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Wings & Things Guest Lecture Series

Billy Mitchell's Air War: Practice, Promise and Controversy

Dr. Michael L. Grumelli examines the relationship among airmen, technology and air-mindedness in early military aviation.

Dr. Michael L. Grumelli: Well, good evening. And before I continue, let me make sure I say thank you to General Metcalf and to the museum staff for a marvelous day. I've been to the museum a number of times, not since you put the new wing on, and I have to be very careful tonight, and I promise I will not make this 'My lovely day at the Museum' as a speech. What we really need for that would be a nice 10-year old, very precautionous or perhaps her mother to come and talk about what it was like to visit the Air Force Museum. But the staff just made a marvelous day for me.

And I bring that up, because as I went through the museum and I see the museum's motto of 'We are the keeper of their stories,' it worked exactly like that for me. I thought of my father. I thought of my father-in-law who was an armorer and loaded B-24s off the Ploesti Raid. I can see other things. It was once emotional to some degree. And maybe perhaps is our culture, touching things and seeing things that have mattered to others or to ourselves, plays a part. And it reminded me at the last, and again, I'm not going to give you my 'Wonderful day at the Museum' talk, about my son.

Gregory is, he likes to go by Greg. I always remind myself that. He's seventeen, going to graduate from high school, getting ready to go into college. And we came here; he was a kindergartener, first time for him. And his mother, who was also an Air Force Reserve Officer, Nurse Corps, had been associated with the Medical Center out here for many, many years. She was doing a tour. We were here visiting. We got to go to the museum. And I knew I had to then go and see her. And we were done out. We were seeing the planes on the ramp. We've gone to the World War II control tour. He had asked for the first time what's a rotary phone, he'd never seen one before. "What is this, daddy?" And he was marvelous. But dads, at the end, and I'm finally saying 'We have to go home,' what I noticed is my son is scratching his leg. Oh, we're driving. Oh, I mean he's scratching his leg. And as the father, of course, these things occur a little bit slower to me than perhaps the mother. But I knew I had to figure out what's going on before I got there and was questioned. So I said to him, and again, this is a notion of dealing with children at that age about the use of language. And I should have said, 'Why are you scratching?' or 'What is causing you to scratch?' Instead, I just said, 'What is itching?' Now, in only the way a child who suddenly thinks the adult whose now he is entrusted to has lost his mind, my son looks up at me and goes, 'You know what itching is.' And that brings me to tonight.

You know what the controversy of Billy Mitchell is. You know who he is. But I hope perhaps, by the end of this presentation that you might think about it, maybe itch a little bit about these notions of Billy Mitchell, his controversy in the early Air War. Now, young Billy Mitchell, a disappointment to his father, he leaves college, joins, as a private in the Wisconsin Volunteer, the first Wisconsin Volunteer Regiment to go fight the Spanish American War. His father, of, course, a Senator, a very prominent family in Wisconsin, his grandfather had been essentially a baron and built a bank and a railroad success story. He makes sure that Billy becomes Lieutenant Billy Mitchell. And we see Billy here early on.

But what is important about this time as the war comes about is Mitchell is influenced by what would be the dominant intellectual movement of the day, progressivism. But not just any progressivism, like social progressivism or clean government progressivism, but organizational progressivism, that which would lead to the AMA, the American Medical Association taking control of medical schools and the practice and who gets to enter. The American Bar Association doing the same thing in law, the Society of Engineers that would produce a Herbert Hoover later. The dominant thinking here was proper organization in an increasingly complex life of America was key. That also meant you needed people with proper training and proper experience and a control to the profession. So out of this also comes notions of scientific management and the gasp of efficiency that our public life should be able to be maneuvered and organized in a way that optimizes its ability to produce services or goods or happiness. And Mitchell is influenced by this. When I come back to this, our organizational theme in his thinking we'll see that again.

But this is sort of the young Billy Mitchell influenced in college off to his first war. America's now entering the twentieth century at the end of this period. What is dominant here? The other influence early in his life, of course, is we see the Wright Flyer, is machines. America, as it moves towards World War I and the period of Mitchell's controversy is becoming increasingly machine-based. Things that we take for granted today as they ever came on to electric irons, other sort of devices, machine-based. Ultimately by the time that he comes back from World War I, we find an increasingly machine-based society and the auto machine, not necessarily Ford's idea of an automobile for the masses. And of course, the automobile becomes the most pervasive of machines perhaps or the radio later. But the real machine that changed things was the air-conditioned movie theatre. I mean, you go in and you have your environment changed, entertained. You're just taken away. It's a time machine for some people who are playing on the story. So Mitchell sees machine-based society and that's fairly common at this time. And it's exciting, flight, the collapsing initially of time and space through this medium.

The other element, of course, is that America's becoming more urban based. will be at the 1920 census that indicates in fact more Americans are now living in what we would consider cities in the rural communities, that there's a passing here. So these two elements come together and will form a lot of what Mitchell thinks about in terms of Air Power, aviation and what would make the most organizationally sensed formation or foundation for defense after the war, of course, the war itself.

Here we see aviation. The Western Front, of course, is key at this time in terms of development. And a number of themes will come out to us. One is its rapid development of aviation. It had been well established in every major army before the war to have an Aviation Section of a number of squadrons come in and do observation. There have been training. There had been purchasing and acquisition. There had been basic doctrine laid out and how observation aircraft would function in support of an army in the field. There had been field exercises. All of this was established. But no one had expected what you would see by the end of the war.

In part, this was due to short war delusion, for example, the head of Acquisition for French Aviation. In 1914, when the war finally comes to them in August, cancels all orders for new aircraft, all orders for new engines, because he figures six months, the war is over. And we'll figure out what we really need later. He ends up losing that job as I recall, as they had to bring someone in out to get the factory orders going again, because in fact, the war does not end. And this is a war.

If you looked at the armies that entered in 1914 and the armies that exit in 1918, they don't look at all alike. It's very difficult to look back at World War I with Korea or Vietnam. We know that with changes. But when you looked at who marched off and the style of warfare in 14 to what is at the end in 18, it is a radical change, submarines, chemical weapons, aircraft themselves, strategic bombing, global war in a way that hadn't been seen before. The armies are radically different. For aviation, there's a tremendous leap forward in technology which puts a premium on industrial mobilization. Can you provide the resources to keep aircraft in the field? It's one thing to find people silly enough to fly them.

But the other thing is they try to put them in the field. And there's a tremendous race among the major powers to always gain a technological advantage in the air and to put enough aircraft in the air, because a good airplane, and maybe the best airplane in small numbers might not be enough to overcome equally, almost as good airplanes, in larger numbers, so keeping the field that forces there. And then of course, the change from what would be shared airspace. If you can imagine a time where it was just that loud, observation aircraft would pass by. You might have read this, waving at the opposite pilot, a brotherhood of the air seen to prevail until someone says 'I don't think it's a good idea that they get to cross over and take pictures.' And it goes from shared airspace to contested airspace. And that will fundamentally change the nature of the air war and the nature of the technology and the demands of air combat. It will be, of course, Fokker that comes up with the idea that we can use an interrupter gear to essentially allow us to fire along the axis of flight to destroy another aircraft to set a huge transformation in the nature of air as a business war. So there's contested airspace.

And then, of course, the event of 10 March, 1915, on the Somme is when Hugh Trenchard, the head of the Royal Flying Corps puts together an air plan in support of an offensive at Neuve Chapelle. And here, we find two themes, an integrated air plan to support the ground campaign which ground commanders have expected ever since. And

the second part was the first foundation of combat doctrine in the air which was he simply called, relentless offensive action, one that will continue to fly and continue to fight and hopefully win, will always take the attack to the enemy. So these are the big themes that are going on. And that America is watching from 1914 to its involvement in 1917. We then show up, of course, with this, "Join the Army Air Service of being an American Eagle."

When war finally comes and Wilson leads us into the great war in 1917, it is thought without a doubt that the nation that gave the world flight, would make its mark in this global war, this World War in the air. The newspapers are very interesting. "We're going to fill the skies over Germany with American aircraft and American boys." That's where we'll fight, not in the trenches, but in the air. And it fits, of course, that you can imagine a number of themes about a machine-based world and basic fundamental thinking about the American experience to that point, rugged individualism, self-dependency.

When you think of a machine war in World War I and you think of what was the major weapon systems that caused most of the casualties, the large guns and other things that come about, the term crew-served weapons comes to mind? Men serve the guns and they do the damage. If you read the Trench Poets and their relationship to these sword systems, these weapons, that if serving the guns to do this damage, but we know almost intuitively at this time, when you looked at the air and you looked at the machine, that this partnership of man and machine meant man was still the senior partner. Great aircraft, great pilot. It's Eddie Rickenbacker and his plane.

And of course the other element that seems to fit in with Americans who expected this to be [inaudible] thrust comes from the West. I mean how many ideas? It's not just the European's nights that they are fine, but Top Gun; gun fighting, Frank Luke, the Arizona balloon buster. I mean his whole death is written like essentially a Western drama, shot down in no man's land between the lines, too close to the Germans. The Germans are coming. He refuses to surrender, pulls out his side arms and continues to fight until he's killed. I mean the fact that it just fits a lot of dominant themes.

Now, of course, Congress played a part. The single largest appropriation that Congress had ever passed up to that point becomes 640 million dollars. It may be drop in a bucket today, but big money then, for aviation. Now, keep in mind I am putting out this entire drum beat of information about American air effort and it better show up. And this will lead a little bit to a better discussion of what is some post-war disillusionment with where is the American air effort, where the American aircraft, what happened here?

Now then, we enter; of course, Billy Mitchell comes to this play. In part, he has witnessed this notion of a change in the air war when he gets there by 17. He spends a lot of time talking to allies to give a plug for the current Chief of Staff of the Air Forces push for language and culture. Mitchell beats out the competition to be the leading airman in Europe, because he speaks French and Benny Foulois and a few others don't. So if your major air partner is going to probably be the French at this time, even more so than the Royal Flying Corps where even English becomes an issue, you ought to speak French

and he does. It gives him a huge advantage in dealing with an ally. He witnesses, of course, the movement to integrated air combat. And particularly, he is impressed by the need to gain and maintain air superiority.

Throughout the history and discussion of this part of the war, one could sense that as 1916, the Battle over Dawn or the Battle of the Somme shifts to delay the years. Who controls the air gains a market advantage in the ground combat. The Battle over Dawn in particular is marked almost completely by who could maintain local air superiority, because their guns became more effective in the large fights through observation than the other side. By the end of the war, offensive didn't go forward if the aircraft couldn't fly. It became a titanic struggle in the air as well as on the ground.

The other element to this notion of Air Superiority became essentially a combined arms approach to the air. All this is growing up in a very quick time. Observation aircraft need to be protected. The notion of providing a safe avenue to do the things, the ability to deny the enemy air space, so these we talk about today, every day, at either the Advance School of the War College or so, offensive kind of air, defensive kind of air, battlefield air and addiction. The notion of strategic attack comes out of this where the first blitz of London will come out of this war. The only thing they cannot manage is air-to-air refueling. They do even try resupply by air and long distance airlift. All those things were laid forward.

Mitchell, of course, meeting with group commanders in France in 1918, has three big challenges, and this will mark in into the post-war period. The first is where do I find Airmen and air leaders for this great American air effort? Who's going to train them? Where do we train them? How do we select them? There's wonderful stories, most of them false that deal with issues of training things. And we use to try this at the Air Force Academy when I taught there, maybe this is true. One was, you use the flight surgeon. You have a young aviation potential cadet and you walk behind him, have him read, slap him in the back of the head with a mallet, knock him to the ground. Have him stand up and see how long it takes him to read the phrase or the sentence. There was another one that supposedly they used. Again is, I think, they're all quiet fanciful in the mind of others, but people thought about is called "the nerves of steel" test. My wife likes this one for some reason, because she likes to sew and knit. As you take a very sharp needle sewing, put the sharp end here. Blunt in here. You hold it. Again, the flight surgeon walks behind the candidate, produces a revolver, that's interesting enough, fires it off and if you didn't draw blood or not too much blood, nerves of steel should probably make a good aviator.

And the truth is, if you've seen a movie like "The Right Stuff," no one really knew what was needed to make an aviator with the exception of depth perception, that really good eyesight and depth perception, a big debate about hearing. I want you to have great hearing, because you can sense the differences in your engine at this time. Open cockpit, lots of flying he went death sooner or later, so your great hearing didn't last very long. But these were the issues and Mitchell saying, 'Well, I got to come up to train people and I need to select these people. I mean, who has the experience to lead men in air combat?'

Leading men might be easy, but in this nature, how do you do that? And this was all on though as we try to grow into what would be a true air service in support of the American Expeditionary Force and to Pershing. And it will. There will be a number of fighter groups, bomber groups and we owe a great debt, of course we'll discuss later, to our Allies.

The other element of this is technology. Where do I get airplanes from? How are we going to ship them from the States? Well, that gets into the entire transportation process with everything else coming from America, as well as the building of it. And, in fact, he makes a constant search for equipment, for training, to bring together squadrons with enough time to go into action integrated. So, keep in mind. Where do I find Airmen? Where do I find the airframes to do this? He then begins a search for what would be the higher order thinking of "what's the best air fighting doctrine I can come up with." And here, he spends time with the French and the Brits and the Italians, examining what they know of the war, what they have tried, is it big groups, is it small groups, is it altitude versus this? What becomes the central war fighting doctrine and what we like to call the tactical and techniques level, at least. How might that work?

But ultimately, what Mitchell has figured out by this point and think back to organizational progressivism is the search for those three things will not go well without the proper organization and expertise to find answers and ask the right questions. The lack of preparedness to mount a major air effort in 1917 into 1918 is clearly also a failure of organization. The Air Service is too tiny. It was part of the Signal Corps. It is not ready to do this. So underneath all of these for Mitchell would be that. Authors would argue during this war. An author by the name of John Morrow, the Great War in the Air, that it was a call primarily for industrial mobilization and technology. [Inaudible] Holly, someone I've respected for a very long time as a historian, he says it's all about ideas. Yes, technology, weapons and ideas, his book about this period, but did doctrine, the thinking behind it. Some have argued like me, it's a lot about the people you can find. But ultimately, Mitchell would say, "that's all well and good. But without a proper organization, it is meaningless. You'll only be well intentioned people working very inefficiently." And that's where we find this progressive notion of his comes to play.

Mitchell's experiences set him apart from Trenchard who leads the Royal Flying Corps or the Italian Air Power theorist Giulio Douhet. I mean, Douhet spends most of his time never even seeing an airplane, never even having actually been in an aircraft as far as anyone can tell, court marshaled and in prison in Italy, on a front that's not very active and thinking about what air war would look like is one thing. Trenchard who moves rapidly from an Air Commander at the front to managing a large flying organization, eventually the Royal Air Force, sits far back as an organizer of victory and Air Power.

But Mitchell is an Air Combat Commander. To use contemporary language, he is the Combined Joint Forces Air Combat Command, the JFACC, we like to call him or the CFACC. He leads in two major campaigns, the Battle of St. Mihiel and then later Meuse-Argonne, a tremendous air effort, again, in support primarily of a ground defensive, primarily marked by Air Superiority missions, close air support and shallow

interdiction, a large effort for the St. Mihiel, single largest concentration of Air Power on the Western Front. A combined one; the French lend them aircraft and crews. The Italians were like night bombers. The RAF helps, but they don't really want to be under his command. It's very interesting, but we won't serve under an American at this point. But also the largest effort that he begins to put out, but his units will play an interesting part particularly the bomber units. There's an ordeal of the bomber squadrons at this time that pulled together in the first group to go over the front and then the second group that marks again the problem of preparedness.

If you can imagine showing up at a field, aircraft being delivered, and you and I are sorting out among ourselves, who by date of rank here is in charge? Never having flown together, trying to do essentially formation flying and navigation to a target. The American bomber groups in particular that go over the front will suffer tremendous casualties approaching 50 and 60 percent. If there is a history and tradition of pressing on against great hours in the air, that we will see over Schweinfurt and Regensburg later or over Hanoi, it begins in this war, the ability to continue to fly forward over mission against great odds. And the bomber group suffered tremendously. And they will never be Mitchell's friend. In their unit history, it's quite often they blame him. He, his notion of maximum effort or relentless offensive that he kind of picks up, sacrificed them, because they were really not ready to do the missions he asked. They perform the missions, but the losses were tremendous.

The Fighter story is very different were he meets Rickenbacker who becomes a lifelong supporter and others. Of course, I would point out, in fact, Rickenbacker and those people who fight in St. Mihiel and Meuse-Argonne are the second wave of American Fighter pilots, the first group having generally been killed off in fighting the German Offensive in 1918, micro offensives, the [Inaudible] at that time. So here, again, and you can go throughout the museum and see the names of who pulled it together, Raoul Lufberry and others who would lead essentially what would become a very happy story of the Air Superiority battle we can do, as opposed to the bomber one, who play a part.

So this part though, Mitchell has seen war in terms of what we almost would identify exactly today. Coming up with an air strategy, a plan of attack, tasking units to do certain missions, assessing the mission, making adjustments and keeping them flying, fighting and winning. I mean, you see right when you come in the door, McConnell's statement. You're job is to fly, fight and win and don't you dare forget it. And that's what Mitchell is about and is uniquely different in his early writings. The writings that would matter to me, and I think to when I talk to my students, is not the Mitchell's 1924 to 1925. It's the Mitchell from 23 forward. 23 back towards right after the war and he writes, here we have a cogent military professional concerned about operations. And I get a chance to talk about that.

Now, I got to tell about Naval Aviation a little bit, because this is another huge development during the war. Primarily, its success is not so much in scouting for the fleet as in suppressing what is the U-boat thread of that time, the convoy protection, U-boat hunting, anti- submarine warfare. This is what's going on. The technology of the day is of

course, amazing to try to bring this about. Unlike really land Air Power, it's a bit behind, a bit more primitive. And the launching and retrieving of aircraft at sea, is a huge, huge problem. Now, dirigibles, air ships, make a lot more sense.

Mitchell observes some of these. He knows the value and concerns to convoy protection, anti-submarine warfare. But as the war comes to an end, and what would now, we will begin the set-up would become the dominant fight of a sea power blazed operational templates that you might want to invest in for defense or Air Power, being land based Air Power. Mitchell has a blind spot. He generally sees Naval Aviation as a second rate to Ground Aviation. In a number, you can't produce enough mass and a bunch of issues that he looks that he's in. The problem is he sees.

Now, we looked at this picture for years at the War College and Air University. And I have not yet decided if it's an early catapult off the flesh deck carry which is the great breakthrough for Naval Aviation, that they're pushing the plane going fly or if there is the resting hooked crew, that the plane is landed and they're trying to grab it before it goes off the end. So, we're not quiet sure. But when Mitchell sees this, he's very skeptical in a way that he's not skeptical of the challenges facing land Air Power. I will keep in mind that he did see weird experiments. The French in particular had a thing that they want to do off the back of ships called tangential Air Power. Now, if I was back in Maxwell, I usually have this rubber plane that little kids play with. And I have it on a string. I'll use this. And the notion was they put like a [Inaudible]. And anybody's been to a tiny fair might remember these rides. You kind of start down here and then it spins around and eventually gets faster and faster in the way you go. And the idea was if the French Navy would have a few of these ships with [Inaudible], you'd hoist, it propels the plane up, it's being to spin around like a toy, and then you go fly. Well, they tried it a couple of times and the plane didn't fly like that.

Now, there's another unique story about people in Aviators. Be it shooting someone off a gun deck, off the turret of a gun in a carrier, or from an aircraft carrier or as you can see somebody dropping, setting the world free fall record from a 20,000ft. I insist, you can always go to the club on a Friday night at the right time and induce an aviator to try anything on Monday morning. Now they may, by Monday, may go. "I said, 'I do what?' Oh, yeah, yeah. I get on the plane, right [inaudible] here, we got this all squared away." But this is almost a tremendous time of innovation. And Mitchell always looked a scant, skeptically Naval Aviation. And there's still issues today that follow us about the ability to create enough mass from these things versus their expense. And that's what he draws on the lot.

Now, the post-war period for Americans, the bottom line is this, too much to do and too little time before the war ends. Many American Aviators working for Mitchell and back in Washington and in supporting the war in Europe were waiting for 1919, plan 1919. More crews were ready. More squadrons were ready. The aircraft was being fine-tuned. We were bringing new things on line and the Germans gave up. And that was just a shame. And the new technology, well, if you were there trying to make a proof of test, it's like, what do you mean they gave up. Bring them back on the war for at least another

6 months, because we've got some stuff to show you. And it was always a sense that we never had a chance to demonstrate the full range and power of Air Power. And the Brits were trying to move there with their independent Air Force. Now this is [inaudible] to appear. You have one here in the museum. It's the Kettering Bug, if I'm not mistaken. It's a small little one. It's earlier than this. The gyroscope makes this possible. This was being designed near the war's end and is extended in 1920 and Mitchell claims in 1928 that they were out at Mitchel Field Long Island. That's with one L. It was named for John O. Mitchell, Mayor of New York, not for Billy. Usually that's messed up by people, not that it's really important. It's just a small airport in Long Island. But he claims they fired 6 of these at a target south of Trenton, New Jersey. And they all hit.

Now, I've been wondering. I went to Graduate School in Rutgers and that's in New Jersey. I kind of don't know with the South Part. And I'm thinking, are they shooting an Ocean Grove Naval Air Station? I mean, is it true that the Navy is the real enemy? But we're not sure what happened. But the post-war period says this, the American Air Effort that was promised by the Wilson administration does not turn up. The DH-4, the only aircraft we get over there is basically an observation light bomber that's already obsolete. It serves very well in the war. But nonetheless, in terms of cutting edge technology in a war that changed very rapidly, by the time it was fielded, even with the Great Liberty engine that you can find here, it's no longer the front leading edge from the design they were working from. All kinds of post-war investigations into what seemed to be the American Air effort that never was and hence these plans for 1919 that don't come to fruition play a huge part in a post-war wonderment about this that is only retrieved in part by people like Billy Mitchell, Eddie Rickenbacker, and others, because the American Airmen, the individual retrieves in the mind of the public the failure of the American Air effort by their valor and success. Mitchell, of course, is noted as America's leading aviation expert.

Rickenbacker, clearly the Ace of Aces, is probably second as the most popular American hero of the war only to Alvin York. And, of course, that and so many other dominant things of the Militant American experience, standing up to oppression-aggression and this sort of idea of militarism and Alvin York's background clearly makes him probably the leading American hero, the real, sort of, men's hero, the common men's hero. And Rickenbacker, of course, flowing into that. And he has a great story himself and you can enjoy that here, who he was a driver for, how eventually gets into the air business, how he becomes the leading Ace which quiet often was seen as a curse kind of like sports being named number one in the poll, because he's not always a leading Ace and there's others, and by and large, and when he became the leading American Ace, you got shot down and was injured or killed. Of course, Rickenbacker's survives the war.

But there is a cultural hero here that fits a machine-age America. Again, the dominant partner is the man. In aviation, of course the promise of the Golden Age of this time is tremendous, and Mitchell will understand that and occasionally trade on it, trade on it very heavily as he becomes more and more frustrated in thinking that he had this leverage with the American public. The allure after the war and this is across the board in aviation thinking, becomes strategic attack, the bomber. Would it be an alternative to the Trench?

Would there be a next Great War? And many people are just waiting for round 2. When will be the next war?

The question that comes into play quite often a strategic attack is, how best to employ it? And here, we find vast differences in the early writings of Billy Mitchell from those of perhaps Douhet. As he goes on, you can't find much difference between Douhet and Mitchell. But in his writings, it is not so much the bomber always gets through. It's not so much; this is how we would just destroy things. It's not simple mathematics equations done by someone who'd been artillery officer which is Douhet's main background.

Mitchell looks again at America and he thinks also about Europe and the rise of urban environments and the complexity of urban life. And he begins the hunt for the right target set that essentially can provide pressure on industrial nations, peer nations, in war through the air. And he locates a number of these targets as to make sense to him, electricity. So he's becoming crucially dependent on electrical power, that and potable water. And many of his ideas are all those we would argue to be non-lethal. What if I dropped just die into the reservoir as it feeds cities and the water looks green now.

And his thought was, what you could do is create panic in the cities and not destroy so much as make it almost unlivable that people would be forced in the countryside or out, create a crisis to the government. And that would somehow affect the will to continue fighting. It's a doctrine of disruption, is what he sort of look in at. And that plays an interesting part in how he also sees in many people of his class coming out, essentially a very wealthy Patrician class American, that the cities are both interesting, fascinating, but also sort of dangerous, scary places for Americans.

The immigration issue, lots of immigrants. My last name is Grumelli. It's this people from the southern part of Europe were coming in. And there's a feeling that also these cities are fragile not so much, because of independence, but who lives their mainly, very excitable Italians who talk with their hands. So the bombers come over. They're going to be like, 'Oh my God. Mama Mia' and they ride off. And until there was an issue. And this will play out as court martial where very serious military professionals, aviators and ground office will debate the efficacy of bombing against a population and generally says, well, the right kind of people just won't crack. But other people will. And if you're concerned about who lives in your cities, which is also a part of the 1920s and then even into the thirties, and these notions of Thy Brother's Keeper that comes out about where organization becomes social progressive organization. You begin to think, Ah, the cities is an interesting place hubs of ministry, government, power and fragile. And that plays a part in his initial thinking about perhaps the greater role [Inaudible] is Air Power beyond supporting the land campaign or autonomy and independent action.

Now, this is Mitchell with his very, very hard-pressed boss, Major General Mason Patrick, Pershing's West Point classmate, placed in charge of aviation during the war essentially to stop an intermural fight between Benny Foulois and Billy Mitchell and a few others of who should be in charge. Mitchell, of course, gets the best job. He's the one who is Commander of the Zone of the Advance. Now that is something uniquely

American, the Western Front from 1915-1918, doesn't have a lot of advance. But we don't term it the Front like everybody else does. We call it the Zone of Advance. And then there is the Zone of the Rear where Benny Foulois is making sure boxes are going forward and the stuff like that. But Mason Patrick played a very interesting part in Mitchell's life, in his professional life. I think he tries to protect him very often. He has a talented subordinate who's also at times very, very difficult to work with or makes your life difficult. "Billy, did you really go out and say this to the press that the Navy is now obsolete?" "Oh, yeah boss. But, it's not really what I meant. I meant it, but I didn't mean it that way, and I didn't think they take me literally." But Patrick plays a big part. In their discussions also, are about what is the future of Air Power? What should the operational template be worth asking the American people through the government to invest in? This is a topic that is important today for all the services. We ask the American people to provide the funds to invest in operational templates that we think make sense. And this is what most of the thinking is about.

Is it just strategic attack, initially for Mitchell and the Air Service, no, which sets Mitchell apart from Douhet and even Trenchard in England is he is a full spectrum Air Power thinker, close air support, interdiction. Yes strategic bombing. Yes fighters and air superiority. There's no such thing in his mind as the battle plan. Early on, he is looking at what can Air Power do across a large range of security issues and operational problems. And he pushes the young aviators and he experience better into that war to think along these lines. It sets up some very interesting reading between people up here in research and development at this time and people at Aberdeen Proving Ground, Maryland, in doing research and development of weapons, air frames and weapons. What mission? What role or mission is this functional specialization you're going to emphasize? All this is coming very heavy at the end of the war and, of course, Mitchell's belief in a proper organization will make this smoother. And we all understand. That's code for independent Air Force.

Mitchell spends a lot of time going around the different units and talking on these particular topics. We'll take for example his notion of full spectrum Air Power. The United States Air Service is one of the last of the modern air services to keep a ground attack wing. This is a part of his full spectrum thinking. We were the last to give it up. And budget precious time to make that happen. He talks about it again. What do we do? What is the nature of air war going to be? And what are the large security concerns which, of course, at this time; he is focusing on the Pacific. This fits a dominant trend of what is seen as the rising problem in the Pacific. It fits also why if you ever wondered and you look particularly who publishes Billy Mitchell and his articles, it's the Hearst Press. And the Hearst Press being based primarily in California in the West is particularly concerned about Japanese penetration of the western hemisphere, immigration, and their concerns in utilizing power. It hardly sell militarily in nearly twenties, but one that has a strategic vent, the defense of the Philippines, the defense of the Panama Canal, interests in the Pacific. Mitchell is constantly pushing and thinking about there's a threat here. He saw it when he was a young officer in the Philippines like many army officers. There was a Japanese hiding behind every tree during the insurrection and later.

So, he is projecting what are long notion. How does Air Power project from the continental United States? How do we defend our interests? And this plays a large part. He also talks about what we would argue as tactics. Early on, there is no thought the bomber will simply get through on its own. He believed very clearly based on what happened to his bomber groups in World War I that the bomber needed to be defended. It needed safe ingress, freedom of the air to operate and maneuver. He talks a great deal in his early writings on that issue alone. And in fact, he says, “you have to bring the enemy Air Force to bear. You must gain Air Superiority to open up the freedom of action that your bombers can do in a way that makes it reasonably cost effective when it comes to losses.” What is an acceptable loss rate?

In our discussions and readings about World War II, the combined bomber offensive, what normally happens to the 8th Air Force or the bomber command? How long can pilots and aircrew keep flying as the loss rate mounts? What is an acceptable loss rate? And Mitchell believes clearly, Air Superiority is the key to this, even if it means and he writes in his notes, “do not show this to the bomber crews if we have to use the bombers as bait.” Now, if you’re familiar with Operation Point Blank in World War II, when Arnold says simply to the American aviators in Europe, ‘Destroy the Luftwaffe in the air, on the ground, or in the factories.’ You send the bombers into Germany; either the Luftwaffe will come up and fight and you can find them, or you can destroy them if they stayed down. So is it bait or is it a way to draw the enemy to you to be destroyed or not? Or you gain anyway indirectly. Well, if my effect is to go in to bomb and you don’t oppose me. That plays a part. So his notion of if you sometimes have to use the bombers as bait to draw them to, to be destroyed just don’t let the bomber guys now. But his hanger fly is basically all about that. He spends a great deal of time working on operational and technical problems that he want solved by what is a very... It’s a golden age of flight, because everything seemed possible and nothing was known. And that plays a part in the possibilities. We are constrained essentially today by our history of knowing that what works, what doesn’t. And perhaps, we constrain ourselves. I can’t answer that question, but we do know that understanding, yes, we actually can do what a physical that determines if somebody should go to UPT, Upgraded Pilot Training or not.

The other elements of this, of course, will set us up in the early twenties of eventually the administration of Calvin Coolidge, a Republican administration elect. I usually tell my students, I said, ‘Be careful if the Republicans get in power, because they can cut the defense budget easier than Democrats.’ You may not like their other policies, but they are always considered weak on defense. Well, after the First World War, when Republicans are swept in to power and eventually, Coolidge takes over. They’re very serious about getting rid of something that didn’t exist before the war, the budget deficit. And this is the period known as normalcy. And normalcy would affect what it seen as the major discretionary program at the time was the military. And many of the people that come out of this period had fought on a large world stage. So very talented military professionals, I’ve seen their world shrink in terms of opportunity, in terms of the ability to seek things done. And it sets up the climactic battle of the 1920s and the earlier power controversy between sea power as a format for defense or air power. And Mitchell is the

Air Power advocate. This comes to bear eventually in 1921 what was known as the Naval Ordinance Test of 1921, the Ostfriesland sink.

Here's Langley at that time. Mitchell puts together the First Divisional Air Brigade. They're on parade, looks very nice. You know, big planes in front, little planes to the rear, dress, right dress, off we go. It's a fun time. And they're going to demonstrate the ability to sink a battleship. Of course, the Navy objects. They want to go and see what the threat of air attack is to battleships. And, of course, Secretary of the Navy at the time, dances and says, 'It can't be done. I'll stand on that battleship. And then, you go ahead and bomb it all you want. But I'll stand on the battleship and nothing will happen to it'. And I'm sure that his aides and staffs, you know, what really boss says is not a good idea. Why don't we just watch from the boat and don't go stand on the ship which is a good idea in the end. Mitchell brings together a team. It is high, high stakes. He has placed every bit of his sort of fame. He's a rock star of the aviation world at this time, his post-war essentially reputation on the line in essentially calling out that we're going to do this. I once made the mistake. And I'm going to share this with you now. I said, in his regard, what will happen is, Mitchell will become the father of Naval Aviation. I said this to a group of Air Command Staff College students. We have naval officers in the group. Some of them are aviators. One had been the aide to what was then the Deputy Chief of Naval Operations for Aviation who shot an email to his boss, 'I can't believe this guy said that.' He talked to someone on the Air Staff who called the AU Commander, the three star general, General [inaudible] at the time. And he said, 'Grumelli, did you really say this?' I said, 'Yes, I said it. Yes, I know its Admiral Moffett.' But I was trying to make a point. It was meant to be funny. Well, it wasn't very funny as his emails are going back and forth.

So I'm going to say this to you that Mitchell is not the father of Naval Aviation, but he is. There she is. You can see even more wonderful evidence right here. They actually have film. I only got pictures. And I only have this one tonight. And this is the Ostfriesland, survived the Battle at Jutland, watertight compartments was seen as really the first rate naval technology of today and probably couldn't be sunk by an aircraft. Flutter around and play with a couple of heavy weapons underneath, who's going to do it? Mitchell puts a unique team together. Knowing there his Airmen there, he borrows the ideas and the research being done by the Italians. He has on his staff a couple of Italian air attaches. And they're very interested with regards what Douhet says about Navies are irrelevant. They got a peninsula. And they got a lot of water around it. And they don't know about controlling the sea lines of communication in Italy. And they spend a lot of time thinking about how your destroy ships. And one thought was, it's kind of like a tank today, heavily armed on the top and the sides, a little bit less armored on the bottom. And the thought was that you had to hit the ship, but you would something called Water Hammer. Drop big enough bombs next to the ship, close enough, so that the Water Hammer would crush into the hull, get it below the water line. That might help it sink. Hey, hit the thing is nice too. But we're not quite sure how much damage that can do. And he talks in his writing about the helpfulness of these couple of Italian aviators and their own tests and bringing these ideas to bear.

And then, of course, there's a number of other ships that are sunk. There's a submarine that goes down. The Frankfurt, the light Cruiser goes down. And the big day though is here. Can you imagine the press? Can you imagine what the club was like the night before? And none of that drinking now, boys. It's prohibition. Now, let's get ready to fly tomorrow. And yes, he cheats. Yes, he cheats. He knows he's cheating. He doesn't follow the operational orders of the day. The ship has taken enough hits. It's listening and then he makes a maximum effort. He sends his Martin MB-2. There's one right here. He sends his 2000 lb bomb which interestingly enough, we don't have going in the World War II, and they send that thing to the bottom. And the Navy cries foul, loud and long. And there's a Board. There's discussions and there's discussions. And Mitchell quite frankly believes he's won the day. Proof of test, why are we going to talk about this, give me the money. That's really, in a way, give me the money. Now, I would tell you that it appears that the roles and mission about what becomes coastal defense in Air Power and Sea Power looks simply like a budget grab. The evidence of the staffs looking at these problems and looking at the defense issues see it as a very serious issue of coastal defense at this time and power projections at the Pacific, that Air Power would be dominant, that in fact, they're incredibly serious about what's going on here and proving that in fact, the money should be spent to improve Air Power over the sea as opposed to spending more money to provide ships on the backs of the Navy. The end of this, of course, leads Mitchell to come up with his next great thinking called Expeditionary Air Power.

And this is right after the Ostfriesland sinking. And we deploy the 1st Provisional Air Brigade to West Virginia near Wheeling, because the [inaudible] county war. And this has to do with minors essentially having to revolt, because they only get contracts signed like every 20 years or 10 years. And it was a lot of power. And I thought and it is one of those things that we're happy never happened, that we actually did not employ in support of local authorities' our own Air Power at this time. What it did share was we could move a lot of aircraft very rapidly and shift in place of their [inaudible] do things. And Mitchell begins to write at this time in his famous little thing called "Notes on Multi-Engine Bombardment" was all about moving stuff back and forth. And this comes out, and he goes to writing about what is key to the future of American defense in power projection is the ability for the Air Power and air aviators to do expeditionary operations.

He talks about vertical envelopment. He wants his own Marines, mainly paratroopers, that he could then go in, see his fields, provide [inaudible], bring in Air Power and fly out from. He also, I've not seen the movie, but I heard it's quite good, called "Transformers." He even has ideas that there could be tanks that could be designed, that they could fly to the place, land on the ground, and convert themselves into a tank. I mean, it'll be a whole of a trick. And I'm sure Boeing could come up with one or Lockheed would compete. And we might have something there. But he starts looking at this power projection issue of island hopping and seizing advanced operating bases for Air Power which becomes really an operational scheme in the Pacific in the next war.

In the final analysis of this controversy period, Mitchell is all about organizational correctness, a proper organization of independent Air Force. He has a very over-arching aim. It involves, not only in this what we would think of an Air Force, but he wants

Naval Air Power which is on the British Model initially that Naval Aviation became part of the Royal Flying Corps or the Royal Air Force. And he wants commercial aviation in his one large department of the air. In this lies the seeds of his own problem. There are too many communities of Airmen who are not willing to be part of one large overarching organization. Civilian and commercial aviators are not particularly fond of this idea. Naval aviators want to go to sea in the back of the fleet. He does have a strongest support among essentially industrial based people thinking, "Ah, here's the place we can keep these industrial lines going and Airmen. But by and large, it's too overarching of you. But it comes back to the notion of organizational innovation, the right expertise, the right training, the right questions to be asked, the right answers to be sought, efficiency. And here are the place that we see technological innovation very clearly as we walk from the early flight all the way through the Cold War. If you look carefully, as you examine the aircraft and their markings, you see, the other thing that the United States Air Force has a legacy of doing which is organizational innovation. I see the remnants here of the Cold War Air Force that no longer exist, Strategic Air Command, Tactical Air Command. This sort of things have changed probably more than any of the services the Air Force in its history has moved forward to provide also organizational innovation. Can you have one without the others is Mitchell's questioned to you, is his question to us today in this business.

I asked a student as a matter of fact, in his oral exams or school events there in Air and Space Power, they do another year after ACSC. They write a masters' thesis. They have oral exams. And I said, 'What is more important in your observation, technical innovation in the aviation business in Air and Space power or organizational innovation?' And he was all over technical innovation. And then he looked blank about organizations and said that I haven't even thought about that. So I said, 'All right.' And there, you have a conversation. It's not always about testing. Sometimes it's the last conversation. But quite often, the movements of a Cold War Air Force or a World War II Air Force or a Post Cold War Air Force or an Air Force structured for the long war is something Mitchell would want to talk to us about. What is the proper organization that brings about efficiency, that brings about the right people in the right place?

Second wife, is a little bit of a wingman story here. She's not always happy about Mitchell in this period. He paid for this himself. It was not done with government TDY funds. His wife came on his own dime. Just want to make that known, we don't want any congressional investigations at this point. A lot of the evidences gone, we probably destroyed the tapes. What the notion here, why he's become in fact very, very frustrated that his success, I argue in 1921 with the sinking of Ostfriesland does not produce the changes, the money and the Air Force he wants. His frustration gets channeled in almost destructive ways. Advocacy that becomes closest is zealot advocacy, a discourse that becomes increasingly strained. And then his personal life when he gets his divorce, it's not particularly an amicable divorce. He marries essentially his second wife here, Betty who was a Detroit [inaudible] heiress.

There's a lot of things in his personal life as we come to what would be the climax, we all think about the court martial that essentially has now in a life that's also personally

spinning out of control. And that's the nicest way to put it. One can only imagine trying to achieve one end professionally and then seeing your personal life not going as well as it should be. And, of course, he'll be shoved off to San Antonio away from DC, might probably, but the Army says, 'We're just tired of hearing you.' And that will then lead eventually to the court martial when initially he says, 'In the wake of the disaster, the loss of the naval dirigible, Shenandoah, the death of Commander Lansdale, the loss of Commander Rogers and his crew during the open water flight, the first attempt to go from San Diego all the way to Hawaii.' And the press comes to Mitchell and says, 'What do you have to say about these twin disasters?' And he makes this incredible typed-written, I mean, it's all set up in many pages. But the most starking thing to remember is he says, 'It's criminal negligence, incompetency, and almost a treasonable administration of the National Defense by the Navy and War Department.' Now, Calvin Coolidge is President. He's not about to accept this sort of outburst by a national figure in uniform. It probably produces up until the MacArthur-Truman controversy, the largest talents of civil military races in this country. It will culminate, of course, and was almost a three month and a little bit court martial event.

There are three trials actually in one. The army is flabbergasted. When they bring him to trial, they ask him, 'Did you make these statements?' 'Yes, I did.' 'Do you deny making these statements?' And they go through this like four times. It's in the record. And they go down, 'Will you submit that this officer has committed insubordination and conduct [inaudible] discipline? We're done. Case closed, can we now have a judgment?' And the court martial board says, 'Well, we want to hear what Mitchell has to say about why he said these things.' They merely go up and say, 'But wait a second. Truth is not an issue here. Truth in insubordination doesn't matter.' It's what I explained to Cadets at the Air Force Academy. I said, 'Look, I'm out at Rutgers University and I want to hold up a sign that says the person in that university is a bad person. And I use bad language; I don't go to jail over that. Now if I ask you as a Cadet to go walk around the center of the Harmon Hall with a sign that says the superintendent of United States Air Force Committee is these things, we court martial you.' He could be all of those things. But truth is not a defense. So the Army is just caught flat footed. When Mitchell's allowed to mount a defense at this trial, it's really not the kangaroo court that some people would have you believe. This is what gets different. On the Board are four of his closest friends. Two of them are godfathers to his children. Frank McCoy is a key one, General McCoy at this time. They push quite often. Let Mitchell have a say, 'Maybe, in fact, there's something to this.' And he lays out his defense. And the Army calls in what becomes a new prosecutor. And the two more trials have to take place. One is the Army trial, a rebuttal trial. And then, they will also put on a Navy rebuttal trial to essentially attack not the truthfulness of the statements so much as the evidence he tried to lay out that says we were killing aviators every day, because the longer discussion, which you can sense both frustration all that backs to the war, has to do with betrayal of Airmen, unpreparedness for war, and a continuation of what he saw as policies.

Now, the thing is the Army comes across and quite frankly, their rebuttal trial is beans, bullets and budgets. We don't got a lot of money. Aviation is actually sucking up more money than any of the other branches of the Army. We're not trying to starve or be mean.

We just want to have a lot of money to spend around. And they already get \$2 for every dollar spent on the infantry or the artillery and anything else we got. So that's our problem. We're not trying to do anything wrong to them. We're certainly not stifling them. The main leading prosecution witness in the defense trial though has to do with the fact that in his very long statement, Mitchell says, 'We are killing more and more aviators every day.' And it happens to be a guy named of Major General Ireland. He's a Surgeon General of the Army. If you have been to Fort Knox, the hospital there is named for him not, because he testified. He produces what is now scientific aircraft accident investigation procedure. We would recognize them today, done by Airmen that shows A) Per flying hours, as matter of fact, over the last five years, fatalities and the accidents have decreased tremendously. By and large, they're contributed not to poor equipment, but pilot error. He is the only witness for the Prosecution the Defense does not cross examine. They would even cross examined, Commander Lansdale's widow when she comes up and says, 'Oh, my husband told me about this.'

And here's an example of getting the wrong lawyer. Mitchell's lawyer, Congressman Reid is not helpful. And he puts her into tears in the cross examination. That is not playing well with the press or anyone else in the room. Basically, he said, 'I think you're just saying what the Navy told you to say Mrs. Lansdale.' That doesn't play well. The Navy's trial has a significant problem for Mitchell in that these guys just don't stay dead when they're supposed to be dead. As Lansdale and the crew to Shenandoah suffered the disaster and the fatalities, Commander Rogers shows up. He gets rescued. A Japanese troller comes along and finds their seaplane out there. And he comes and testifies. And the first question is, 'Did nonflying officers of the Navy plan your mission or in any way conduct how you flew out there?' And he goes, 'Nope, absolutely not. We did it ourselves.' He says, 'Well, what would account for this disaster of you disappearing?' He says, 'Well, we misnavigated. And we ran out of fuel. And we got lucky that someone picked us up.' That's a very telling that Mitchell says, 'They're killing them. And this is now, we just misnavigated and it's a long way and we ran out of fuel.' So that hurts when the guy that supposed to dead shows up not dead. And the trial continues like that almost throughout, statistically, by other evidence.

What Mitchell tried to show was treasonable administration and negligence and incompetency falls apart. And it falls apart in a very unfortunate big way for him. Al Hurley who was a onetime head of History at the Air Force Academy wrote the first, I think most standard biography on Billy Mitchell. He looked at the court martial transcript later when he writes an update to his book in 1975 said, "I didn't really spend a lot of time with this, but the more I saw it, it doesn't help Mitchell's case." The trial is not necessarily kangaroo court. It wasn't pre-determined but it does bring a crescendo and an end to what would be the controversy of his time.

And for many ways, the rest of Mitchell's life is almost very sad as he goes off. I have wrestled, and a few of us have notion of, okay, I understand frustration. And I can understand thinking that things should get better. And you've made this test and there's a lot of stuff going on. What though is the hurry? I mean, there is no visible real threat in 1920 or 1924 that we're going to be attacked eminently. Yes, we're looking to the future.

But why must you take this course to such an aggressive level. What is the urgency here that many ways makes him lose what should be some political savvy. He's not dumb. His father was a Senator. He understands how this works. Quite often, he is talking to Congressmen. And some of us have, many historians have looked at this and other writers looked at this and some have been scandalous. One author seeing one line and a medical report done in Walter Reed and Billy Mitchell said, 'He was on a drunk for twenty years.' Now having been treated in medical military facilities and knowing, I mean, one time I said, 'Do you have it with your dad?' Yeah, occasionally we had disappointment; he says has issues with his father. Am I just a childhood or something? But to say this is essentially based on one line and one medical examination where he says, 'Are you drinking?' and requires his probation. He says, 'Yeah, I've been drinking' and take that essentially to indicate you're on a bender. And that's why your behavior is so erratic is another issue. I just don't buy it. I think it's scandalous to say. Some have talked about his ambition. Some have talked about the fact that he is the third generation, how do you make your mark? I will offer, well, that is I think somewhat true that Mitchell was ambitious. He was talented. He wanted to be the head of an independent Air Force. There's no doubt. His letters to his mother make that real clear. "Dear Mom, I'm going to camp. Please send money, because I'm going to be the Chief of the Air Force." She had a lot of money and she sometimes sent it.

This is his brother, John Lendrum Mitchell. John goes to France in 1918, becomes an aviator and dies there, under Billy Mitchell's command. Billy Mitchell has to write the letter home to his mother about the death of her youngest child. Whether or not you have been on the receiving end of that or the one helping draft and write these letters, one can only imagine how that must have felt. And there is a continuous theme in Mitchell's writing about aviation and preparedness and betrayal that is consistent, that we lost people because we were not ready to do this business in the air.

How long can you expect first rate Airmen to fly in third rate equipment? How long will you rush young men through training to the fight? In his own little bit of writing about his brother at this time, he says, 'Well, he flew in a weak aircraft.' Now that was code for used French aircraft that the French Air Force would not use themselves. That he essentially crashes in that. Although, he believes that it's actually his brother's rush through pilot training, that a fight could have happened on the landing and then the weather is marginal. But in any case, his brother dies under his command and he thinks he dies because we didn't have what we needed for Airmen. And I would suggest to you that that has an awful lot to do with this urgency that Billy Mitchell feels. And you can look at that in a lot of different ways. When you read the longer statements about, 'We owe this to our comrades we left behind in France who were dead, because of essentially being betrayed without the equipment they need.' A constant theme we can find in almost any war of course, I think that plays a part.

And with that, I leave you with this sort of wonder picture of Billy Mitchell, he has that high collar. And I thank you for your attention and for coming out tonight.

[END]