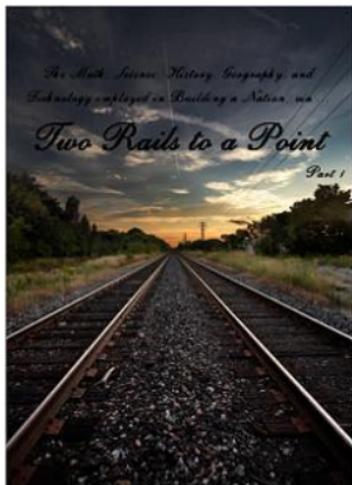




# *Ewing Kauffman*

*The Life and Times of a Remarkable Man*



an *auto* SOCRATIC PRESS publication  
Michael Lee Round

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*From Here to There*  
*Local History, told through Science and Poetry*



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# *Beyond Fishing*

**EWING KAUFFMAN:** *His Life and Times*



## **PHILANTHROPIC ENTREPRENEURISM**

### *An Introductory Limerick*

Ned was a man, with two kids and a wife;

And said to himself, “I have a good life”.

Each day I go down to the river for food;

And buy several fish, to be eaten or stewed!

One morning, Ned realized his money was gone;

The sun on the horizon! Quick! It is dawn!

Ned dashed to the river, and begged for a fish,

The fisherman looked, and granted the wish.

Ned blurted a “Thanks”, and started to run,

The old man’s voice echoed: ‘Just stop right there, son’.

“I’ve given you fish, because of your sorrow,

You’ve food for today, but what of tomorrow?”

No money, no food, Ned had lost his last job;

His family depending on him? He did sob.

His head drooped low, with tears in his eyes,

The old man now spoke: “Son, I’m not wise ...”

“I can give you a fish, and this day you’ll be fit,

But to end it right there is *not* philanthropic!

Dependent on me is how you’ll behave;

I have no desire to be master – or slave!”

“I’ll teach you to fish! You’ll eat for a life!

Each day you’ll have food for your kids and your wife!

We’ll start in the morning, I’ll teach you the tricks;

A lifetime of hunger, this problem we’ll fix!”

“Your kindness is something I cannot repay;

What can I do? Please tell me! Please say!”

“Learn to fish and teach others – three, maybe four;

That’s all that I ask – you’ll have settled the score.”

And so the years passed, many fish Ned had caught;  
And he paid the debt forward – many men he had taught.  
At times, he wondered where the old man had fled,  
Perhaps greener pastures, perhaps he was dead.

Until Ned saw the old man one day;  
Constructing a building, while looking quite gay!  
“How are you doing?”, Ned asked in a yell!  
“My gosh, you look great! You really look swell!”

“For years, I have fished. My father taught me.  
His father taught him, and his father taught he.  
As good as this sounds, it’s rather a bore;  
I don’t want to fish – I WANT A FISH STORE!”

“I wanted a business to call all my own!

And not have to repay a high-percent loan!

Though good schools abound, I found there were fewer ..

That teach how to be an entrepreneur!”

“Now that I have, I’m got my own sign:

**FRESH FISH! FRESH FISH! FRESH FISH! PLUS WINE!**

How can I fish and run a store, too?

The question is simple! The answer is you!”

“You’ve learned how to fish, and shown many more!

And from all that fish, I will stock my new store!

A handsome price, indeed, you’ll be paid!

Division of Labor, A Foundation is Laid.”

“For *all* of us really, to find our own way ...  
To earn a living, through work while it’s play!  
A system constructed on mutual trust;  
Individual rights, and doing what’s just!”

Excited, Ned asked, “Please tell me right now!”

“You lacked business sense?” “Yes, I lacked the “HOW”?”

“Where did you get this new education?”

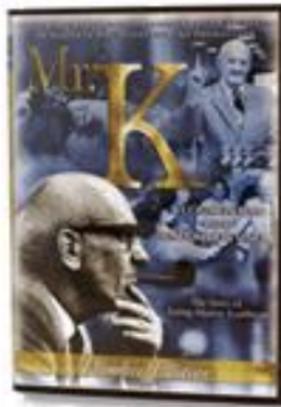
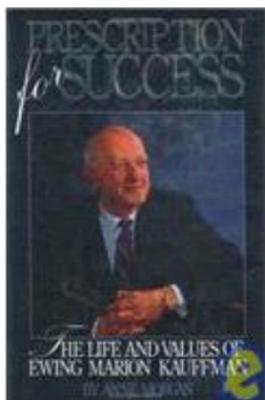
He answered with joy: “THE KAUFFMAN FOUNDATION!”



# EWING KAUFFMAN

## *His Life and Times*

Ewing Kauffman lived a remarkable life. To recount it here would not do justice to his memory. This book and DVD have done this, wonderfully:



### **PARTS II AND III**

However, there are two important topics to be covered in Parts II and III, I think shed a light not only on his life, and not only on “The Secret of *HIS* Success”, but more importantly, on “The Secret *OF* Success”, in business as well as in life!

# *“A Calculated Risk”*

## THE SECRET OF HIS SUCCESS



**JIMMY DOOLITTLE**

His actions helped win World War II.

You know the story of the famous Doolittle Raid. It followed the devastating attack on Pearl Harbor, on that day that “will live in infamy”: December 7, 1941.

Following the attack on our Pacific fleet, the Japanese sought a campaign of conquest in Southeast Asia along the

Pacific coast. Months of losses – U.S. losses – sank morale. What could be done to counter these losses? To boost morale? To put the Japanese on notice *they* were vulnerable? Attack Japan?



“Thirty Seconds Over Tokyo”. A story of strategic brilliance! Of courage. Of hard choices. And Chinese alliances – and cruelty, as they protected our downed airmen.

But when I said his actions helped with World War II, I was *not* referring to the Doolittle Raid! Instead, I’d like to talk about his role as a Vice President of Shell Oil several years *before* Pearl Harbor!

He recommended high octane aviation fuel – *avgas* – become the standard fuel for military aviation.

Who *was* Jimmy Doolittle, and why was this important?

## JIMMY DOOLITTLE

### A Brief Biography

He was born on December 14, 1896, in California, lived for a time in Alaska before returning to California, living in Los Angeles.

The new century brought in the Airplane. The Wright Brothers. Flight.

And at the age of 13, he attended the 1910 Los Angeles International Air Meet, what the LA Times then called “one of the greatest public events in the history of the West”.

It’s difficult for us living now to understand the significance of such an event. Arthur C. Clarke, in writing the book “3001”, talked of humans being transformed a thousand years into the future, and wondered if the 20th-century man would be astonished –



*intellectually* – by what they found. He doubted it. Modern man is used to the radio, TV, the DVD, internet, cell phones, flight, transcontinental travel, space travel.

But the 19th century man transformed into the 20th? Yes. Everything – technologically – was new. But the 20th century man into *any* part of the future? He doubted it. There wouldn't be that great a paradigm shift, intellectually, whatever changed.

When Doolittle was born, of course, none of this was around, and most would not be around for more than half-a-century. The country was mesmerized by flight. An 11-day air-show! A quarter-of-a-million people in attendance!

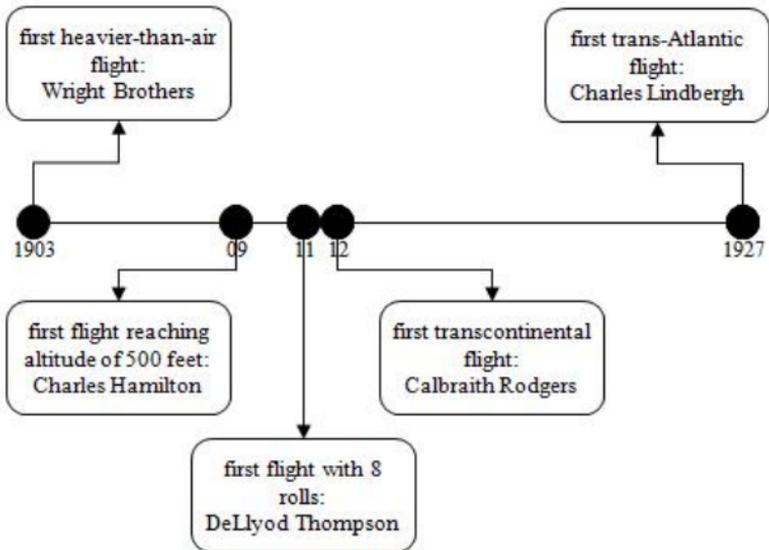
After graduating from high school, he studied engineering in college, before taking a leave to enlist in the Signal Corps Reserve as a flying cadet.

It was 1917. World War I was raging across Europe.

He became a flight instructor. A gunnery instructor.

After the “Great War” ended, he returned to complete his degree. And he continued to fly.

In an article I wrote titled “Johnson County – The Aviation Capital of the World”, I laid out – chronologically – “breakthroughs” in the aviation community.



**The Aviation Pavillion**  
 Aviation Park, Overland Park, KS

To this list, I'd like to add *three* more breakthroughs. Yes, Calbraith Rodgers was the first to make a transcontinental flight, but his flight took 49 days! In fact, the quest was in response to a challenge by published William Randolph Hearst to make it across the country in less than 30 days!

In September 1922, Doolittle became the first to fly across the country in less than one day – 2,163 miles in a total elapsed time of 22 hours, 30 minutes.

DeLlyod Thompson was the first to perform 8 rolls. Stunts were inevitable. Loops were exciting. “Inside” loops, that is, where the pilot is on the inside of the circle, like a car performing a loop on a roller-coaster ride. But an “outside” loop, where the pilot is facing out? Unheard of. Undone.

Doolittle did it – in 1927.

Doolittle set a speed record of 232 MPH in 1925.

Doolittle would break this record in 1932, reaching 296 MPH.

And after having won the three big air-racing trophies of the time, he officially retired from air-racing.

Remarkable.

Remember, after World War I, he returned to the States to get his degree. Not only was he a flight instructor and a gunnery instructor, before the war he was going to school as an engineer. After World War I, the army gave him two years to complete his Master's Degree in Aeronautics.

He enrolled in MIT, and completed the program in *one* year, becoming the first person in the United States to receive this degree. Having done this in one year, he spent his second year earning his Doctorate!

As a test pilot setting speed records and performing stunts, one of the things he realized was the inability of the pilot – perceptually – to keep up. It was easy to become disoriented, particularly as speeds increased – *and they would*, he knew. Further, weather conditions hampered one's ability to fly, as did the mere setting of the sun.

Again, we're use to 24 / 7 / 365 flying, a sky perpetually filled with blips. Pilots are able to set the instruments to automatic and let the computer take over.

There were no computers, of course, in the first half of the 20th century.

In fact, there were few instruments! Flight was done by sight. "Contact" flying.

Doolittle knew this was a problem. He also was in a unique position to do something about it, with his background of test pilot and Doctor of Science!

He designed many of the instruments that still exist today in the cockpit of an airplane.

Of course, not only did he design these, he was the first to fly – *takeoff, fly, and land* – by instruments alone!



He was in his mid-30s now, and had already accomplished a lifetime's worth of achievements! Retired from the racing-season, inactive militarily, he was now a Vice President at Shell Oil.

And he was still paying attention. And something caught his eye. One racer now was winning more than others. *Why?* Observing his engine, some noticed higher-compression pistons, and had them installed in their planes. The pistons in their planes, however, burned out.

*Why?*

Doolittle found out. It wasn't the pistons by themselves. It was the pistons *combined with a new type of fuel* – a high-octane fuel.

He knew more powerful fuel would be necessary as flight became more popular in the United States. And he knew a more powerful fuel would help military craft.

But the military was against it. Their thought was to have a single fuel during wartime to simplify supply problems in wartime.

And Shell Oil wasn't on board, either. It would cost millions and millions of dollars for Shell Oil to retool their machinery. Could he really make the argument this was the way to go?

Tests were run. 15% – 30% more power. 15% better fuel efficiency. The Army subsequently ordered all aircraft engines built after January 1, 1938, designed for 100-octane fuel.

Shell Oil had gambled as well. And they would eventually go from supplying 20 million gallons of airplane fuel annually to 20 million gallons of high-octane fuel daily with the onset of World War II.

What would our planes have done, with 30% less power? 15% less fuel efficiency? We can only guess. Or maybe not! Can it be the case 100 octane versus the standard 87 octane really had that great an impact on the war? A 2009 Press Release from the Royal Society of Chemistry tell us:

*[www.rsc.org/AboutUs/News/PressReleases/2009/SpitfireFuel.asp](http://www.rsc.org/AboutUs/News/PressReleases/2009/SpitfireFuel.asp)*

## **THE SECRET FUEL THAT MADE THE SPITFIRE SUPREME**

**13 May 2009**

The Royal Society of Chemistry (RSC) recently published a paper exploring the “miracle” chemical breakthrough that gave Britain’s Spitfire and Hurricane aircraft the edge over German fighters during the Second World War.

American science writer Tim Palucka claims, because of the superior altitude, maneuverability, and rate of climb achieved because of the high-octane fuel, the Spitfires and Hurricanes gave the British fighters in the summer of 1940 the edge over the Luftwaffe above the English Channel and in the skies of London and south-east England.

*“That (chemical) process would make a crucial difference in mid-1940 when the Royal Air Force started filling its Spitfires and Hurricanes with the 100-octane gasoline imported from the United States instead of the 87-octane gasoline it had formerly used ... Luftwaffe pilots couldn’t believe they were facing the same planes they had fought successfully over France a few months before ... The planes were the same but the fuel wasn’t.”*

The battle now favoring the British, the German invasion was abandoned and Hitler turned eastwards, allowing the UK *armed* forces time to regroup and to revive.

How much speed could a simple fuel change make? The RSC continues: “The 100-octane fuel that resulted from the Houdry Process increased the Spitfire's speed by 25 mph at sea level by 34 mph at 10,000 feet.”

100 octane aviation fuel. It changed the course of the war – and maybe history. *And it almost wasn't!* One wonders what might have been the case had it not been – for Jimmy Doolittle taking a “calculated risk”:

*“I think there are two great benefits of an advanced degree: one is the increased knowledge and greater capability that you have, and the other is the prestige it gives you with your associates, particularly those who also have advanced degrees, so I took a calculated risk in pushing vigorously for what I believed was not only good for Shell but good for the military as well. I believed in 100-octane fuel, but I would not have been able to sell the idea had I not had the educational background that the Army had given me.”*

Jimmy Doolittle’s Autobiography  
*I Could Never Be So Lucky Again*

### **A CALCULATED RISK**

What was the nature of Doolittle’s “Calculated Risk”? What constitutes the “calculation” and how does one establish “risk”? We’ll talk more about these parameters, shortly.

# *“When You Take a Risk . . .”*

## THE SECRET OF HIS SUCCESS

100-Octane Fuel. A key to the Allies defeating the axis in World War II. And it stemmed from Jimmy Doolittle taking “a calculated risk”.

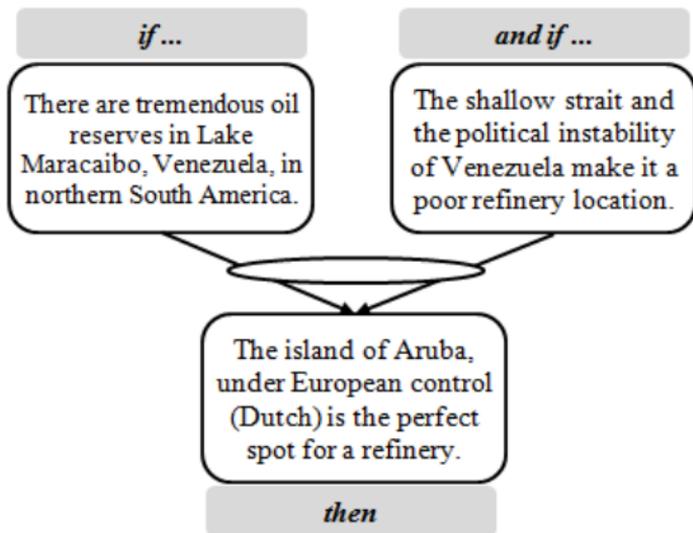
Where did this fuel come from?

Mostly, the tiny island of Aruba, off the northern tip of South America! The story of how – and why – there came to be an oil refinery on the island of Aruba is an amazing one. Primarily, it’s due to the tremendous oil reserves in Lake Maracaibo, Venezuela, just south of Aruba.

Why were we getting our important high-octane fuel from Aruba, after this crucial decision to convert our post-1938 military planes to it?



Because of the large reserves at Lake Maracaibo, it only made sense for a refinery to be somewhere near. But because of the shallow straight leading from the Lake to the Caribbean, it made sense to have the refinery outside the lake. The only question was: in Venezuela or not? Due to the instability of the Venezuelan government, a refinery was built in Aruba, an island off the northern coast of South America, and under Dutch control:

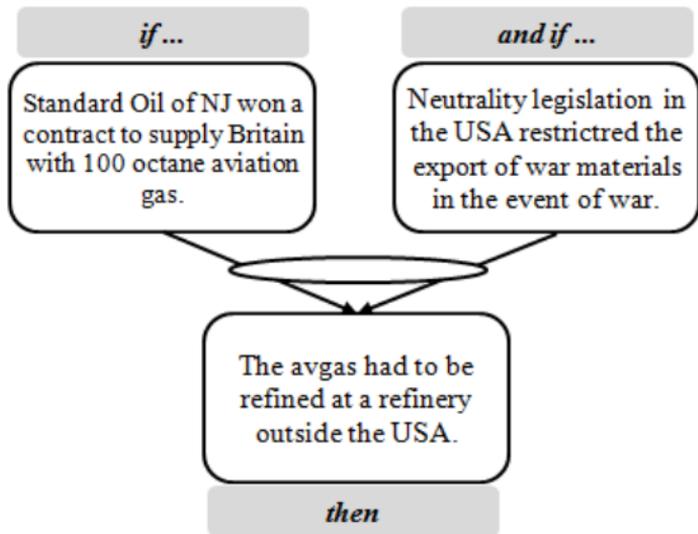


And it became the largest refinery of high octane fuel in the world? Why? As tensions in Europe rose in the late

1930s, Britain needed this new aviation fuel. *Where would they get it?* The logical answer was the United States. However, the US was neutral in the European conflict, and neutrality legislation restricted the export of war materials.

However, Aruba was under no such contractual agreement, though the Aruban *refinery* was owned by Standard Oil of New Jersey!

And the refinery grew to become the largest refinery of high octane fuel in the world:



## **ARUBAN HIGH-OCTANE FUEL: THE IMPACT**

And “non-USA” fuel made its way to Britain. We already talked about the impact. Let’s add a few specific details:

In the 1940 “Battle of Britain”, [www.Lago-Colony.com](http://www.Lago-Colony.com) reports “From September 4 to the 30<sup>th</sup>, the Germans lost 955 planes while the British only lost 267 planes. No longer able to sustain the high loss of aircraft, the Germans switched to nighttime raids. This reduced their losses but not the ratio of German to British aircraft lost and they were not as successful in causing damage to the targets. In November of 1940 the Germans sharply reduced their night raids on Britain.”

And as the allies were aware of the causal reason for the dramatic turn-a-round, so too were the Germans.

The Germans understood what was going on.

And they attacked.

On the night of February 16, 1942, the German High Command sent a task force of U-boats to disrupt the shipments of crude oil to the refineries. In this attack, four

tankers were torpedoed. Three sank, and the fourth was beached with her mid-section destroyed.

Fortunately, an attack on the refineries was thwarted when a cannon exploded on the German U-Boat 156, rather than sending the arsenal towards the refinery.

*How might the war have been different had that shell / attack continue?*

And with the USA now in the war, we needed this refined oil – this aviation gold! But how does one get this fuel from Aruba to the USA mainland in tact – with German U-boats patrolling the sea?

A convoy.

And it was aboard one of these escort ships our own Ewing Kauffman sailed. As a signalman.

*“In order to prevent the enemy from learning of their plans by listening to the convoy’s radio frequencies, sailors trained as signal men transmitted messages from ship to ship, either by flashing light or with flags, outlining the various maneuvers for their nocturnal journeys.*

Kauffman “had all the natural attributes to become a superior signalman. His facility with words, a quick and agile intellect, and the love of almost any competitive enterprise all combined to establish his prowess in this endeavor.”

But he wouldn't be “just” any signalman.

While Kauffman was on deck one early morning, the Captain approached, pointed to a star, and asked Kauffman if he knew what the star was. He didn't. “That is Sirius, the brightest star in the sky and so large that if you put the earth in the center of it and the sun ninety-three million miles away from the earth ... the sun could revolve around the earth and never get outside that star. Kauffman was fascinated.

And he took it upon himself to go to the ship's library to study more. The Captain was impressed. He suggested Kauffman enroll in a correspondence course on navigation.

After the next shore leave, the Captain gave Kauffman a sextant – the Captain's own sextant – with permission to take sights along with the ship's navigational officer.



It's important to remember: Kauffman's job was signalman – to signal other ships in the course of radio silence. The navigational officer was responsible for navigating – longitude, latitude, ocean depth, and most importantly, coastline.

And there were plenty of coastal barriers between Aruba and the United States, i.e., the Caribbean:



At night. Without radio communication. No GPS. And the real fear of German U-boats combing the waters!

### **THE CONVOY HEADS NORTH**

The convoy of approximately fifty ships traveled north, escorting these valuable oil tankers back to the United States.

*(Mike note here: were these oil tankers bringing oil from Aruba, or avgas – the high octane aviation fuel already refined? If oil, where to and for what purpose? Was Aruba the sole source of oil in the USA during WWII? Where were our refineries? Lots of things to look into here, logistically. I'll 'refine' this whole process as I learn more.)*

*“We were passing between the straits by Cuba and, because we were going to be doing it at night, we had to tell the ships that we'd make a turn at one o'clock in the morning. So we passed the message during the daylight before the sun had set, stating that we would make a turn to 095 degrees at one o'clock in the morning. That would enable us to*

*miss the islands because [the] ships were spread out at approximately a five-mile-wide radius across the front.”*

Consider what’s involved here. The convoy is heading north, and, while in daylight, has to determine when they’re going to turn at night. Not only do they need to know where they *are* – which is hard enough – they need to know where they’ll *be* hours away, taking into account currents, speed, etc. And if they’re wrong? Grounded? And all this, with the real possibility of being sunk by the Germans!

And this would be hard enough if it were just one ship. This convoy is approximately 50 ships, spread out over many miles!

Kauffman, on deck, has taken his sightings to determine their ship’s position. And he disagreed with the navigator. Kauffman “had us approximately eight miles further ahead than [the navigator] did, but naturally the captain had to take his sightings because he was the officer and I was still just an enlisted man.”

*What would you do?*

Kauffman went to bed.

## CONFIDENCE

Yes, Ewing Kauffman went to bed.

But he could not sleep. He *knew* he was right. And if he was right, then he knew three ships would run aground at the designated turn-time.

What should he do?

Tell the navigator. After all, it's his job, and he would want to know the ships are going to run aground. *Did Kauffman?* I don't think so. Why not? Likely, Kauffman reasoned to himself, "If I show [the navigator] he's wrong, he's going to take offense a signalman was doing a better job than a trained navigator. If the navigator has to go to the captain to announce the error, likely he's in fear for his job." There are probably several scenarios Kauffman raced through in his bunk, unable to sleep, but they all culminate in his belief: If I show the navigator, he will do nothing, and we will run aground.

*What should Kauffman do?*

Go tell the Captain directly? And tell the Captain to change course based on Kauffman's recommendation? Kauffman continued to himself: *if I'm going to tell a convoy*

to change course, *then* I'D BETTER BE CERTAIN I'M RIGHT!

It was too late to take more sitings, but he could use the ship depth charts to determine where they were right now. “If I’m right, then our depth right here should be  $x$ ; if the navigator is right, then our depth right here should be  $y$ .”

But to use the fathometer was a risk – and also against regulations. Like sonar, it sends a pulse through the water, measuring the time change, as the sound returns from the sea floor.

And a sound cascading through the water can be detected – by the Germans.

“But to the determined young seaman, the risk seemed worth the prize”

And he was right.

*“Without a moment’s hesitation, Kauffman went straight to [the Captain’s] cabin and awakened him. When the captain asked what he wanted, Kauffman announced, “I think there is a mistake in our navigation and we better make our turn earlier.”*

*As soon as Captain Crenshaw reviewed Kauffman's fathometer readings, he broke radio silence and ordered the ships to take the turn at 12:30 P.M. instead of 1:00 A.M. "I was right.*

*"As a result, when we got to New York, he had me made an ensign and he named me as his navigation officer."*

*In reflecting on the episode, Kauffman mused, "[This story] illustrates that when you take a risk, sometimes you lose but sometimes it pays off big, and that certainly did."*

Yes, Kauffman took a risk. But there are many types of risk, and there's many ways to deal with risk. Confidence in his ability, verified via the fathometer, suggests this was more than a mere risk: it was a *calculated* risk.

## **“A CALCULATED RISK”**

### **In Search of a Meaning**

Jimmy Doolittle took a “Calculated Risk” in advocating for 100-Octane aviation fuel. Shell Oil did not agree. The military did not agree. Yet he argued on – and was right. Thankfully.

Ewing Kauffman took a “Calculated Risk” in advocating for a course-correction over the recommendation of the ship navigator. He argued on – and was right. Fortunately.

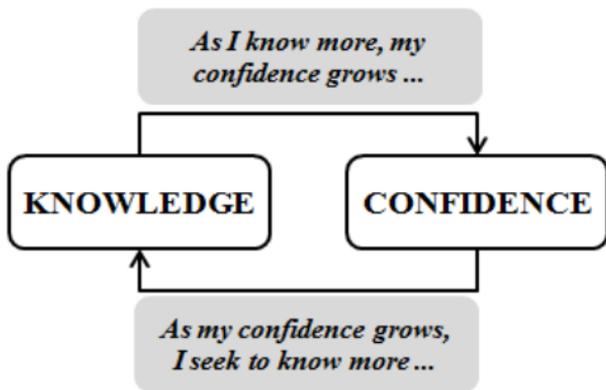
They *knew* they were *right*.

And in this brief sentence resides to me, two necessary attributes to truly take “a calculated risk”:

**KNOWLEDGE**

**CONFIDENCE**

And these two are not mutually exclusive. The more I know, the more confident I become. The more confident I become, the more I seek to know.



Is this it? Is this the “Secret to Their Success”? It’s been said Seneca responded to the phrase, “That was luck” with: *“Luck is what happens when preparation meets opportunity.”*

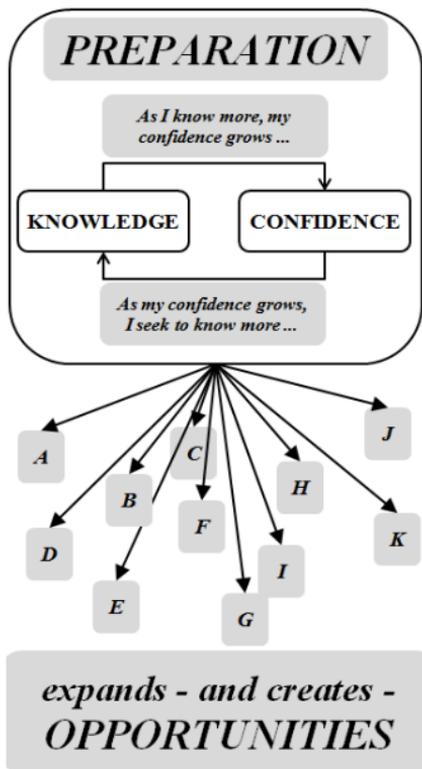
Is this what happened in our two incidents? “Preparation met Opportunity”? Something is missing, for our two heroes didn’t “Prepare” for these “Opportunities”, did they? Doolittle didn’t study to make a decision about aviation fuel. Kauffman didn’t study to become a navigator about a convoy ship. Yet there they were.

What is the relationship between “Preparation” and “Opportunity”?

If “Opportunity” is viewed as one line in the grid, and “Preparation” an intersecting line, then the point of intersection *is* “lucky”. We’re talking about something different here. They were prepared – to meet *many* opportunities!

But describing “opportunities” like this gives the impression there are many opportunities we face, and we must be prepared to meet them. What about the opportunities – challenges – of designing a new cockpit? Advocating for a new gas? Building a new company? These don’t even exist, but we’re prepared to meet these challenges as well! Therefore, merging “calculated risk” with Seneca’s sentiment, we have:

***A CALCULATED RISK IS WHEN PREPARATION MEETS OPPORTUNITY!***



***THERE'S STILL WORK TO GO ON PART II***

***Proper Sourcing***

***WWII logistics***

***And a bit more on "Calculated Risk"***

# **Part III**

## **Implementing these Skills in the Business World**

**In the Works!**