

“On The Clock”

Or...how much time do we have?

Al Gorthy

Captain, USN Retired

Presented by



AIR CHARTER SERVICE



What I Know!

Human error adapts.

Standardization = survival .

Good enough isn't.

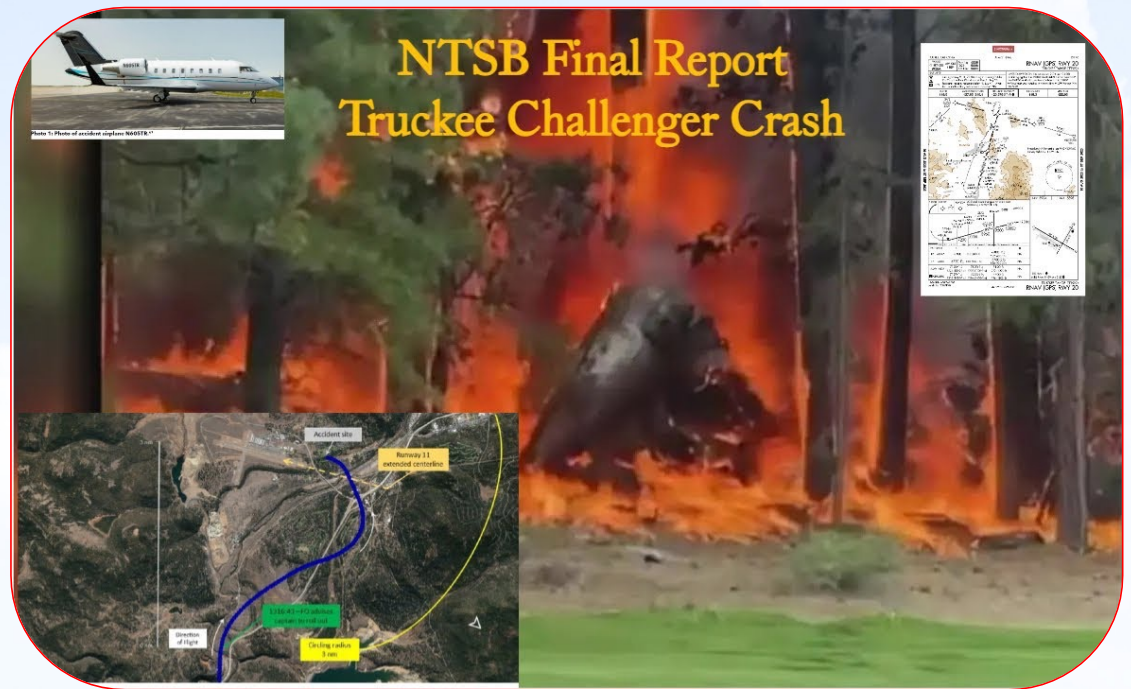
There are no do overs.

“Safe” \neq accident immune.

What I Don't Know!

The WHY!

Why are the same type of accidents happening over and over again?



Truckee Challenger Crash, I don't know WHY.

Crew failed to brief the circle to land approach.

Cat D circle to land not authorized. Crew used Cat C speed & visibility limits.

Poor visibility caused crew to fly to close to airport resulting in overshoot.

1st officer extended spoilers and pulled aircraft around to align with runway.

Stall warning

Spoilers were

No attempt to go around from unstabilized approach.

Could it happen to me?

NTSB:

First officer improper decision to salvage an overshoot with steep left turn to realign with runway.

Capt. failure to intervene and take control of aircraft.

What's Not OK!

Being off altitude by 200 feet.

Stalling the aircraft on a straight in approach.

Failing to install the bolts in a door plug.

Failing to properly train aircrew after a software update.

Causing a runway incursion.

Landing on short, wet runway with a tailwind.

Failing to perform the takeoff or landing checklist.

Could it happen to me?

We are all hard wired to the SURVIVAL mode.

But oftentimes SOMETHING gets in our way of making the CORRECT decision.

And I don't know WHY!



Chicago Midway Airport
December 8, 2005

Chicago Fire Dept.

What I'm inclined to believe!

IT'S HUMAN NATURE TO:

Underestimate the risk and

Overestimate:

Our capabilities

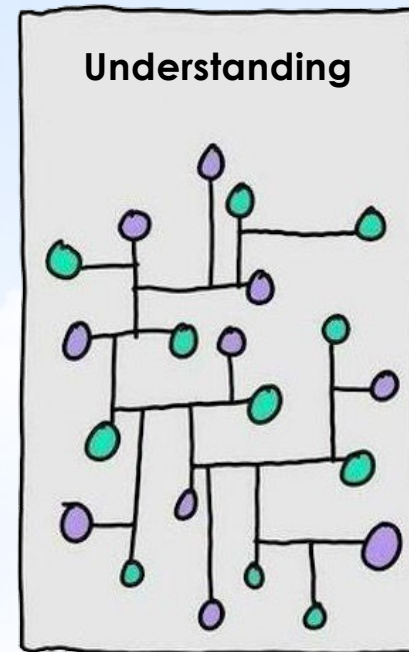
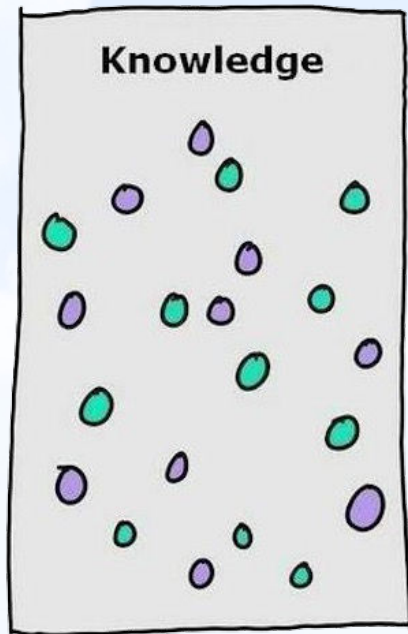
Capabilities of the aircraft

Validity of information available



Knowledge \neq Understanding

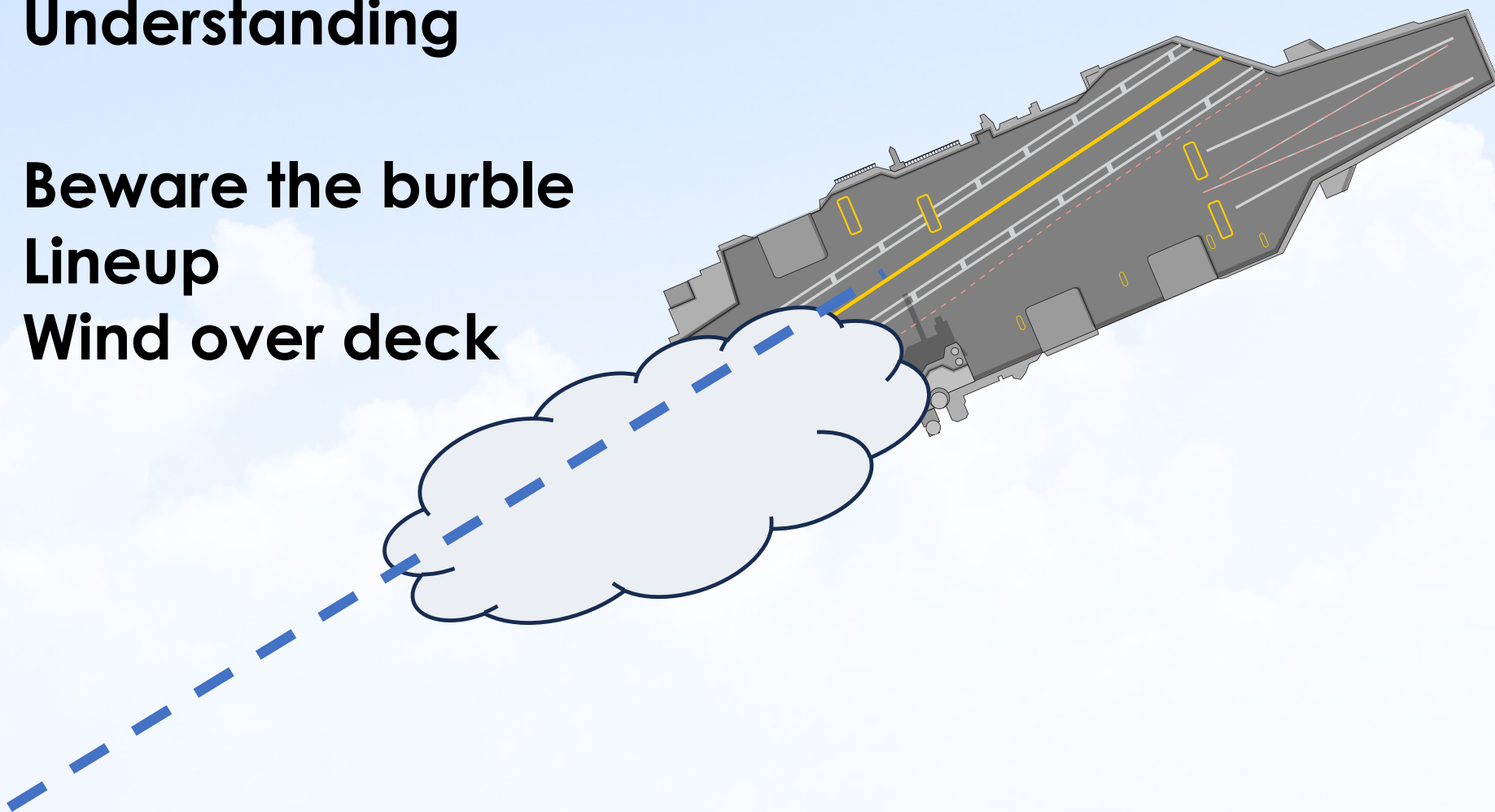
**Information acquired
through learning.**



**The capacity to
apply knowledge.**

Understanding

Beware the burble
Lineup
Wind over deck



A photograph of an airplane cockpit at night. The view is from the passenger side looking towards the pilots. The cockpit is filled with numerous illuminated instruments, including analog gauges and digital displays. The pilots are visible from the back, looking out the windshield at a runway illuminated by blue lights. A text box is overlaid on the upper right portion of the image.

I don't understand.

A photograph of a white Delta airplane on a runway. The aircraft is angled towards the left. The word "DELTA" is visible on the side of the fuselage, and "CONNECT" is partially visible above it. The tail number "N1730" is visible on the rear fuselage. A person wearing a bright yellow high-visibility vest and a dark cap stands in the foreground on the right, facing away from the camera. The runway surface is dark and appears wet. The sky is overcast and grey.

Do we understand?

Could it happen to me?



***If you always have
someone clean your
shoes, then you will
always walk in the mud.***

**Do you now
understand?**

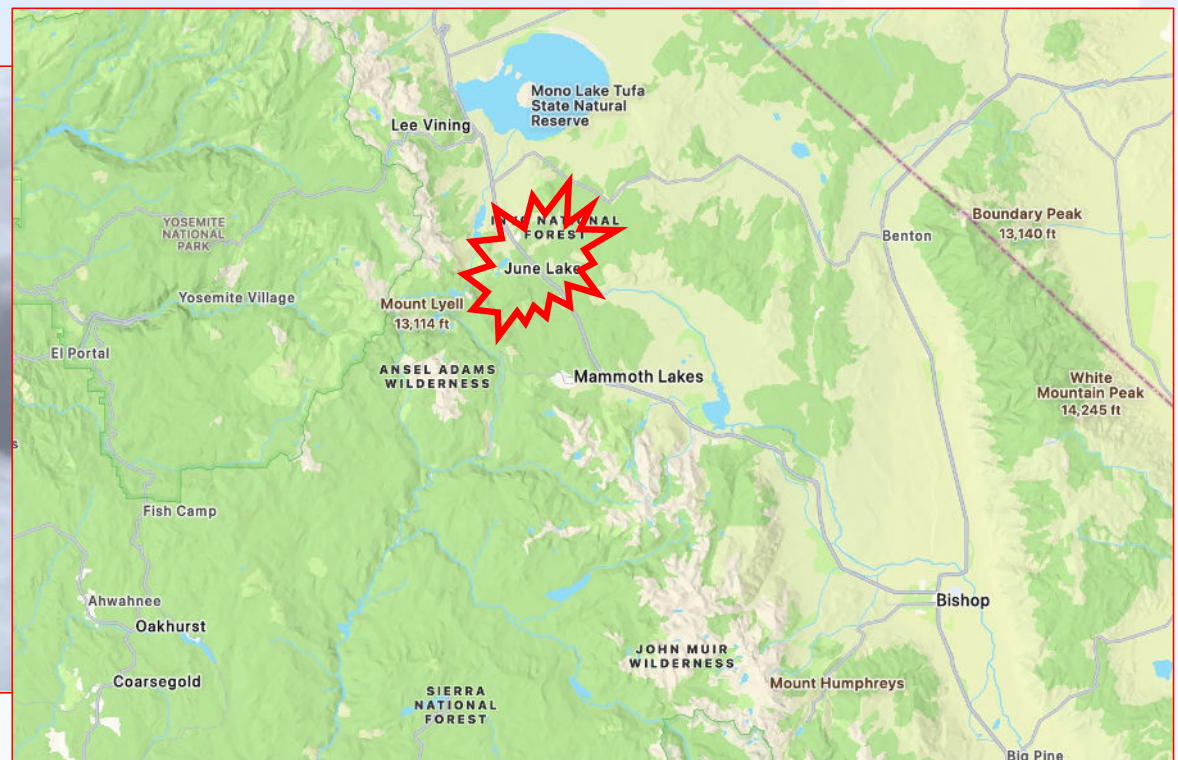
Story Time

“If you don’t want to lose, you better **learn.**”

~Wrestling Mom

- **Decisions**
- **Pressure**
- **Knowledge**
- **Understanding**
- **Risk**
- **Capabilities**
- **Time**

Story #1 - “Cancel IFR !”



Discussion – What Happened?

Knowledge

Understanding

Training sortie requirements

Situational awareness

Underestimate risk?

Overestimate capabilities?

WHY?

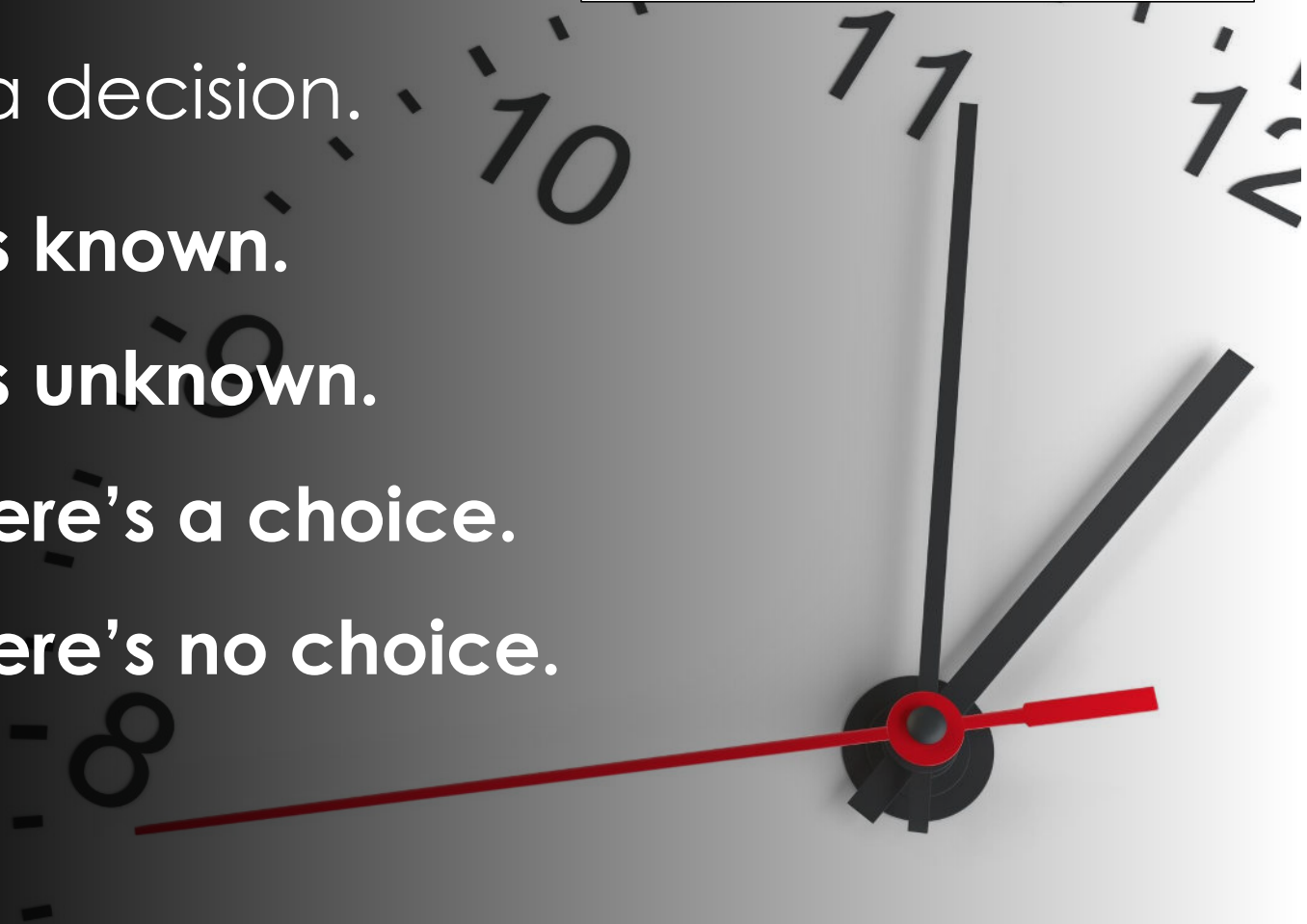
At Wheels UP

- No safe haven
- No retreat
- No do overs
- No rehearsals
- No confusion
- On the clock

“On the Clock”

A **TIME LIMIT** for a decision.

- Sometimes it's known.
- Sometimes it's unknown.
- Sometimes there's a choice.
- Sometimes there's no choice.





**LOW
FUEL**



Distance or Time

Pitch Clock



Play Clock



Shot Clock



“On the Clock”



Beat the Clock



WHAT ARE YOU DOING?

R S T L N E

C H P A



2025
NFL DRAFT TOP 25

1 MYKEL WILLIAMS | EDGE

2 WILL CAMPBELL | OT

3 KELVIN BANKS JR. | OT

4 DEONE WALKER | DT

5 WILL JOHNSON | CB

6 MASON GRAHAM | DT

7 MALAKI STARKS | S

8 ABDUL CARTER | EDGE

9 NIC SCOURTON | EDGE

10 EMERY JONES JR. | OT

11 TRAVIS HUNTER | CB

12 BENJAMIN MORRISON | CB

13 TETAIROA MCMILLAN | WR

14 JAMES PIERCE JR. | EDGE

15 QUINSHON JUDKINS | RB

16 JACK SAWYER | EDGE

17 JALON WALKER | LB

18 PATRICK PAYTON | EDGE

19 COLSTON LOVELAND | TE

20 RILEY LEONARD | QB

21 HAROLD PERKINS JR. | LB

22 J.T. TUIMOLOAU | EDGE

23 CARSON BECK | QB

24 EMEKA EGBUKA | WR

25 LUTHER BURDEN III | WR

IN GREEN BAY
APRIL 24TH - 26TH



In every one of these cases, the players **KNEW** when the clock started and they **KNEW** when it would stop.



Story #2

“Do you see this?”

FL290, IFR
Somewhere over NorCal
January 1994



Discussion – What Happened?

Flight Planning – Wx Brief

Risk vs. capabilities

Weight and balance

IFR – Icing

Knowledge

Understanding

Situational awareness

Time

Can this happen in your organization?

What if we're startled?

What do we do?

**How much time do
we have?**

What's our plan?



CRM & Time Stress – When little time is left!

Who's in charge?

Who's flying the aircraft?

Leadership and followership roles

Right/wrong decisions

Grey vs. Green

Airmanship



Picture yourself here.

Plan?

Time?

Chaos or Calm?

Pressure?

When we're startled.

**Blueprint for Calm
and Control?**

**A Recipe
for Chaos?**

Control

- Trust your training
- Fight with what you've got
- Reduce the number of choices/decisions
- Engage in logical reasoning
- Focus on the **PROCESS**, not the outcome

Airbus A320

January 15, 2009

155 pax and crew



- 3:25 pm - takeoff
- 3:27 pm - bird strike (clock starts)
- 3:29 pm - "This is the Captain, brace for impact."

A photograph of a trauma team in an operating room. Several surgeons in blue scrubs, masks, and hairnets are huddled over a patient, illuminated by bright surgical lights. The scene is focused and urgent.

Trauma Team

How much time do we have?

Rapidly assess, resuscitate, and stabilize patients.

“Pilots had 74 seconds from warnings to I-75 landing.”-NTSB

Plan?

How much time do we have?

“The flight attendant, was able to get the rear door open for her and the two passengers to escape.”

- NTSB

**February 9, 2024
Naples, FL
2 Fatalities**

Chaos

- **Fear affects rational thought**
- **Impending danger degrades clock management**
- **Negative thinking impacts decisions**
- **Intense emotions paralyzes analytical thinking**
- **Impulsive reactions dominate decisions**

March 24, 2024, 1:00 AM
Dali Cargo Ship

Chaos or calm?



Less than 1 min from last power loss to impact.

What's the Plan?

**New Orleans
Dec 31, 2024**

Chaos or calm?



An aerial night photograph of Los Angeles, showing a dense network of glowing city lights and major freeways. The lights are concentrated in the urban areas, with some freeways appearing as bright, winding lines. The overall color palette is dominated by warm tones of orange, yellow, and red, with some cooler blue and green highlights. The text is overlaid on this image.

What's the plan?

Los Angeles | Jan 8, 2025

Chaos or calm?

How much time do we have?

January 8, 2025

Common Threads?

Plan - scrutinized.

Knowledge & understanding - tested.

Performance - analyzed.

Strengths & weaknesses – displayed.

Decisions – questioned.

Accountability - determined.

Who should be “blamed” when a leaf falls from a tree?

- Is it the **wind** that blew it away?
- Is it the **tree** that let it go?
- Is it the **leaf** who grew tired holding on?
- Life exposes mistakes every day.
- It's up to us to solve it, or leave it, or live with it.

~Unknown Author



Story #3

“The Check Flight”



135 kts

Approach Speeds

**Meridian, MS
1976**



110 kts

Discussion – What Happened?

Startled?

Pressure & stress on student

Experience

Knowledge

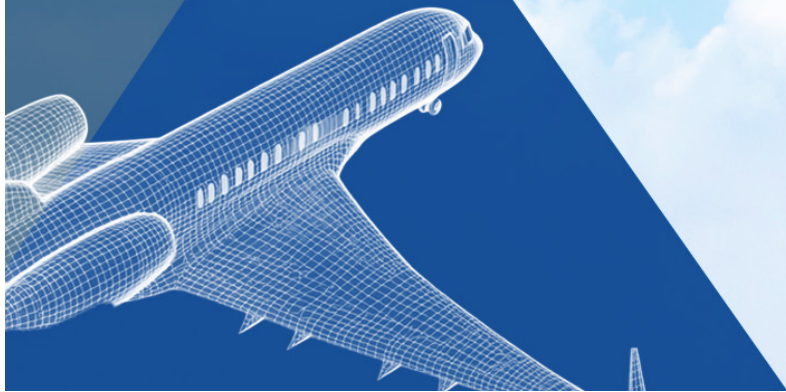
Understanding

Situational awareness

Time

My actions

**We don't get to pick and choose
the time or date when our
knowledge and understanding is
put to the test.**





When You're "On The Clock" So Is Your Resume of Achievement!

**No time outs
No intermissions
No pauses
No recesses
No Confusion**

Solve it or live with it.



You're **ALWAYS** on the clock!

Head of state, company, master,
household, chef, coach. You and your
organization are always on the clock.
The clock doesn't just start with the
startle response.

Story #4

“Radio Check.”



**Vicinity of
Mono Lake, CA
1972**



Discussion – What Happened?

Knowledge/understanding

Wrong aircraft for mission

Faulty mission planning

Simulator vs. actual flight

No escape plan

Unacceptable risk?

WHY?

3 GOATs

A photograph of Nick Saban, a man with brown hair, wearing a white polo shirt with a red 'A' logo and a Nike swoosh. He is looking off to the side with a serious expression.

Nick Saban
7 National Titles
11 SEC Titles

A photograph of Tom Brady from behind, wearing a dark blue New England Patriots jersey with the number 12 in white with red and blue outlines. He is also wearing a silver helmet with the number 12 and the word 'PATRIOTS' on the back.

Tom Brady
7 Super Bowls

A photograph of Kobe Bryant in a purple and gold Los Angeles Lakers jersey with the number 24. He has his hands on his hips and is looking down.

Kobe Bryant
5 NBA Titles

The “Nothing” Speech

“If you wake up in the morning and feel **entitled**, what does that give you? – Nothing. If you think somebody **owes you** something, you get – Nothing.

If you **lose** your **discipline** and **work ethic**, you get – Nothing.

If you **fail** to **prepare** and **pay attention to detail**, you get – Nothing.

So, there is **NOTHING** more important than **staying focused on being the best you can be** no matter what you chose to do.”



**Took 26 years to
win 1ST
Championship**

Never get bored with the basics – it's not easy.
It's never OK to skip steps.

Focus on what works.

What do you need to work on to improve?

Work relentlessly during the unseen hours to
improve.

Complexity undermines execution – keep it simple.

Set unparalleled standards today for tomorrow's
success.

*Alan Stein Coach &
Author*



Patriots – 2024 Hall of Fame Speech

“You don’t have to be special.

You just have to be what most people aren’t.

Consistent, persistent, and dedicated. You must be willing to work hard, willing to be a team player, willing to put forth the EFFORT when your body & everyone says quit.

Experience builds you for the moment.

Expertise takes you through it. **No shortcuts.**”

199th pick in 6th Round
of 2000 NFL Draft

One of NFLs slowest QB



2nd most sacked QB in
NFL history

Avg time to release ball
2.17 sec – fastest in NFL

What is the

- **Recurring theme**
- **Shared element**
- **Connecting link**
- **Common denominator**

**Tenacious, Determined, Tireless
Continuous Improvement**

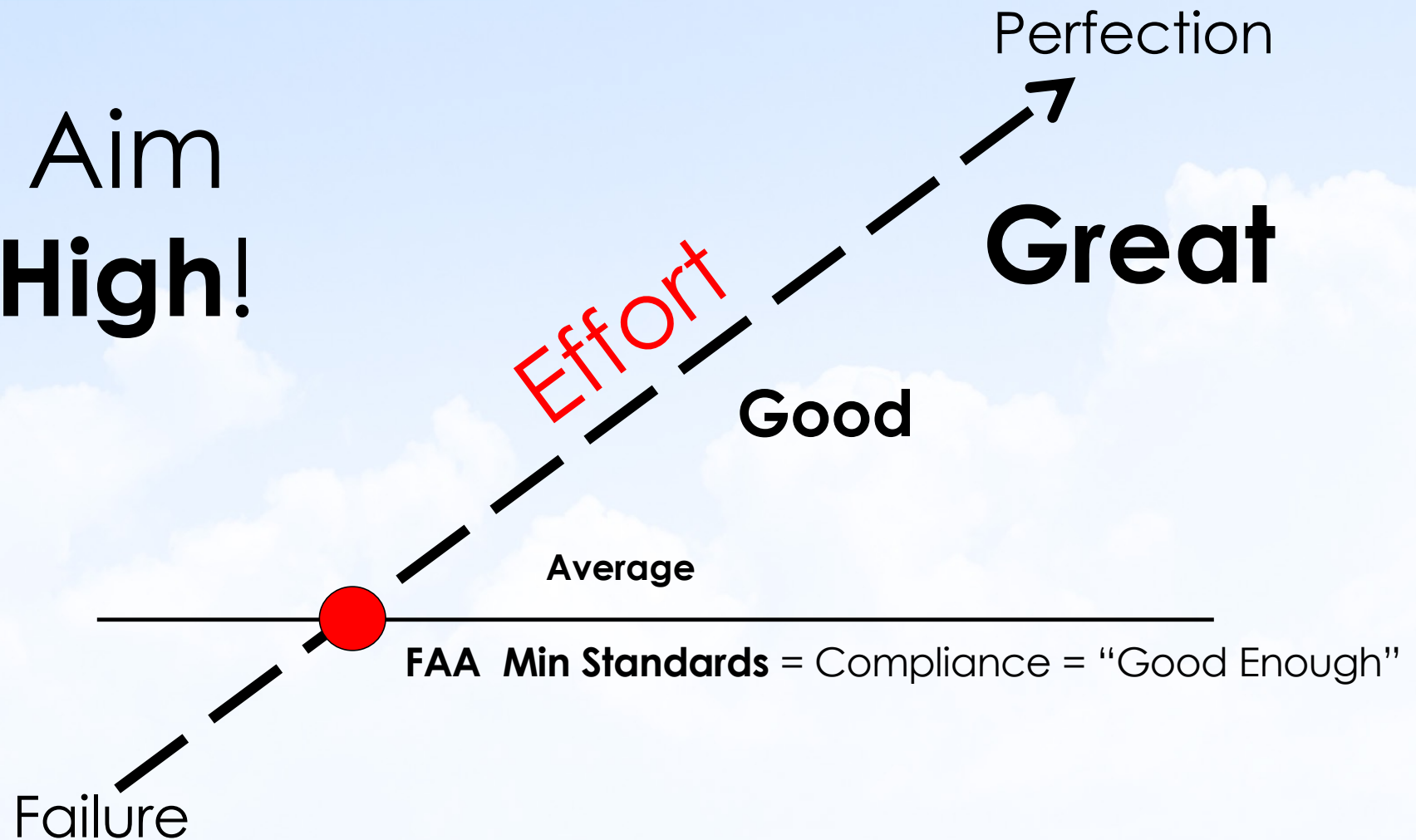
What **ONE WORD** is absent from
the GOAT's statements?

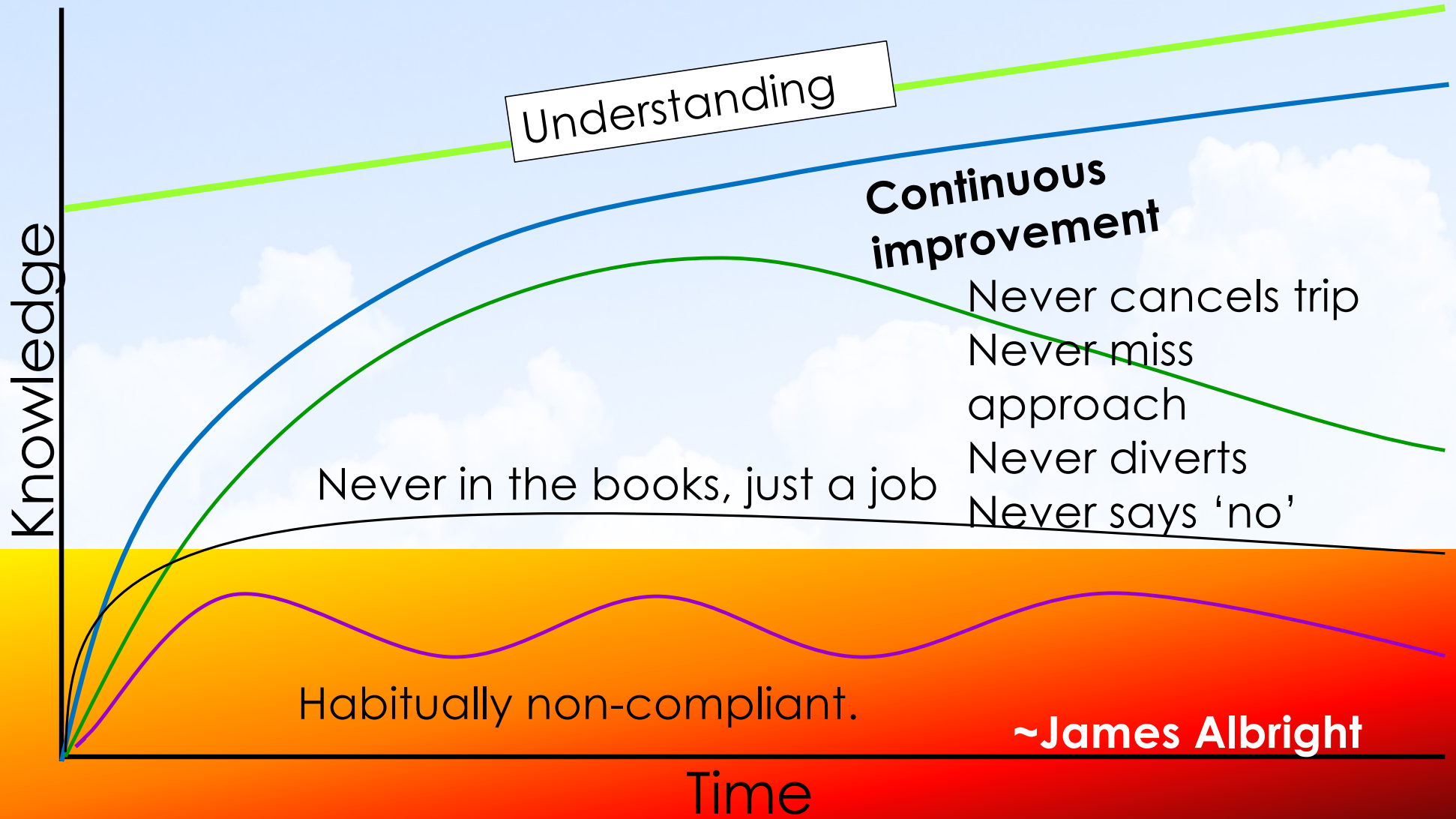
TALENT

10 things that require ZERO talent:

1. Being on time.
2. Work Ethic.
3. Effort.
4. Body Language.
5. Energy.
6. Attitude.
7. Passion.
8. Being Coachable.
9. Doing Extra.
10. Being Prepared.

Aim
High!





What's the level of
Effort
revealed in your
organization?

EXPECTATION OF EXCELLENCE

- Work Ethic
- ***EFFORT***
- Energy
- Passion
- Preparation
- Being Coachable
- Attitude
- ***STANDARDIZATION***

**Don't Think You Can Get Better?
There's Always Another Gear.**

EFFORT

Excellence is never beyond the grasp of those willing to put in the effort to reach for it.

It takes an organizational culture whose standard encourages & rewards continuous improvement.

Story #5

The Final 2:43!

Akron, OH
Nov 10, 2015
9 fatalities



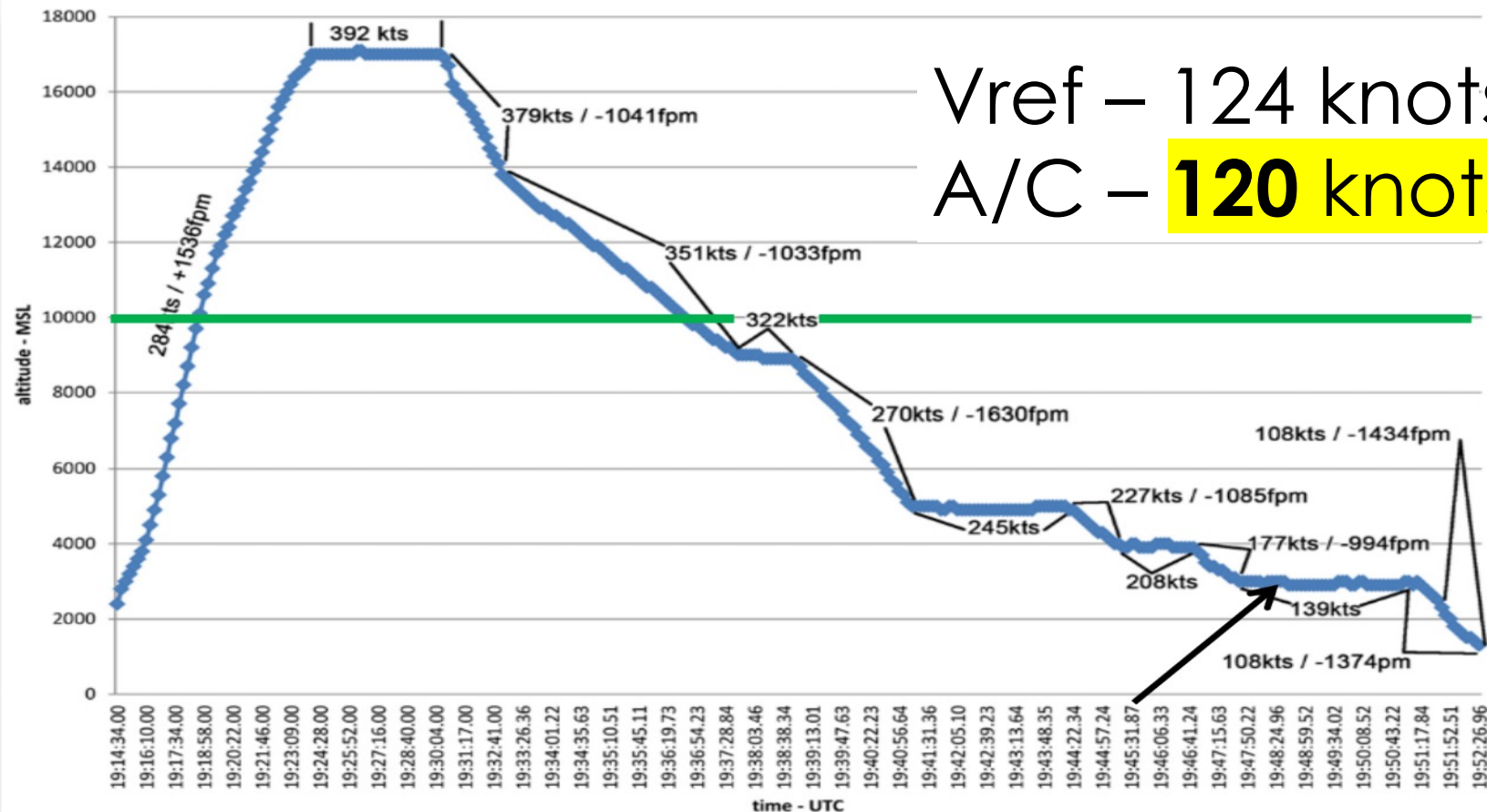
Radar Data

Beechcraft

Cessna

Hawker

TEXTRON AVIATION



Vref – 124 knots
A/C – **120** knots

CVR – Speed

Beechcraft



Hawker

TEXTRON AVIATION

- 14:48:44 CAP “You need to (look). You need to. I mean we were-we were flying like (one thirty nine). Nine degrees pitch up
- 14:49:41 CAP “Look you’re going one twenty. You can’t keep decreasing your speed.”
- 14:49:56 CAP “That’s what I’m saying. If you keep decreasing your speed.”
- 14:50:00 FO “But why?”
- 14:50:02 CAP “Because we gonna stall. I don’t want to sta—.”
- 14:50:03 FO “How do you”
- 14:50:05 CAP “(but in) IMC”
- 14:50:12 CAP “Alright. After Akron. We are down to”
- 14:50:16 FO “Minimums”
- 14:50:17 CAP “Fifteen hundred”
- 14:50:21 ATC – Change to advisory frequency
- 14:50:38 CAP – Makes call on advisory frequency
- 14:50:53 91S – “Hey guys. Ah we just landed on the loc. And uh broke out right at minimums (right at a) mile.”

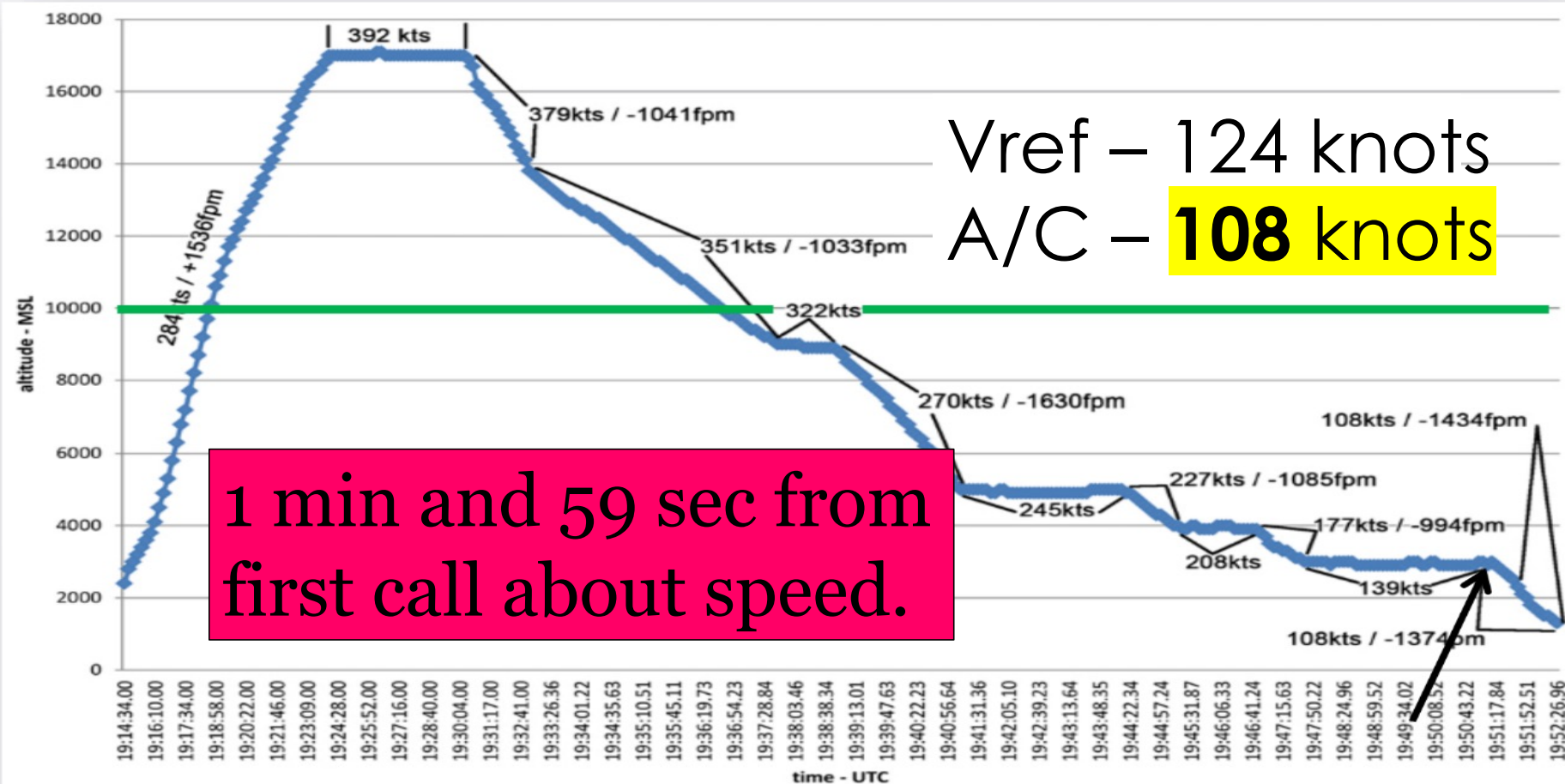
Radar Data

Beechcraft

Cessna

Hawker

TEXTRON AVIATION



108 kts = 16 kts slow
1434 fpm @ 1500 ft. AGL
IMC
40 seconds from impact

CVR – Descent Rate



- 14:51:00 FO “(four) miles. Full flaps.”
- 14:51:25 CAP “*** speed ***.”
- 14:51:31 FO “Alright we go to minimums.”
- 14:51:36 FO “Can you check. Can you check (if I got) (everything). (ignition)”
- 14:51:56 CAP “On localizer. You’re diving. You’re diving. Don’t dive. Two thousand feet per minute buddy”
- 14:52:01 FO “Yeah”
- 14:52:02 CAP “Two thousand feet per minu– don’t go two thousand feet per minute.”
- 14:51:10 CAP “When you are fifteen hundred feet above the ground. Or minimums”

37 sec

CVR – The End

Beechcraft



Hawker

TEXTRON AVIATION

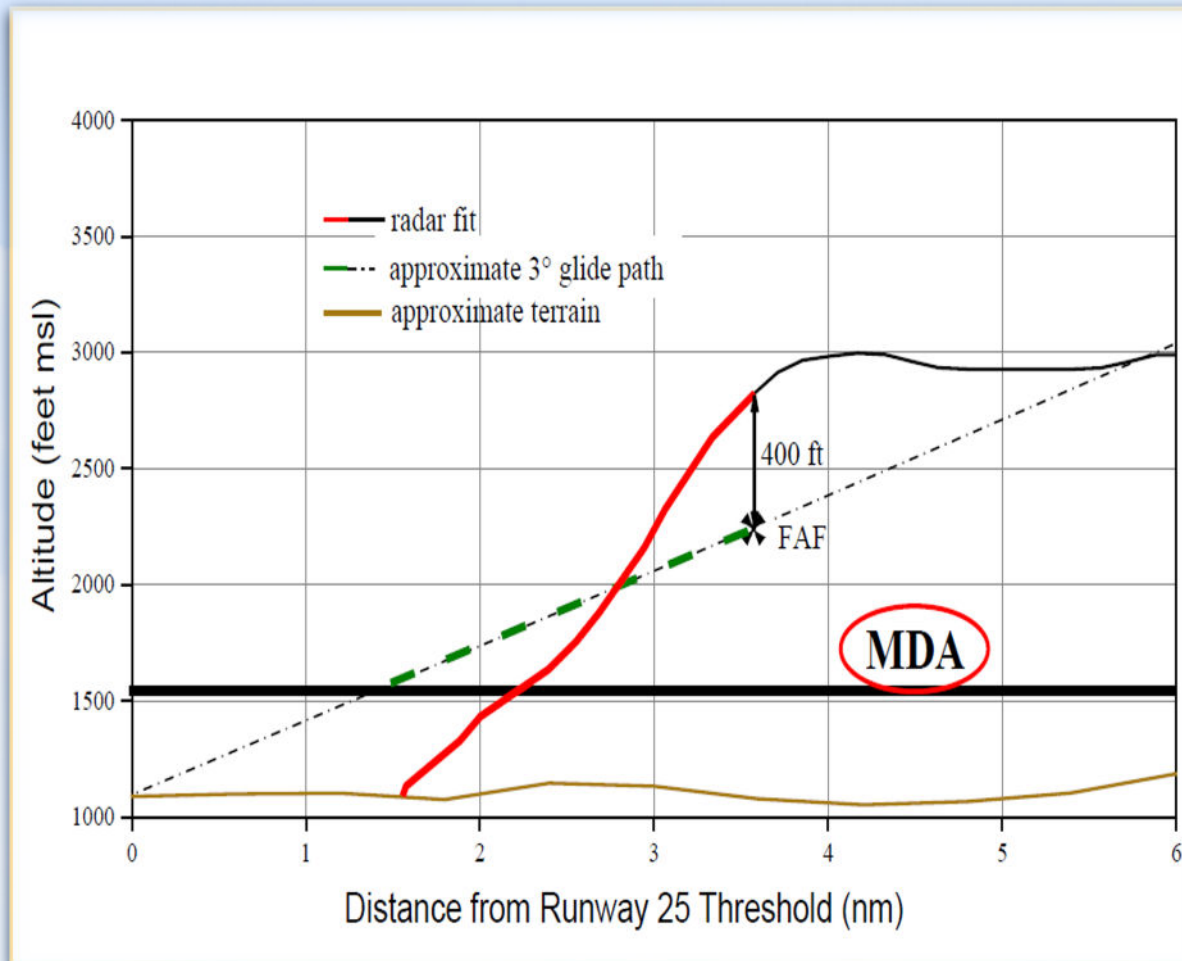
IMPOSSIBLE!!!

- 14:52:27 CAP "Okay level off guy."
- 14:52:27 CAM [sound of rattle similar to stick shaker]
- 14:52:28 FO "Got it"
- 14:52:30 CAM [sound of rattle similar to stick shaker]
- 14:52:31 CAP "Oh #. Focus"
- 14:52:32 GPWS "Pull up"
- 14:52:34 Sound of thunk, similar to impact

7 sec

2 minutes and 43 seconds after Captain's first
'warning' about speed.

At no point was the aircraft stabilized on approach.



Summary

Beechcraft

Cessna

Hawker

TEXTRON AVIATION

- 10,552 hour crew
- 1,502 hours in type
- Weather within limits
- Functioning aircraft
- Daytime

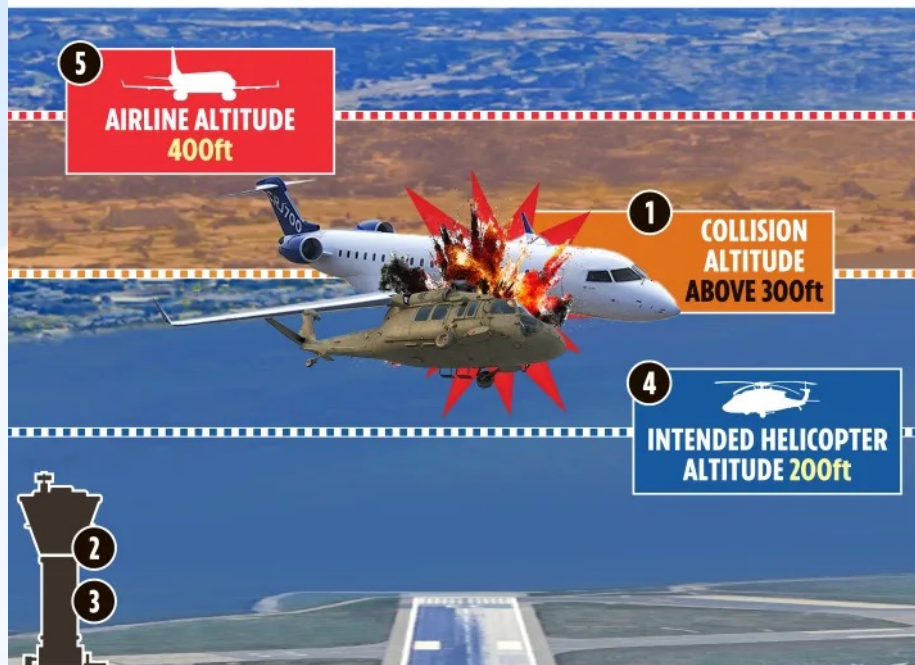


**Compliance
Minimum Standards
Illusion of Comfort
Culture
Accountability
Knowledge
Understanding
WHY?**

Can this happen in your organization?

DC CRASH 'ERRORS'

A series of blunders could have led to the deadly plane crash that left 67 dead

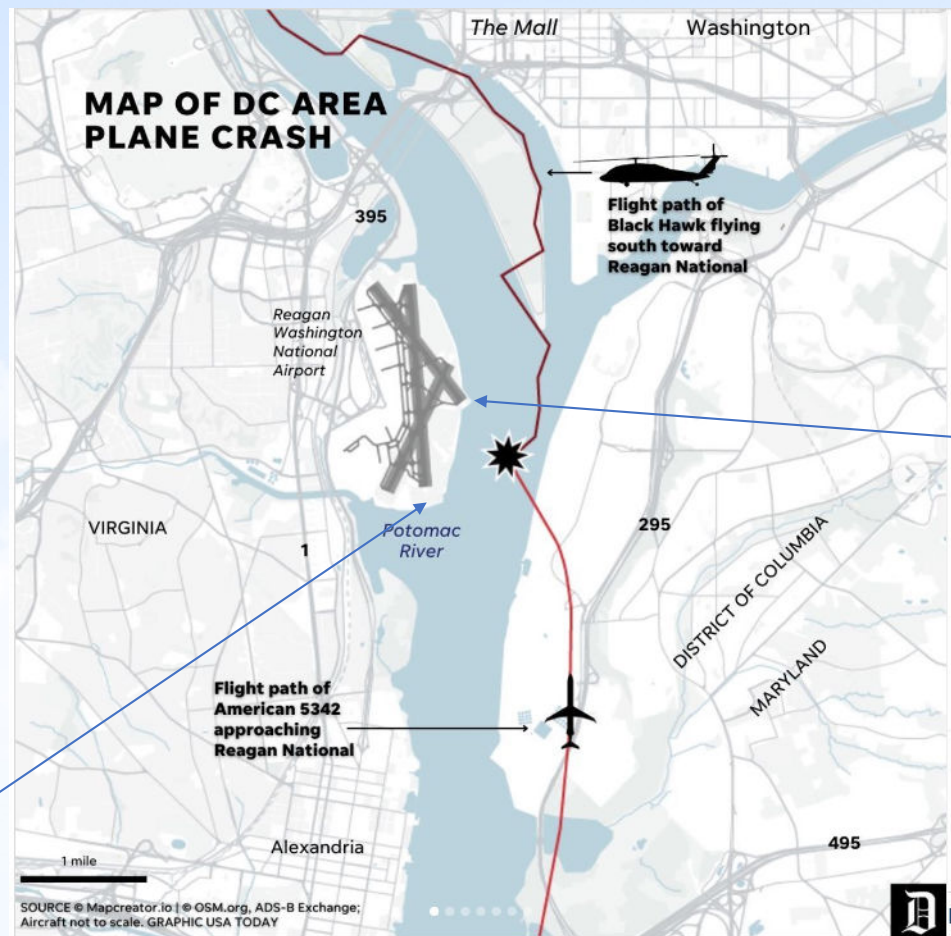


Jan 29, 2025

Was this good enough?

- 1 Black Hawk helicopter was 'on the wrong flight path flying 100ft above its intended route'
- 2 Air traffic control tower was reportedly understaffed with one worker guiding the plane and chopper instead of two
- 3 Air traffic control 'gave unclear instructions' to the Black Hawk pilots on how to pass the incoming plane
- 4 Chopper crew may have mistaken the American Airlines jet for another smaller plane further away
- 5 Airline pilots coming into land at one of the busiest runways in the US faced with 'helicopter alley'

MAP OF DC AREA PLANE CRASH



**RWY 01
7169'**

**RWY 33
5204'**

Take Aways

1. The **clock** has started. ***Take a deep dive!*** Make the time.
Failures are closer than they appear.
2. Master the basics. No short cuts. Be accountable.
Don't let mistakes pivot to failures. ***Fix NOW!***
3. You have another gear. Use it. 3 Goats.
Takes ***EFFORT***... not Talent.
4. Good enough isn't. Raise the bar. ***Normalize excellence.***
Set & demand HIGH STANDARDS!
5. It's hard. Not a one and done. Must be sustainable.