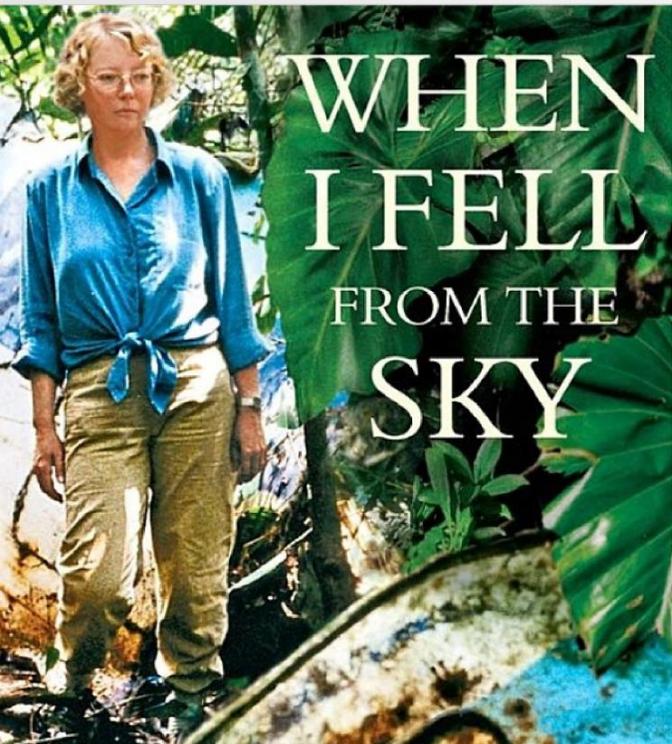
The background of the slide is a light gray gradient with several realistic water droplets of various sizes scattered across it. The droplets have highlights and shadows, giving them a three-dimensional appearance.

**FALLING FROM 10,000 ft –  
Investigating one of the most  
mysterious airplane accidents  
and the story of the sole  
survivor**

TERESA J KONOPKA



*“With a jolt the tip of the airplane falls steeply downwards. Even though I’m in a window seat right at the back, I can see the whole aisle to the cockpit, which is below me. The physical laws have been suspended; it’s like an earthquake. No, it’s worse. Because now we’re racing downwards. We’re falling. People are screaming.”*

~“When I Fell From The Sky: The True Story of One Woman's Miraculous Survival” by Juliane Koepcke

# FACTS



## The Flight

- December 24, 1971
- LANSA Flight 508 from Lima to Pucallpa (Peru)
- Lockheed L-188A Electra Turboprop

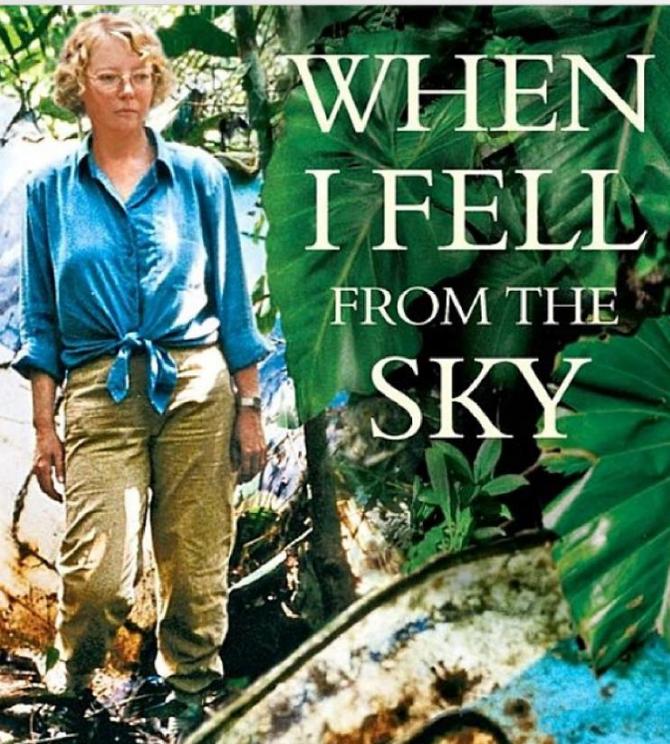


**Juliane Koepcke: Survivor of the LANSA Flight 508**

## The Girl

- 17 year old daughter of biologist and zoologist
- Homeschooled in jungle of Peru
- Fell from 9200 ft into the Amazon rainforest
- Stranded for 11 days until rescued

*“My mother is no longer at my side and I’m no longer in the airplane. I’m strapped into my set, but I’m alone. Alone. At an altitude of about ten thousand feet, I’m alone. And I’m falling.”*

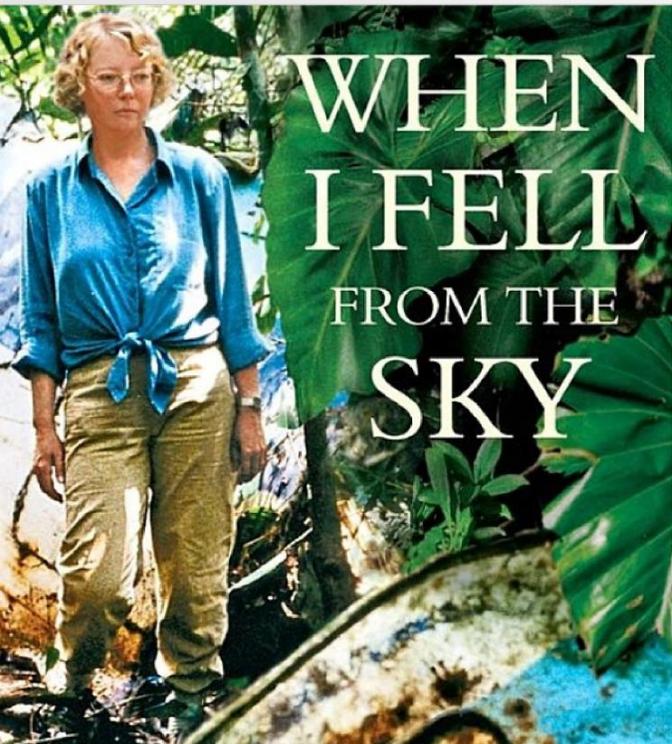


~“When I Fell From The Sky: The True Story of One Woman's Miraculous Survival” by Juliane Koepcke

# THE CRASH

- The aircraft was flying at 21,000 ft when it hit severe turbulence and thunderstorms
- With pressure to meet holidays schedules, the crew continued the flight
- The aircraft broke apart mid-air





*“For the first time since I set off on my own in the jungle, I’m horrified. I come around the next river bend, and there I see it. A three-seat bench, just like mine, only this one here is rammed headfirst about three feet into the earth. The heads of the passengers—two men and a woman—are also stuck there in the rain forest floor, only their legs jutting grotesquely upwards.”*

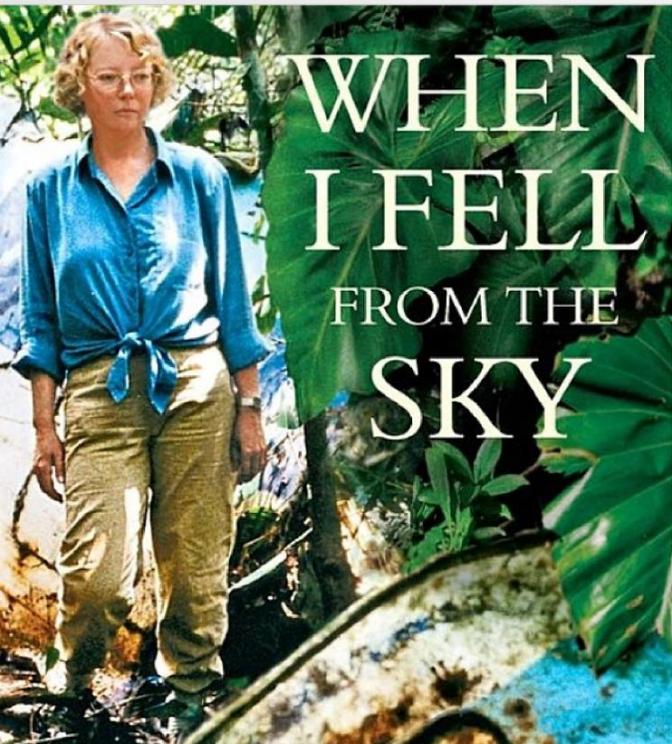
~“When I Fell From The Sky: The True Story of One Woman's Miraculous Survival” by Juliane Koepcke

# SURVIVING THE AMAZON

Juliane survived her fall from two miles in the sky and....

- had a broken collarbone, right eye swollen shut, and a large wound on her arm
- followed a stream to civilization....who thought she was a river goddess (natives never saw a white person before)
- poured gasoline on her arm to get worms out from under her skin (they had laid eggs)
- her mother survived the crash but died due to injuries





*“My mother tried to get a flight on the reliable Faucett airline, but they were all booked. The only other airline that flew to Pucallpa that day was LANSA, which had already lost two planes in crashes. My father had specifically urged my mother not to fly with that airline. But the alternative would have been waiting another day, or even two. And my mother didn’t have the patience for that. ‘Ah,’ she said, ‘not every plane’s going to crash.’ And so she booked two seats for us on that plane.”*

~“When I Fell From The Sky: The True Story of One Woman's Miraculous Survival” by Juliane Koepcke

# INTERVIEW WITH JULIANE

<https://www.msnbc.com/today/watch/woman-fell-from-the-sky-survives-plane-crash-44516419983>

# REGULATIONS

## 14 CFR § 25.581 - Lightning protection.

CFR

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prev next

### § 25.581 Lightning protection.

- (a) The [airplane](#) must be protected against catastrophic effects from lightning.
- (b) For metallic components, compliance with [paragraph \(a\)](#) of this section may be shown by -
- (1) Bonding the components properly to the [airframe](#); or
  - (2) Designing the components so that a strike will not endanger the [airplane](#).
- (c) For nonmetallic components, compliance with [paragraph \(a\)](#) of this section may be shown by -
- (1) Designing the components to minimize the effect of a strike; or
  - (2) Incorporating acceptable means of diverting the resulting electrical current so as not to endanger the [airplane](#).

[Amdt. 25-23, [35 FR 5674](#), Apr. 8, 1970]

# REGULATIONS

## 14 CFR § 25.954 - Fuel system lightning protection.

CFR

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### § 25.954 Fuel system lightning protection.

(a) For purposes of this section -

(1) A critical lightning strike is a lightning strike that attaches to the [airplane](#) in a location that, when combined with the failure of any design feature or structure, could create an ignition source.

(2) A fuel system includes any component within either the fuel tank structure or the fuel tank systems, and any [airplane](#) structure or system components that penetrate, connect to, or are located within a fuel tank.

(b) The design and installation of a fuel system must prevent catastrophic fuel vapor ignition due to lightning and its effects, including:

(1) Direct lightning strikes to areas having a high probability of stroke attachment;

(2) Swept lightning strokes to areas where swept strokes are highly probable; and

(3) Lightning-induced or conducted electrical transients.

(c) To comply with [paragraph \(b\)](#) of this section, catastrophic fuel vapor ignition must be extremely improbable, taking into account flammability, critical lightning strikes, and failures within the fuel system.

(d) To protect design features that prevent catastrophic fuel vapor ignition caused by lightning, the type design must include critical design configuration control limitations (CDCCLs) identifying those features and providing information to protect them. To ensure the continued effectiveness of those design features, the type design must also include inspection and test procedures, intervals between repetitive inspections and tests, and mandatory replacement times for those design features used in demonstrating compliance to [paragraph \(b\)](#) of this section. The applicant must include the information required by this paragraph in the Airworthiness Limitations section of the Instructions for Continued Airworthiness required by § 25.1529.

[Doc. No. [FAA-2014-1027](#), Amdt. 25-146, [83 FR 47556](#), Sept. 20, 2018]