

Get-There-itis: When Inadequate Goal Commitment Impairs Operational Safety

Human Factors, Cargolux

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Conceptual Approach to Get-There-itis (GTI)

The General Aviation (GA) Safety Perspective

Case Study

Coping Strategies

Concluding Remarks

Conceptual Approach to GTI

Conceptual Definition

Synonym of 'Plan Continuation Bias/Error'

- Failure to recognize that one's original plan of action is no longer appropriate for a changing situation or for a situation that is different than anticipated

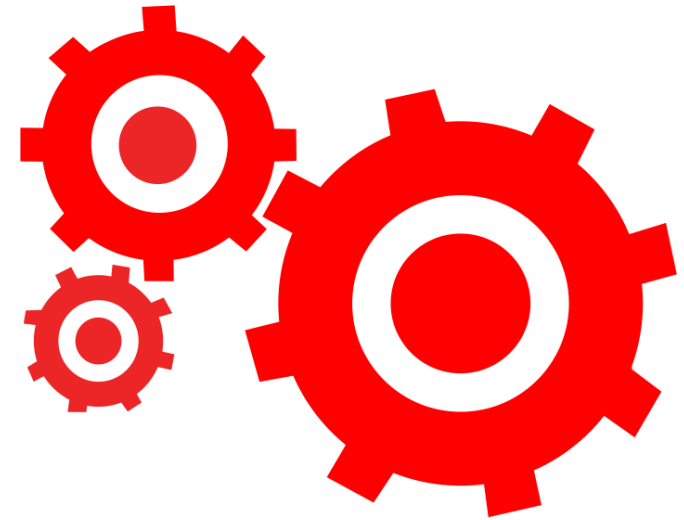


Conceptual Approach to GTI

Underlying Psychological Mechanisms

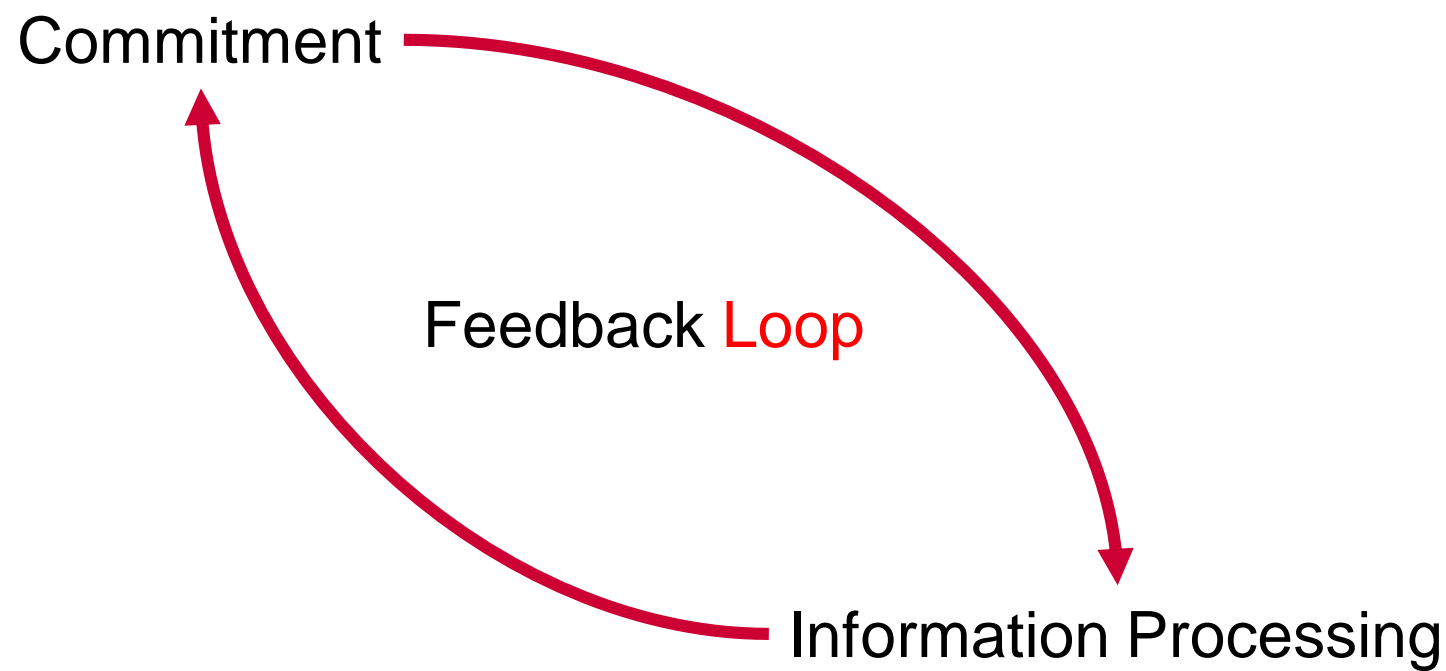
GTI has roots in...

- **‘Commitment Bias’**: tendency towards spending great effort to remain consistent with one’s prior commitments, actions, thoughts and dispositions, even when it is against one’s own interest
- **‘Confirmation Bias’**: tendency to gather evidence that confirms pre-existing expectations, by emphasizing or pursuing supporting evidence while dismissing or failing to seek contradictory evidence



Conceptual Approach to GTI

Underlying Psychological Mechanisms



Conceptual Approach to GTI

Translation to Aviation

Being committed to- and focusing on the completion of their initial plan may render pilots unable to recognize that it is no longer appropriate for a developing situation/a situation that differs from what was expected



Conceptual Approach to GTI

Risk Factors

Personal dispositions:

- Personal ego/overconfidence
- General goal orientation

Social pressures:

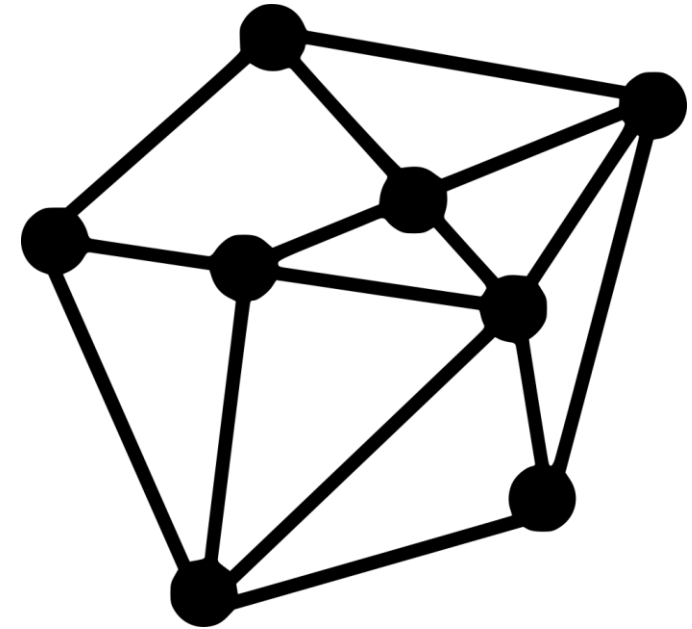
- Personal commitments/appointments
- Feelings of embarrassment or 'loss of face'

Situational factors:

- Excessive commitment to task completion
- Insufficient awareness of one's own/the plane's limitations
- Stress and/or Fatigue
- Mental workload & task demands
- Loss of situational awareness
- Progression through flight phases

...

- May contribute independently or in **combination**...
- Can be **externally imposed** or **self-generated**!



Potential Consequences of GTI

Why is GTI such an important topic?

Potentially **deadly** manifestations for GA pilots:

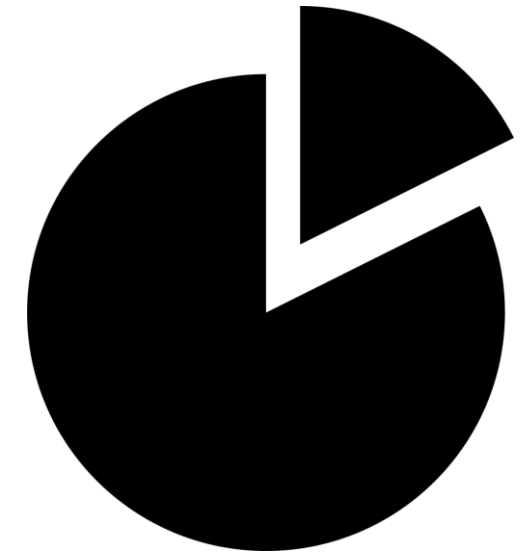
- Conducting one/multiple approach(es) despite unsafe weather conditions
- 'Racing' weather conditions to a destination
- Failing to:
 - Abide by aircraft performance limits
 - Go-around from an unstabilized approach
 - Plan for a go-around or diversion
- ...



The GA Safety Perspective

Potential Consequences of GTI

- BEA (France): GTI accounted for **41.5%** of fatal accidents involving GA pilots flying under VFR between 1991 & 1996
- CAA (UK) identified GTI as a causal factor in:
 - **27%** of fatal GA LOC VMC accidents
 - **38%** of fatal GA LOC IMC accidents
 - **47%** of fatal GA CFIT accidents
 - Between 1985 & 1994



Case Study: JFK Jr.

General Introduction (1)

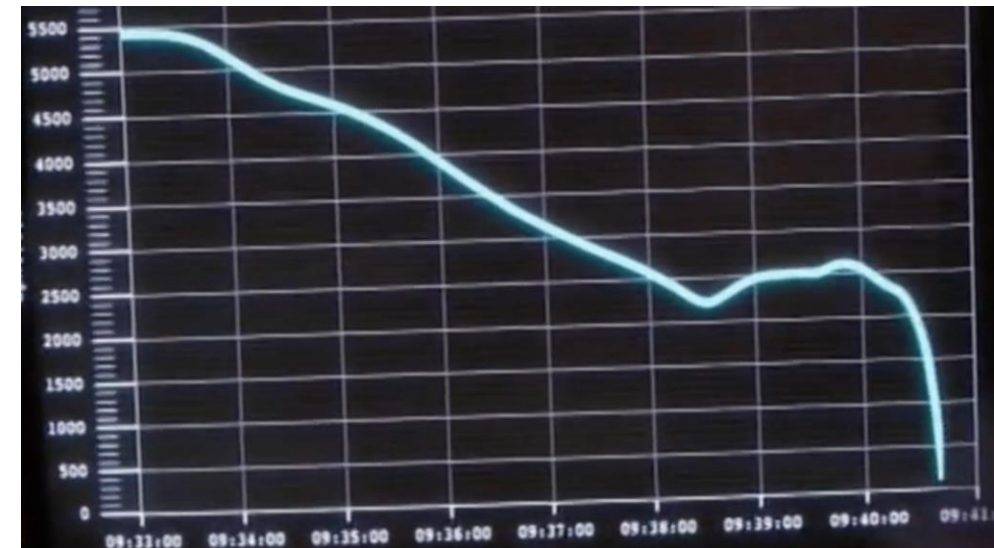
- 16th of July 1999: Kennedy took off from Essex County Airport in Caldwell, NJ in his Piper Saratoga @ 8:39 p.m.
- Accompanied by his wife and sister-in-law
- Destination: Hyannis Port, MA stop @ Martha's Vineyard, MA



Case Study: JFK Jr.

General Introduction (2)

- Crashed into the Atlantic Ocean 7 ½ miles short from Martha's Vineyard an hour later @ 9:41 p.m. killing all 3 of the plane's occupants
- NTSB concluded on a failure to maintain control of the aircraft during a descent over water at night as a result of spatial disorientation



Case Study: JFK Jr.

General Introduction (3)

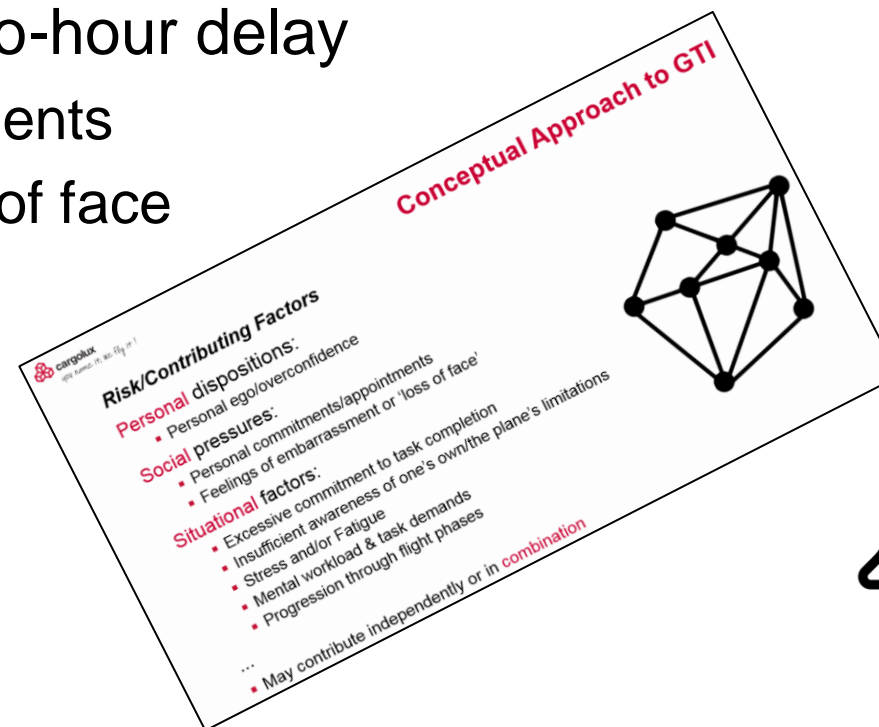
- NTSB's investigation revealed that the spatial disorientation was the result of Kennedy encountering **unexpected hazy weather in the dark** moments after clearing the coast of NY
- This effectively required him to fly the airplane under **IMC**, for which he was **not sufficiently trained** yet, leading to the crash
- But **how** did Kennedy get into this situation in the first place?

GTI?

Risk Factors for GTI (1)

A. Kennedy was flying to his cousin's **wedding** at which he was scheduled to **represent** his side of the family, had **promised** his sister-in-law to drop her off @ Martha's Vineyard, and likely felt he was running the **clock** since he took off with a two-hour delay

- ✓ Personal commitments/appointments
- ✓ Feelings of embarrassment/loss of face
- ✓ Stress



Case Study: JFK Jr.

Risk Factors for GTI (2)

- B.** He was **familiar** with the route and **declined** a proposal from one of his instructors to join him on the flight despite having **less than 10 hours** flying the Saratoga solo at night
- ✓ Personal ego/overconfidence
 - ✓ Insufficient awareness of his own limitations



Risk Factors for GTI (3)

- C.** He encountered challenging **weather** conditions for which he was not prepared while being only a **few miles away** from his first **destination**
- ✓ Mental workload & task demands
 - ✓ Progression through flight phases
 - ✓ Loss of situational awareness



Consequences of GTI

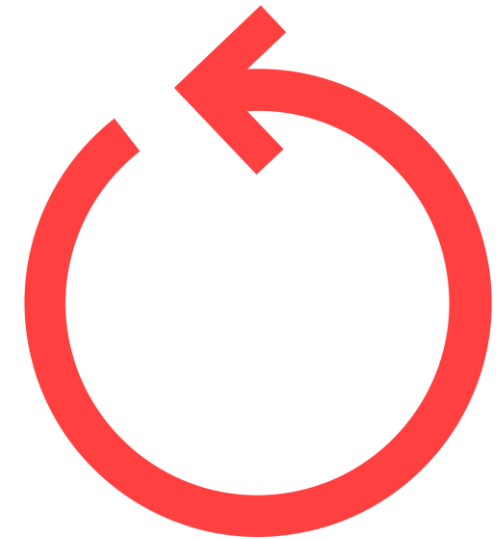
A **combination** of these factors resulted in Kennedy falling victim to **plan continuation bias/error** (or GTI) on **multiple occasions**, effectively failing to:

1. Recognize that his **qualifications** were doubtful for the flight he had planned, regardless of weather conditions
2. Check the current **weather** before takeoff
3. Accept his instructor's **proposal to assist** him with the flight
4. Make any kind of radio **contact**; file a flight plan or request flight following
5. **Alter his plans** in any way once he was faced with unfavorable weather conditions in flight

Case Study: JFK Jr.

Return to our Conceptual Definition

- ✓ Due, in part, to several now well-established **risk factors**...
- ✓ Kennedy was highly **committed** to his original **plan**...
- ✓ failed to seek and dismissed **evidence** that was **contradictory** to his existing **expectations**...
- ✓ primed himself to **not recognize** that his original **plan** was **no longer appropriate** for a situation that turned out to be **different** from what he had **expected**...
- ✓ which eventually led to a **crash** that took 3 lives, including his own.

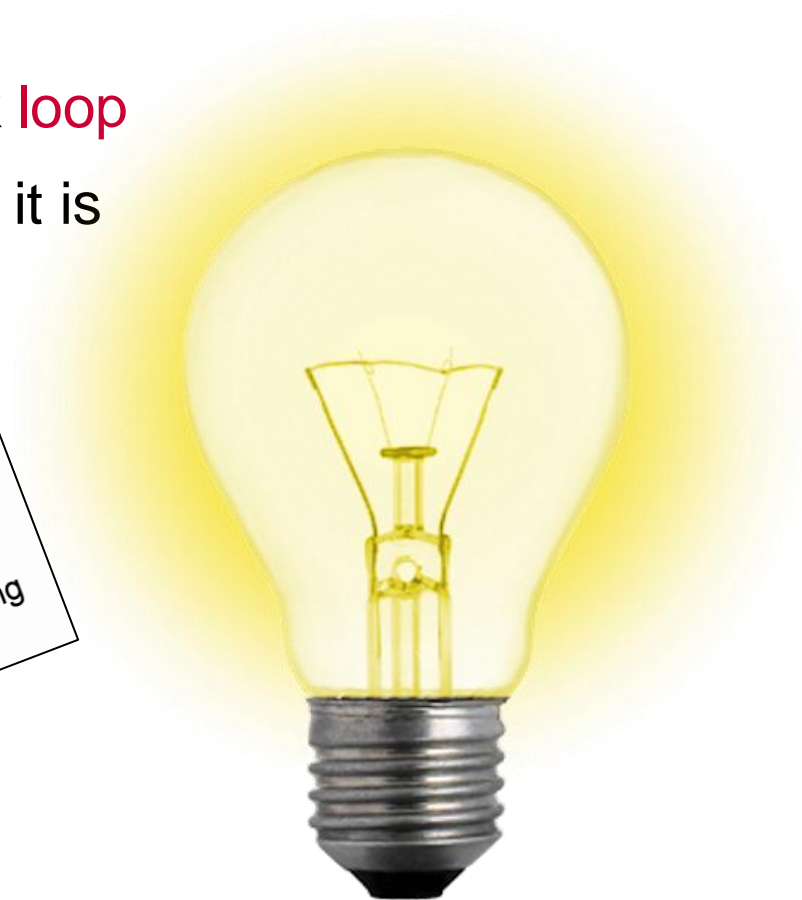
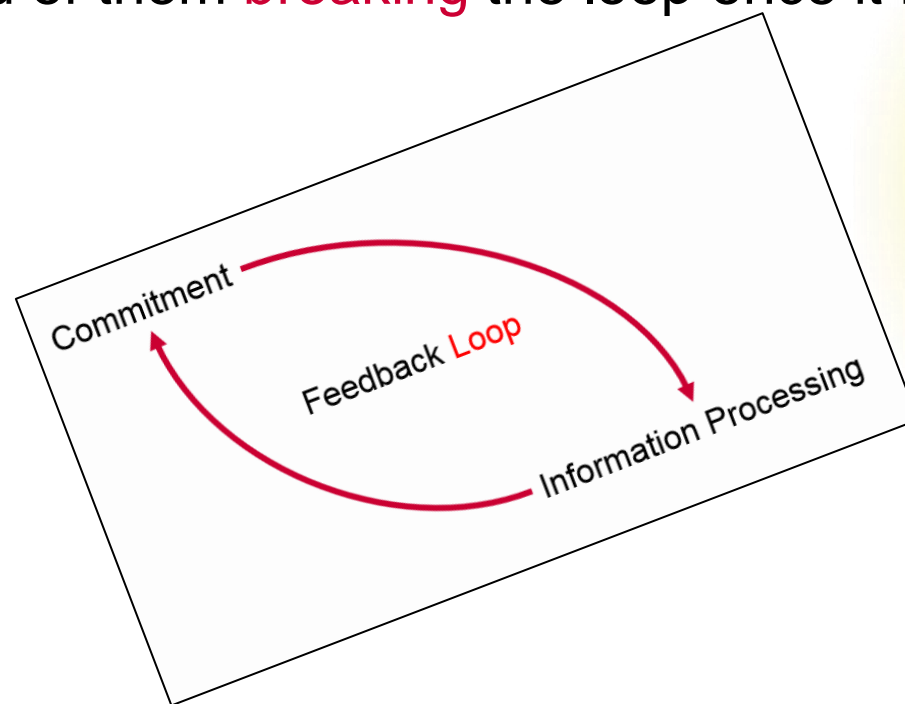


Coping Strategies

Goal

Two-fold...

- **Decrease** the likelihood of pilots **entering** the feedback **loop**
- **Increase** the likelihood of them **breaking** the loop once it is established



Coping Strategies

Flight Training and Culture

As first ramparts against GTI...

- **Commit** to safety as a priority and **act accordingly**
- Aim to make pilots **mindful** of the dangers of letting their commitments/personal circumstances influence their decisions
- Teach pilots to think in terms of “**What if?**” and “**Why?**”
- Equip pilots with **tools** that support these processes



Preventing the Loop – PAVE

Perceiving Hazards prior to flight : PAVE Checklist

P	Pilot-in-Command	Am I ready? Experience, recency, currency, physical and emotional condition
A	Aircraft	What are the aircraft's limitations for the flight? Appropriate, familiar, equipped, runways, load, altitudes, fuel capacity and quantity
V	enVironment	What does/will the environment look like? Weather, terrain, airport, airspace, day/nighttime
E	External Pressures	Am I under pressure to complete this flight? Commitments, displays of proficiency, avoiding embarrassment, personal goals

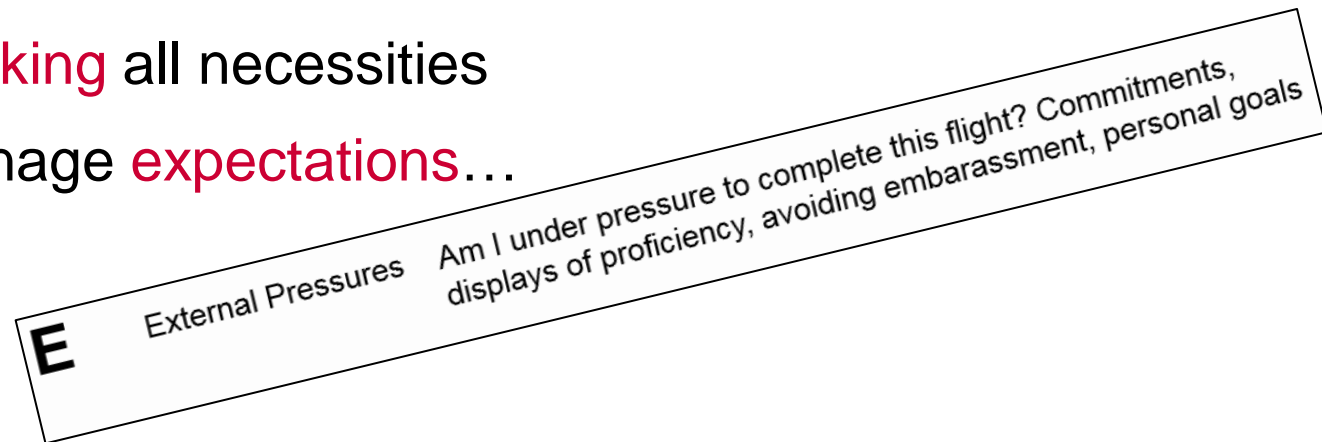
Preventing the Loop – Managing External Pressures

How to?

- Include **time** for extra fuel stops and diversions in original flight plan
- Formulate **alternate** plans in case of late arrival or make **backup** arrangements
- **Advise** others that arrival may be delayed and **notify** when delays are encountered
- Eliminate **urge** to get home by **packing** all necessities

Be **ready for** and **accept** delays, manage **expectations**...

Avoid **self-generated** pressures!

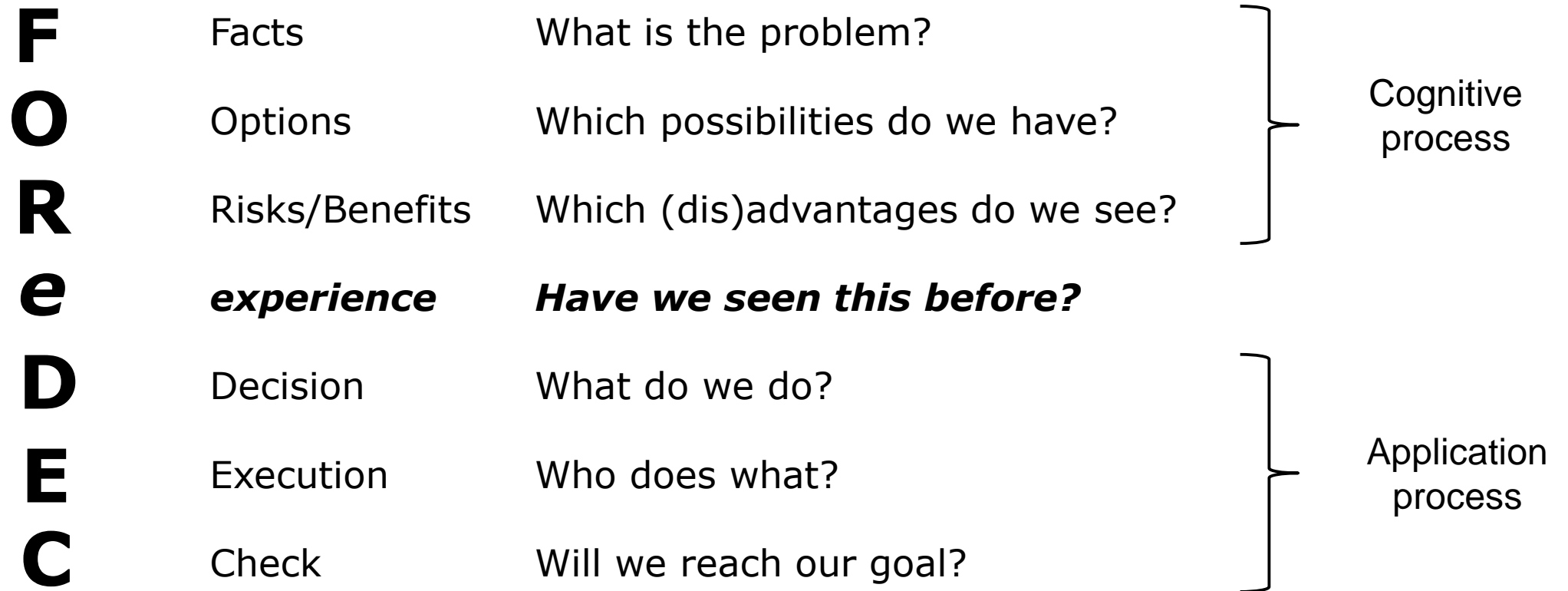


Breaking the Loop – Decision-Making Tool (1)

F O R e D E C



Breaking the Loop – Decision-Making Tool (2)



Coping Strategies

Tools – FOReDEC (3)

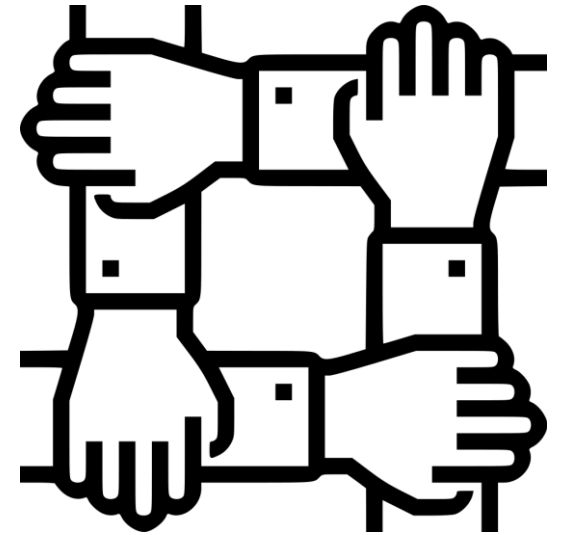
Adequacy of FOReDEC?

- **Conscious** and **collaborative** solution to an **unconscious** and **solitary** problem...
- Yes but...

Systematically involve a **conversation partner** from the **start**!

- ATC
- Flight Club peers
- Passenger(s)

Requires **systemic integration** from both flight training and culture!



What do Integration & Commitment Look Like?



Summary

GTI...

- is a **well-identified** psychological phenomenon, however **insidious** it may be
- consists of a **feedback loop** between commitment and information processing
- constitutes a substantial **threat** to GA safety
- can be combatted with the help of well-established **coping strategies** that aim to **prevent** the loop from happening/to **break** it



There is **no reason** for **GTI** to continue **claiming pilots' lives**



Thank You!

Any questions?

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References and Further Reading

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