feet agl. However, the auto throttle reengaged just prior to touchdown, about 35 feet agl. The flightcrew did not recall reengaging the auto throttle, and were not aware of the autothrottle reengagement. According to the auto throttle computers, the reengagement was commanded through one of the Engage/Disengage paddle switches located on each power lever. The target airspeed set for the auto throttle system was 138 knots. After touchdown, as the airplane decelerated below 138 knots, the auto throttle system gradually increased the power levers in an attempt to maintain the target airspeed. Without the power levers in the idle position, the ground spoilers and thrust reversers would not deploy. While the flightcrew was pulling up on the thrust reverser levers, they may not have initially provided enough aft force on the power levers (15 to 32 lbs.) to override and disconnect the auto throttle system. The flight data recorder indicated that the autothrottle system disengaged 16 seconds after the weight-on-wheels switches were activated in ground mode. As the airplane neared the end of the runway, the pilot engaged the emergency brake, and the airplane departed the right side of the runway. The auto throttle Engage/Disengage paddle switches were not equipped with switch guards. Although the autothrottle system provided an audible tone when disengaged, it did not provide a tone when engaged. The reported wind about the time of the accident was from 290 degrees at 16 knots, gusting to 25 knots, with a peak wind from 300 degrees at 32 knots.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The flightcrew's inadvertent engagement of the autothrottle system, and their failure to recognize the engagement during landing, which resulted in a runway excursion. Factors were the lack of autothrottle switch guards, lack of an autothrottle engagement audible tone, and gusty winds.

## Findings

Occurrence #1: MISCELLANEOUS/OTHER  
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

### Findings

1. (F) AUTOPILOT/FLIGHT DIRECTOR,AUTO THROTTLE - OTHER
2. (C) THROTTLE/POWER CONTROL - INADVERTENT ACTIVATION - FLIGHTCREW
3. (F) AUTOPILOT/FLIGHT DIRECTOR,AUTO THROTTLE - OTHER
4. (C) THROTTLE/POWER CONTROL - NOT RECOGNIZED - FLIGHTCREW

5. (F) WEATHER CONDITION - GUSTS  
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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

6. LANDING GEAR, EMERGENCY BRAKE SYSTEM - ACTIVATED  
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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: LANDING - ROLL

Findings

7. OBJECT - TREE(S)

### Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	55
<b>Airplane Rating(s):</b>	Multi-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	10000 hours (Total, all aircraft), 1000 hours (Total, this make and model)		

### Co-Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	36
<b>Airplane Rating(s):</b>	Multi-engine Land	<b>Instrument Rating(s):</b>	Airplane; Helicopter
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Instructor Rating(s):</b>	Helicopter; Instrument Helicopter
<b>Flight Time:</b>	8000 hours (Total, all aircraft), 2000 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Gulfstream Aerospace	<b>Registration:</b>	G-GMAC
<b>Model/Series:</b>	G-IV	<b>Engines:</b>	2 Turbo Fan
<b>Operator:</b>	Gama Aviation Ltd.	<b>Engine Manufacturer:</b>	Rolls-Royce
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	TAY 611R
<b>Flight Conducted Under:</b>	Non-U.S., Commercial		

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	TEB, 9 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	16 knots / 25 knots, 290°
Temperature:	11° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Luton (EGGW)	Destination:	Teterboro, NJ (TEB)

## Airport Information

Airport:	Teterboro Airport (TEB)	Runway Surface Type:	Asphalt
Runway Used:	24	Runway Surface Condition:	Dry
Runway Length/Width:	6013 ft / 150 ft		

## Wreckage and Impact Information

Crew Injuries:	3 None	Aircraft Damage:	Substantial
Passenger Injuries:	6 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	40.850000, -74.060833		

## Administrative Information

Investigator In Charge (IIC):	Robert J Gretz	Adopted Date:	05/30/2006
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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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