

Why Air Forces Fail

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Dr. Kass: Well, good morning. I can't see you anyway. Can you hear me? [Audience response]. Can you understand me? [Audience response]. Two different things. [Laughter].

Mr. Davidson is here, and he is keeping score on my presentation. The best I got from him was a C+, so all I'm shooting for is better than that, which shouldn't be too difficult.

I am really sorry that our Command and Staff students needed to leave. This is one presentation that is actually targeted at the younger generation. So, all of you here are the right audience. [Laughter].

This presentation reflects my own personal views, not the views of the Department of the Air Force, not necessarily the views of the Department of Defense. More importantly, this presentation is pretty much my experience and, in many ways, who I am. So, I'll try to do this without even the slightest crack in my voice. Again, if my voice does crack, Mr. Davidson is here and I know he is going to downgrade me. [Laughter].

You should ask yourselves the question, why in a conference designed to celebrate the best Air Force on the planet, the biggest supporter of the best Air Force on the planet asks for a presentation on Why Air Forces Fail. Most human beings try to forget failure. It's a natural human tendency to try to repress bad experiences. And yet, the AFA, to its everlasting credit, put on its own website a pretty awesome briefing called exactly what this briefing is called: Why Air Forces Fail.

And without speaking again toward the AFA, my own sense is that leaders are prone to say failure is not an option. But leaders also fail to imagine failure. They're reluctant to imagine failure. My own personal view is that if you want not only to avoid failure but to actually lay down the foundation of success, you should look at the root causes of failure and try to avoid those.

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There is a pretty good book called *Why Air Forces Fail*. And I commend this book to you. It's not the best thing ever written. It's an edited book. Some chapters are better than others. But it puts together the elements that historically accounted for failures on the part of the Air Forces. And it uses a set of foreign examples and kind of summarizes, as you can see on this slide, pretty obvious rationales for failure. Okay?

There are several themes that run through this book: Lack of training or inappropriate training; failure to understand the conflict and emerging threats, training consequently for the wrong fight; and probably, most typically, air power relegated to a supporting or subservient role to the land component.

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I'm not going to provide you a book review, but just as an interesting note, the book divides the various case studies into three distinct categories of failure. Again, you have it on the slide.

Those that really went to war without ever having a chance to win. Those that looked like they were doing pretty well at the beginning but failed due to inability to exploit early success, and those who, the Phoenixes, who rose from the ashes of early defeat and actually managed to deliver on the objectives set for them by their national command authorities.

Again, the key determinants of failure are important to this audience; deficiencies in the industrial base, misguided choices as to technology and tactics, and important neglect of logistics and neglect of pilot training.

So this is what's being done, which you can all read about. [Check's] own personal view, however, is that Air Forces, like militaries - next slide - do not fail by themselves. Failure usually, most often, almost always happens in an overarching national strategic context. So it's not Air Forces fail; it's nations fail; it's militaries writ large fail. And when you look at failure in this larger, more strategic context, you would divide it into - I would divide it into - a little bit different categories than phoenixes, and ducks, and hares. I guess I'm drawing my analogies not from the animal kingdom.

And I would divide these failures into three distinct but very tightly related categories. One is the failure to anticipate. And failure to anticipate falls by itself into

three, again, distinct but related categories: Failure to anticipate the kind of war you're going to fight, failure to anticipate the nature and behavior of the enemy, and technological supplies - failure to anticipate destructive game-changing technology which [inaudible].

Failure to learn is equally important and probably equally pernicious. It involves organizational and systemic deficiency. Inability to draw lessons from your own past as well as from the experience of others.

Failure to adapt is probably the most deadly of them all. It involves Einstein's definition of insanity, which is doing the same thing over and over again and expecting different results. Failure to adapt reflects inherent human reluctance to adjust behavior.

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I am going to use the Israeli Air Force as a case study, not only because I know something about it but because in a fairly short concentrated period of time, this tiny Air Force demonstrates all the relevant lessons I want to talk to you about. It has gone, in a very short period of time, from absolutely spectacular unexpected unanticipated successes to near catastrophic failures and back again.

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And let me start with the best known story of spectacular success. Now if the Command and Staff College students were here, the War College students that are here, favorite topic for Airmen to write yet another paper about it. And man, when I taught for the National War College for 20 years, I read more about this one, which I happened to experience as a 12-year-old lieutenant. [Laughter]. Just checking if you're listening. [Laughter].

Known in Israel, the [old campaign] is known as Operation Moked. And the reason I'm using the code name is because it was very carefully chosen. Moked in Hebrew means two words. It's a double-meaning word. First of all, it means focus. Second, it means pyre, P-Y-R-E, as in a pile of burning stuff. So, it's kind of a well-chosen code name for an operation. Just like Instant Thunder in Desert Storm. It is a classic example of decisive victory for air power.

Not a hundred-hour ground campaign preceded by almost a thousand hours of an air war. This is a war-winning three-hour air campaign. By 11 o'clock that morning, three

large enemy Air Forces lie in ruins. And the remaining five and a half days of the six-day war are all about taking terrain with total air supremacy.

It looked really easy. It surprised everybody, to include the civilian population of Israel. But it wasn't easy. It was rehearsed for a year. Think about the avionics of the 1960s. All command and control is done by a stopwatch and a compass in total radio silence.

You can see on the map very nontraditional ingress, inner roads, taking the long way out to the Med, very low over the top of the waves, into the target area, again, in total radio silence. Parallel attacks on all airfields at an unexpected time with the with the enemy codes just landing morning patrols, just having finished breakfast and taking the normal functions that most people do after breakfast.

And, if you love statistics, rather than effects, you have the numbers. Four hundred and fifty-four enemy aircraft destroyed, primarily on the ground, about 60 percent of them on the ground directing air-to-air engagements.

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So what do we learn from this? There are four critical lessons. The first one is pretty obvious. If you employ air power like Billy Mitchell wanted it to be employed, offensively, independently, in a virtually unconstrained manner, it is a war-winning effort, even if you're fighting outnumbered against vastly superior, at least numerically, superior enemies.

The only place in the six-day war that air power was not used for political considerations was Jerusalem. Political decision not to destroy the city. Understandable political decision resulting in the bloodiest urban warfare of the entire war and the highest number of casualties. Just a data point to keep in the back of your mind.

The second lesson is equally obvious. Planning and training, not only of the pilots and nav, as the book suggests, but ground crews. Seven-minute turnaround in over 4,000 combat sorties. Seven-minute turnaround. They had to refuel. Think about it. It requires superior training of 18-year-old primarily enlisted draftees.

Third lesson, again, pretty blinding flash of the obvious. Leadership and morale and superior training will win over numbers.

Lesson four is less obvious. Unless you truly destroy not just the enemy's infrastructure, not just the enemy's military might but his will to resist, he will come and fight you again.

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And the next war, Israel's long war, starts almost immediately after the victory parades are over. You would think that after a spectacular victory like this there would be peace and quiet for awhile, yet the new war starts in early October, 1967. And it starts immediately on all fronts, plus an ever-escalating terrorism campaign.

Throughout this long war, the Air Force becomes the linchpin on which the nation relies. The long-strike arm, total growing reliance on air power. But also, throughout, strategic misuse of air power. The Air Force essentially becomes flying artillery. As a matter of fact, there is a conscious budgetary choice not to invest in artillery because there is the Air Force. The primary focus is on the irregular terrorist threat, even though there is a pretty regular war going on along the borders.

Huge successes. Huge successes. In a single engagement, seven Russian-flown MiGs are downed. Think about it. A tiny little country downs seven Russian-flown state-of-the-art jets. If I ever write my autobiography, this chapter is going to be called *How to Start WWIIII Without Even Trying*, but I am going to.

I'll give you another example of a spectacular success. Helicopters lifting up and delivering as a gift entire radar installations; delivered them to the United States actually, at the height of the Cold War; Vietnam war still going on.

So what you have is this very strange situation of a national lull; total disconnect between the military fighting the war at the far edges of the empire, the nation in an economic bubble. And again, spectacular victories feeding this national hubris - that nobody comes close - at the same time you're taking pretty significant losses. And these losses kind of become the new normal. And this is something I want to come back to and hopefully address that also in the Q&A.

As a student of human psychology, more by necessity than by academic training, I am always amazed at the inherent human ability to adapt to just about anything. Erosion occurs over time; usually slowly, usually in an

almost imperceptible manner. But because of that, you adapt to it and take this new normal even though it's below the threshold - below the standard of what you are used to - as that's-just-the-way-things-are. And losses are just because of doing things, and the fact that your skills are eroding in key areas, you almost pay no attention to. Sounds like -- I'm not going there.

Another interesting point. During this period, because of the focus on the fight against Palestinian terrorism, everybody is doing in lieu of taskings to include Airmen, as you can see on the picture.

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So, here are the lessons. Again, any similarity to the current situation is purely coincidental in your own conclusion. Target fixation leads to failure to achieve strategic and operational objectives. You fritter a strategic asset away, and you lose skills and life.

At the same time as you are fixated on fighting what is, you not only fail to learn and adapt, you also don't notice the enemy's learning and adaptation. And again, you kind of push it into the realm of the new normal. Advantage - military advantage, political advantage, strategic advantage - is fleeting, but you usually don't notice it slipping away. And last, and most importantly, hubris kills.

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And again, this is demonstrated in spades in six years after the most spectacular victory, at that time, since the Normandy landing. So think about it. Within the life span of going from a newly minted 12-year-old second lieutenant to a newly minted captain, you go from the spectacular victory, surely, to the verge of disaster.

The '73 war is a national failure. It's a national failure to anticipate, foretell, and deal with a threat. It's a national surprise, but when you look at this in retrospect, you could see it coming. You could see the progressive erosion of what, at the time, was top-of-the-line technology that [inaudible] in the IAF in 1969, state-of-the-art weapon at the time. Lots of bad habits from this long war. Lots of bad habits, but also a lot of complacency. And I'm here to tell you, if you survive flying against what is a pretty robust air defense, probably the most robust IADS, integrated air-defense system this side of Hanoi, you really think you are invulnerable.

The last kind of tactical warning of things to come is a massive engagement over Syria less than a month before the war, which feeds the national hubris; feeds all the national preconceived notions that it's air-to-air, that nobody can touch you. My own personal view, and I cannot obviously prove or validate it, is that the Syrians deliberately sacrificed 13 MiGs, sacrificed those pilots and the jets to feed the hubris and reinforce the surprise.

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Which brings us to the eve of the war, the actual surprise. Surprise is a matter of degree. The more convinced you are of your assumptions of what reality is - of what tomorrow will look like - the more convinced you are, the deeper the surprise.

This is on a par with the surprise of 9/11. And think about how you felt the first time you saw an airliner fly into a building. This is the functional equivalent of waking up and seeing the sun rise in the west. So when tactical warning is provided, time - precious time - is lost on really stupid arguments, political arguments, whether or not to pre-empt, and I will be happy to talk about it.

Chief of the IAF makes a very impassioned argument to pre-empt. He gets overruled for political reasons. We can argue right or wrong, but that's the reality. And the result of political arguments and political uncertainty is operational and tactical confusion.

That morning, weapons are loaded and offloaded about three times. In brief, debrief, and you're doing nothing until the actual attack comes. And for the first time in its history, the IAF takes off under fire; totally not the way this was supposed to be. As I said, functional equivalent of waking up and the sun has just risen in the west.

So what's the first thing you do? You do something that you're totally not trained for. You do defensive counter-air, and you do close air support for the army commander that's screaming the hardest on the radio. You [fight] your assets without ever having the opportunity to establish air superiority.

The SA-6, which was used for the first time in the Yom Kippur War, is very quickly, by the end of that day, called the Three Fingers of Death. No tactics, no weapons, they

arrived late; they were in the middle of the war. But initially, that is the deadly weapon.

The actual losses, especially in fighter squadrons, are much higher than officially acknowledged. Forty percent is considered catastrophic attrition by any standard.

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By the end of the first 24 hours, the IAF, the IDF, Israel stands on the verge of defeat. Political concerns waiting for the United States are international negotiations, all kinds of important things which make very little difference to you when you're a captain, interfere with any attempt to reestablish air superiority.

The leadership is so paralyzed by the surprise that it has trouble deciding where the center of gravity is and where the preponderance of effort should go. It takes, again, precious hours to decide that the center of gravity and, therefore, the preponderance of effort should be dedicate to the Syrian front.

Now if you look at the map, you can understand why. That is a very narrow part of Israel; this is where you can cut the country in half. This is where the main population centers are. Syria, however, is the weaker of the two enemies. So that decision ultimately cost lives, because you are trying to stave defeat on the most shaky front but you actually do not attack the center of gravity, which is Egypt. And, again, Israel comes very close to the brink of using its ultimate deterrent.

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Let me talk about a couple of things that most people do not talk about. Logistics. The IDF was using American-developed, tested, computer analyzed by all the whiz kids. Supply and weapon expenditure tables. Within 24 hours, it was very clear that the ferocious rate of consumption of everything - beans, bullets, bandages, POL, everything - was way out of whack, and you ran out of everything. Just-in-time never caught up.

Again, if you fail to anticipate what you need and you somehow expect magic to produce it, the price - the risk you're taking - is measured in lives lost, often unnecessarily. The price of that war is 5,000 casualties. If you do the math, this is proportionate to - given the size of the population - over 400,000 American casualties in three weeks of combat.

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So what are the lessons? You can read them. I can't add much to what's on the slide. If you run the video, just a quickie. This is ultimately how it ends.

I would probably mention lesson number four, because you need to ask yourself if it's applicable only to the case I am talking about. Your allies may not be there to bail you out. This is a lesson that Israel drew from this war. And if you want a key to current behavior, think about this. This is within the formative experience of the current leadership. I would submit to you that the lesson is applicable not only to a tiny country in the middle of a bad neighborhood.

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At the end of the war, with all the Commissions of Inquiry, and the typical effort to investigate and reorganize yourself out of failure, the budget spigots open up; the IAF is once again considered the linchpin of deterrence and warfighting capability. Air power is recognized as the single point of strategic success or failure. And things look pretty good. The payoff is almost immediate.

And I just listed a couple of the most spectacular and better known successes for air power, specifically highlighting the bombing of the Osirak reactor in Iraq and the decisive victory in the '82 engagement in the Bekaa Valley - by the way, the first extensive use of cross-domain dominance, integrating air space and cyberspace at a score of 89 to 2 (89 Syrian jets downed, 2 Israeli jets downed).

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Here is the bad part. Lessons learned, we call it elsewhere, are very often, just lessons noted. And when you only note the lessons, and you see the payoff of the collective action that you have taken, pretty quickly you say okay, I'm fine now; I have fixed the problem. A new complacency sets in. Dominance, once again, is taken for granted. Fourth-generation fighters dominate over everything in the region.

The future fight is going to be on the ground; it's pretty clear. You have base realignment and closure as a result of Camp David Accords. You have, all of a sudden, an environmental protection movement, which you never had

in Israel, which restricts your flying and training ranges. Everything is focused on IW, on the irregular warfare, which erupts both on the West Bank and subsequently along the Lebanese border, and Airmen are doing a milieu of tasking one more time.

Again, almost as quickly as you see the payoff, you see the price. And you see it in the hybrid war against Hezbollah last summer. Again, failure to anticipate the nature of the war, the nature of the enemy, underestimating the enemy. The idea writ large proves itself not able to deal with what is a hybrid asymmetric fight. Still, these rivalries are rampant. You have an unsuccessful war, weak political leadership, and - it just so happens - the Chief of Defense happens to be an Airman. Not a pretty picture. The result, at best, a military draw; at best, a military draw.

I would argue that at the political and strategic level, where it counts, the Hezbollah war is a defeat for Israel. And the consequences are yet to be fully manifested.

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So here is the stuff I want to leave you with. And I'll leave this slide as I try to answer the questions.

Success and failure are pretty cyclical. So don't get lulled into any situation being permanent. Because just as soon as you think you have found the key to success, you stop learning and your opponent continues to learn.

Air power is indeed a strategic asset. No modern war has been won without air superiority. And when you don't have air superiority, it really does not matter how big or how good your land force is.

Redemption, coming back from failure, being a phoenix, if you take the analogy from the book, is possible but usually does not last very long. Dominance erodes over time, just like nature abhors a vacuum. International relations will not allow a single nation to dominate for very long. Somebody will learn, adapt, and develop a way to knock you off the pedestal.

Don't take air superiority for granted. It is not a God-given right. It is not something that you can assume will be there. It is a battle. It's the first combat engagement of any war, of any modern war, and if you're not going to win it, it really does not matter how good or how

bad your land forces are. I would extend it in modern warfare to space and cyberspace.

And don't forget, whatever you are doing, whatever your current focus is, the enemy not only gets a vote on what kind of engagement we're going to fight, the enemy will continue to adapt, to learn, and to anticipate.

Thank you very much. I'll take your questions. [Applause]. Mr. Davidson? [Laughter].

Question: Clearly a B. [Laughter].

Dr. Kass: Do I get better than a B? [Applause].

Question: Yeah. [Applause]. Sorry, Bill, you got outvoted.

Dr. Kass: [Laughter].

Question: Unfortunately, we've got time for only one question.

Dr. Kass: Boo.

Question: But I think that Dr. Kass is going to hold class right over here in the corner afterwards. Let me ask this first question. By the way, we've got a bunch.

Dr. Kass: Short answers.

Question: A lot of questions. With the assumption that the United States Air Force understands why Air Forces fail -

Dr. Kass: Okay. Big assumption. [Laughter].

Question: - do you believe these lessons are understood by OSD and Congress?

Dr. Kass: Since I'm speaking my personal view, there is a really short answer. No. More importantly, those lessons are not understood by the American people and their elected officials.

Question: That's fair.

Dr. Kass: Next question. [Laughter]. Take one more that is short.

Question: We'll do one more. This is a little more complex.

Dr. Kass: Oh.

Question: Regarding the recent direction of UAS-only pilot training, how do you see that impacting lessons learned? In other words, could this decision be perceived as not considering the three determinants of failure with the industrial base, with the focus in a single area -

Dr. Kass: No. Absolutely not.

Question: Okay.

Dr. Kass: I think I know where the question goes. A very little known factoid: The UAS is an Israeli invention, first used extremely successfully in the Bekaa engagement. So I am a huge proponent of UAS. Matter of fact, anyone that has flown into a high flat area is a great proponent of UAS, okay?

So a very short answer. No, I do not think this is demonstrating failure to take lessons into account. To the contrary, to the contrary, taking catastrophic attrition is simply not smart. Especially not in a Western country which tends to put huge value on human life and the public reaction.

And again, the Israeli public reaction during this summer war with the Hezbollah should be a really good lesson to us all. When you are accustomed to winning and you're not used to war coming to your own personal house, politics shapes how military behavior is going to proceed. The interesting lesson, actually, I would take from that is the use of UAS - very innovative use of UAS - by an asymmetric opponent and the lack of counter-measures; there are two really interesting cases of trying to shoot down a UAV by an F-16. Just picture the geometry of that [inaudible]. It's a pretty interesting video to watch.

So no, I think UAS is part of the lesson learned, rather than negating.

Question: That's fair.

Dr. Kass: How am I doing? One more? Quick question.

Question: No. No. Can't do it.

Dr. Kass: I am just the warm-up act for --
[Laughter].

Question: Oh, I know you're a warm up act.

Dr. Kass: [Laughter].

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