

Chapter 1



"Welcome to *G. Heart* Country"¹

Words one: "Thanks for the journey!" This is a tip of the hat, better: A Hand Salute to everyone of you all to show my appreciation for the best course and most fun I have had teaching in my career(s). This was The class, The Lieutenants, The most fun learning I have ever enjoyed.

Words two: This review will reflect a sample of ~8960 hours of FOI classroom, and ~2112 hours of simulator teaching/training...not everyone will see their smiling face or get quoted in this 'thank you' book and that is my fault; however, that it not the task (performance objective) as listed on page 4.

¹ **DISCLAIMER:** Always have to do this when dealing with certain entities but my Attorney at Law has reviewed this document for the legal use of my pictures, my text, and my journey in the writing and distribution of this document. To whit, it is not for sale and will not be sold. It will be published on my Web site. To whit, this document has made the attempt to cover up and mask the commercial companies involved so as to show no proprietary information was involved. These companies had nothing to do with this project and get no credit for what was done in the classes...more legalese to go into my court filed document if necessary.

Words three: *If I had my way about it I would have kept better history of our activities and recorded the events, students, and achievements so that everyone would have scores, progress, awards, and pithy collection of successful remarks plus a full page of your picture.*

But, I didn't save or record everything. "Sorry 'bout that."

Pilot Upgrade to Instructor: General background explanatory comments

This Air Force active duty assignment, to be trained as an Instructor Pilot (IP), was contracted to a civilian training company to administer the academic ground school and the simulator segment before the Air Force "school house" completed the end of course requirements with more ground school, flying, and check flight. The IP candidates going through the first part in G. Heart Country were a proud bunch of guys as they knew flying all over the world in a Learjet was a "peach of a job," very enjoyable, and a envied flying assignment. We were all proud of the task ahead of us: stepping to the jet and logging instructor pilot time.

The pilots were all current in the airplane (the C-21A is a military version of the civilian version Learjet 35A) and had been to the training facility for 'initial' training some time prior to returning for IP Upgrade. These same pilots would also have attended classes for Refresher Training periodically so every three weeks we would have a number of Initial, Refresher, and Upgrade pilots in the building. As room GHC was on the way down the hall to the C-21A simulator – which ran 23.5 hours a day – the other 'students' between classes or sim periods would occasionally stick their heads (or finger) into our class room and banter with the new (and prior qualified) IP candidates in my classroom. *These were fun times!*

Early in the program there were about 80 C-21As in the inventory and based at about a dozen bases in the US, Japan, and Germany. The community of pilots flying the C-21A numbered at the most at around 400 and the assignment lasted from two to three years before they moved on to another major weapon system. The assignments caused the continuous training. Later on the Air National Guard picked up some of the mission which is, for the little business jet, to fly or transport key military officials 'to and fro & far and wide.'

The classes had between one (rare) and 10 (rarer) students in each class with an average of around four. We met each morning at 08:00 and went eight straight periods of training each day and even held lunch in the classroom. We got our training done each day and the students had time to study, work out, or enjoy the many activities in the DFW complex.

The students brought to class their previous notes, Airplane Flight Manual (AFM or 'Dash 1'), computers (some were loaned from the company), and were given a Supplemental Information Guide which is technical data on the airplane and is known or called parenthetically "The Coloring Book."

Room GHC is the first class room in the north wing of the training center and is just down the hall from the coffee machines. I guess the room size is about 24 by 28 feet? Can't believe I spent as much time in it as I did and didn't measure it but will only add we had plenty of room for our five tables, three lockers, and six or seven chairs. We hung aircraft panel art on the east wall with

a movie screen and white board on the south wall. The southwest corner wall had a table with my six or so paper boxes full of folders, papers, and superb pedagogical paraphernalia. I hung 'my' pertinent, pithy, daily, prized, class material on this same wall as it could (should) not be seen by the rest of the world walking by my classroom...one had to be a "lieutenant" and have a set of orders to read and heed the "Word." This was the place where it all happened – or at least where the trek began in G. Heart Country.

The Syllabus, Student Studies, and Single-engine *VI CUTS*

The 40 hours of class room is designed to fulfill two areas of training: Systems Review and Fundamentals of Instruction (F.O. I.).

Systems: Power Plant, Fuel, Hydraulic, Electrical, Pneumatic/Pressurization, Anti-ice, Flight Controls, and Maneuvers.

FOI items: The Learning Process, Human Behavior, Effective Communications, Teaching Process and Methods, and Evaluation.

Tertiary items: Airmanship, Speaking Skills, Mishap Prevention, Leadership, and Error Management - under Crew Resource Management (CRM).

The students (MY "Lieutenants!") show up knowing or at least they have been told by their IP's what to expect in this class and they also know what is expected of them when they go on to the "school house" so they will be ready (yes, I know – past tense...) to do their best and maybe make the official award of Distinguished Graduate.

They also know there are unknown events and what really is coming both in the class and in the simulator - if they are so lucky enough to fly with me (my tout and brag – it will be fun...). The reason I say this is sometimes the learning does not get passed on from one IP to another IP candidate as they say something like "Oh, you'll be alright. All you have to do is fly the jet." Sometimes this works and sometimes it doesn't.

I will...note: now I know why I am not in past tense. These pages are setting up the reader to see what the class is all about and then I'll get into the past by telling what we did. This will enable a person who has not attended the class have a feel for what it is to show up for the course, meaning I have not told a graduate (past student reading this now) anything he does not know and probably has already been through everything I have said so far.

Maybe.

Most classes will get the first hour and half lecture (there are not many lectures in my class) on what to expect in the course and the simulator along with impromptu standup speeches, ad hoc planning, special movies, pop quizzes, one minute speeches, 'what's in the box?' and "Ok lieutenant, I'm Gonna Kill You" (OKLIGKY) – noting if they **stay 16 miles ahead of the jet**, I can't touch them...along with each take off will be a V1 Cut, and before you land the other engine will fail, meaning you can't land my jet with the engines running; smoke and fumes exercise, cross cockpit flying, one engine, and flown to limits. All steep turns will be at 200 feet

above the ground; and yes, I do have a sanctioned and AF “TERPS²” approved “G. Heart One” – departure(s) and arrival(s) Titled “Mike Fox” and posted in Chapter 11.

We will work on self-esteem – for all of us – so we can break this down into me, and you, flying the jet. That’s it. As my Primer (class handout) says flying is all there is: FLY THE JET!

The problem will be for me to determine who you are, what you are, and what needs to be done in your training to meet the standards. All classes are different – course, this is my job. Nobody in the world looks forward to it more than me. Trust me on that...But you better not really trust me...more on this later. [They know this. I am going to get them. They know it and I know it...]

Day One: 08:00

A teacher must be mindful of everything he says in class. One sentence can change a person’s life: he should seek a positive change – the perfunctory should really be profundity (done merely as a duty should actually be marked by insight – at least be profound not abstruse³).

Does anyone ever remember the first words out of a teacher’s mouth? Will your students remember your first words? My guess is the first words should be only as important, better, more important, as the last words (which we all know is remembered easier).

I really could not say “Welcome to G. Heart Country” - because we are not there yet. Roll call, time hack, and weather check? No – we’ll do that later too. I promise you, in this class I will have just about **three seconds** to make my mark. The students are focused and their judgment is paused to put a number down from one to ten. What this means (of course, I had to learn this...) there is no way to bull shit through this class - even with the opening words. They will see through you/me/us like a book. “First impressions are hard to do over a second time...”

Watch this: talk about putting the yellow ball across the net! Let them swing at this!

“Let me ask you a question. You see on the screen the date, the class number, and the number of students so far. What year was the first class?”

Instructor Pilot Training

USAF C-21A

6 Aug 2009

Class 09 – 12

Class # 180 Students 749-750

Note: the tables are set up in the round – no pews in my freaking class.
The lights are bright – no sleeping in my class.

² TERPS – a FED acronym for *Terminal Instrument Procedures*.

³ Abstruse - difficult to understand: obscure.

The candle is lit – it smells like ‘romance’ in here.
The center piece is on its stool – what in the hell is that?

He just walked in with no flair, no greeting, no hello, no roll call, no nothing – except a question!

Without being witty, pedantic (not really), cute, or even forthcoming, the task is to engage the student because it is their class there is no passiveness in the agenda. You take a swing at the ball in your court. Put down your US Today and let’s talk about aeroplanes. The clock is running and we are burning daylight!

The I, I, I goes to *you, you, you* so that it becomes **we, we, we**.

Every one of us will step to the plate and take a swing. Every one of us will tee off on the first hole with a Driver – not a seven iron, a f’ing Driver! – we are going to hit some balls and right out of the chute and everyone is leaning in to play.

We will hit a lot of balls in this class. Some of them will be right down the fairway and some will be in the ruff. There will be some whiffed balls going about three inches but this is the fun in the class. We’ll get better. There is a good reason: *your student is gonna try to kill you in the jet...*

Instructor Motivation, Learning Outcomes, and Attitude toward Learning

Perfect “Zingers”⁴

“The dominate question and request of adult learners for anyone who instructs them is ‘*Can you really help me?*’ ” (p. 18).

“Anyone who instructs a particular group for a lengthy period of time eventually becomes **quite naked**. Our words and actions continuously strip away the camouflage of our announced degrees and experience to tell our learners whether what we know really makes a difference” (p. 19).

“*As instructors, we don’t want to make people fail*” (p. 26).

“They know from years of hard-earned experience that **you cannot take anyone from anywhere unless you start somewhere near where they are**” (p. 27).

“The more we mechanize and objectify the learning process, the more adult learners need to know we care about them as human beings. Hand in hand with this understanding is Saint-Exupéry’s (1943, p. 70) marvelous maxim ‘**What is essential is invisible to the eye.**’ There are so many important things that go on during instruction between an instructor and a learner that no single human sense, no global standardized test, no amazing electronic equipment will ever pick up. In some ways, I wish this were not so” (p. 27).

“*It is not possible to not communicate*” (p. 185).

⁴ Wlodkowski, Raymond J. (1985). *Enhancing adult motivation to learn*. San Francisco, CA: Jossey-Bass.

“Many people have written that instruction is a science. Some have argued it is an art. Others have said it is a craft or an intuitive skill. I am not completely sure. But this I know. When it is motivating, when there is a flow of learning and communication between instructor and learner, it is much more than all have been written or said it was. It is a dimension. Not something one practices or performs, but something one enters and lives” (p. 291).

“One cannot not explain things to unfriendly people” (Sigmund Freud).

“Piaget says, ‘people are self-motivated to adapt to the environment’...The essential functional need that motivates us is cognitive disequilibrium, which is the tension we feel when we experience something that does not fit what we already know. This tension causes us to involve ourselves with the new experience until we can understand or ‘fit’ it into our repertoire of possessed knowledge and skill...Adults are experienced purposive learners...

The guiding question for us is how can we bring to our learners information or processes that are different, novel, contrasting, or discrepant from what they already know or have experienced? This is what makes learning fascinating” (pp. 167-168).

[Note to reader: Let’s see how these ideas work out in **G. Heart Country**...]

You only have three seconds! [This is a lie, you ‘may’ have two...]

When Lindbergh⁵ was teaching he said “I soon discovered that I was learning as much about flying as my students...But you’re never sure what a student is going to do...If you check his errors too quickly, he loses confidence in his ability to fly. If you let them go too long, he’ll crash you” (p. 279).

The full sentiment for this experience in this book should be read by every instructor. What else did he say about passing on the wisdom you have gained in flying “when the engine quits”?

Next week you will have three sim periods. If you are lucky you will get to fly with me. I will tell you right now you will have only three seconds to react to an engine failure on takeoff. Of course, this is called a V1 cut. (This was the first thing they did in the first aeroplane with two motors. They failed one to see if it would still fly.)

At V₁ or “GO” one engine comes to idle to simulate loss of power. The pilot flying the airplane (PF) must identify the loss, then for **Engine Failure During Take-off After V1**:

1. **Maintain Directional Control** - rudder and aileron as required
2. **Accelerate to VR.**
3. **Rotate at VR.**
4. **Climb at V2**
5. **Gear Up** – at positive rate of climb
6. **Thrust Reversers – Off**

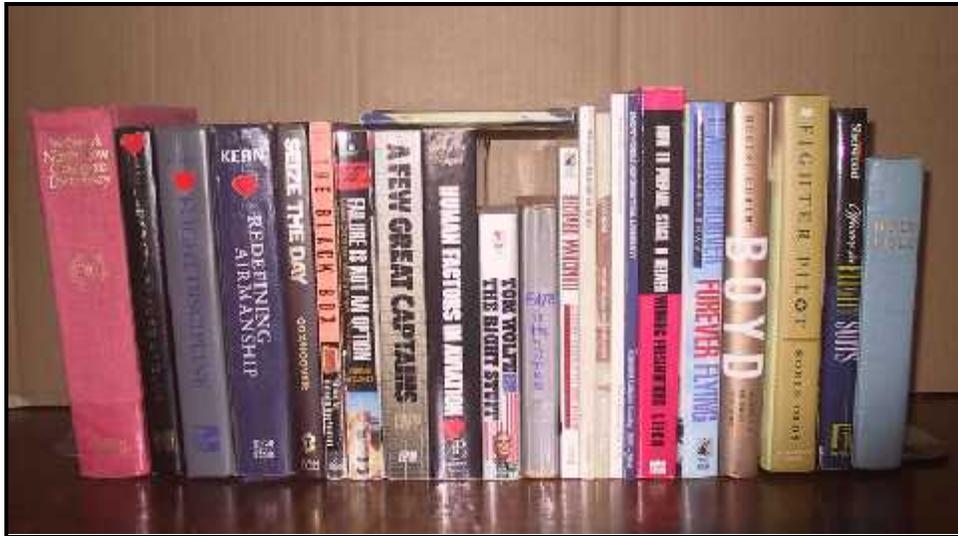
⁵ This note is from book number 50 on my Web site: www.gheart.net under New 100 Books.

7. Yaw dampener – Engaged

8. FUEL JTSN Switch – ON**

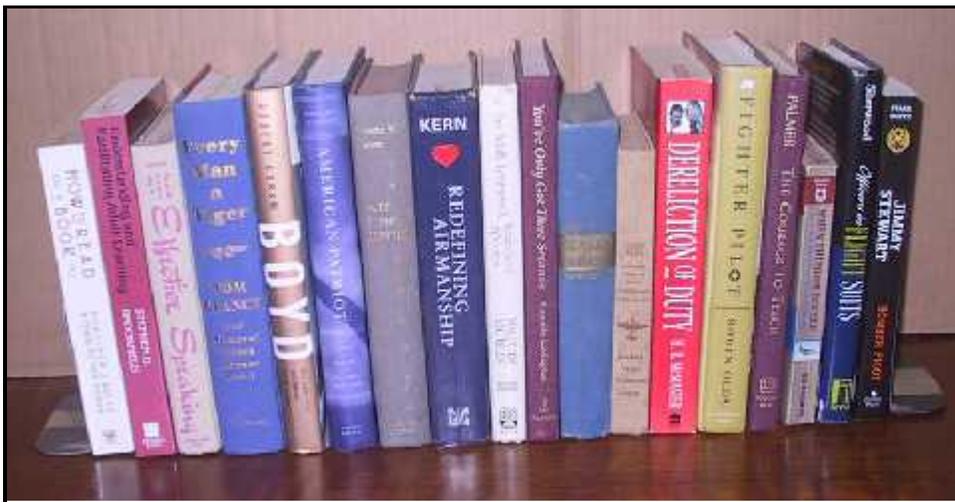
9. When Clear of Obstructions, Accelerate to V2 Plus 30 KIAS and Retract Flaps

** We will spend some time talking about why this step is almost right after Step 5.

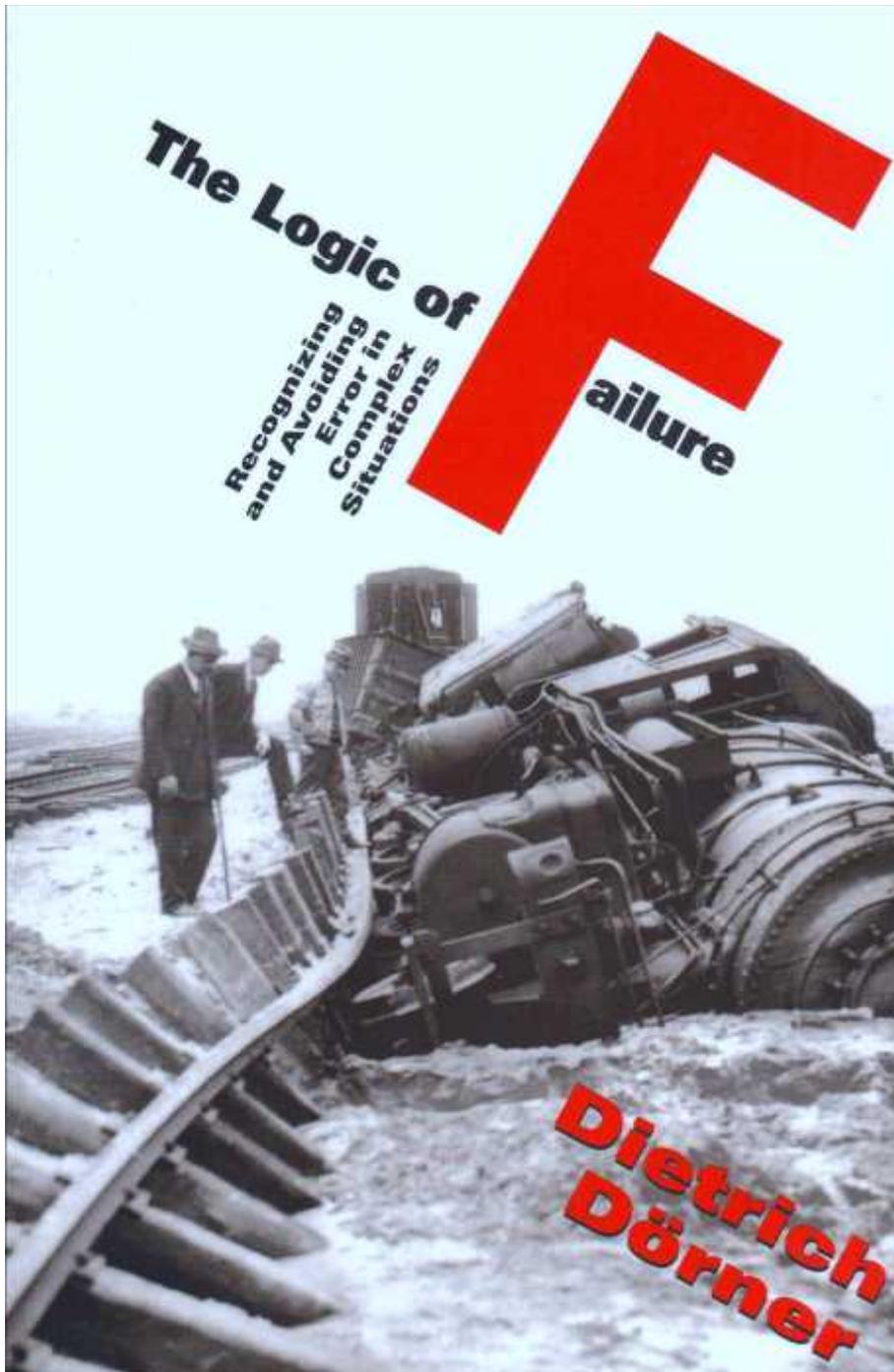


From the Alpha to the Omega

Spent some time with a quote here and there along with a few pages worth pasting in – especially Gann’s story of his Captain who kept lighting matches in his face. There are more, like Boyd!



A few more (some the same) but this list even gives you a lesson on How to Read a Book!



If we could back this train up maybe we could find out what caused it to crash. What questions would you ask and how far back would you have to push it to find out what started the “oops!”

“Failure does not strike like a bolt from the blue, it develops gradually according to its own logic” (p.10).

Henry Wadsworth Longfellow (1807-1882)

A PSALM OF LIFE

WHAT THE HEART OF THE YOUNG MAN SAID TO THE
PSALMIST

TELL me not, in mournful numbers,
Life is but an empty dream ! —
For the soul is dead that slumbers,
And things are not what they seem.

Life is real ! Life is earnest!
And the grave is not its goal ;
Dust thou art, to dust returnest,
Was not spoken of the soul.

Not enjoyment, and not sorrow,
Is our destined end or way ;
But to act, that each to-morrow
Find us farther than to-day.

Art is long, and Time is fleeting,
And our hearts, though stout and brave,
Still, like muffled drums, are beating
Funeral marches to the grave.

In the world's broad field of battle,
In the bivouac of Life,
Be not like dumb, driven cattle !
Be a hero in the strife !

Trust no Future, howe'er pleasant !
Let the dead Past bury its dead !
Act,— act in the living Present !
Heart within, and God o'erhead !

Lives of great men all remind us
We can make our lives sublime,
And, departing, leave behind us
Footprints on the sands of time ;

Footprints, that perhaps another,
Sailing o'er life's solemn main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again.

Let us, then, be up and doing,
With a heart for any fate ;
Still achieving, still pursuing,
Learn to labor and to wait.

The above poem was first published in the *Knickerbocker Magazine* in October 1838. It also appeared in Longfellow's first published collection *Voices in the Night*. It can be found, for example, in:

- Longfellow, Henry Wadsworth. *The Complete Poetical Works of Longfellow*. Boston: Houghton Mifflin Company, 1893.