“we’ve saved a lot of aircraft over the last 60 days using that tool”

Lt Gen Michael Conley

Commander, Air Force Special Operations Command

Senate Armed Services Committee · 12 May 2026

THE NEW BOMBER MAFIA

Lessons from Maxwell for AI Innovation in the DAF

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BESPIN · AFLCMC/GBW · Maxwell-Gunter Annex
DAFITC 2026 · Track 1

THE ARGUMENT

Two organizations, one installation, ninety-one years apart. Both bet on immature technology ahead of policy. One of them mis-targeted for a decade before finding out.

This talk is about how to be the second one.

I

MAXWELL FIELD

1931 – 1941

I · MAXWELL FIELD 1935

The Air Corps Tactical School

- A schoolhouse, not a headquarters. No aircraft to allocate, no budget authority, no operational command.
- A small faculty of instructors, mostly majors and captains, teaching the next generation of Air Corps officers.
- The same installation BESPIN sits on today, under the same wing.

What they had instead

A curriculum. The authority to define what the next generation believed was possible.

They had no ability to direct anything. They had the curriculum, and that turned out to be enough.

Find the load-bearing node in an enemy economy. Destroy it precisely. The whole structure collapses without invasion.

The industrial web theory

I · THE INSTRUMENT

The Norden bombsight

THE CLAIM

A pickle barrel from 20,000 feet.

THE TEST CONDITIONS

Clear skies. No flak. No fighters. Known altitude. Practice ranges in the American Southwest.

The instrument worked. The conditions were the assumption, and nobody wrote the assumption down.

They were teaching a doctrine the Army had not adopted, using an aircraft the Army had not bought, against a theory the Army did not hold.

They did it anyway, for ten years, in a classroom on this installation.

They were right about the direction of travel. Airpower would become decisive. Precision would matter more than mass. They built the intellectual foundation of an independent Air Force.

And then it met weather.

II

CONTACT

EUROPE · 1943–1945

II · THE ASSUMPTIONS

What did not survive contact

Bombers can defend themselves.	They could not. Escort fighters were not optional.
Skies over the target will be clear.	Central Europe is overcast most of the year.
Accuracy in testing predicts accuracy in combat.	Circular error grew by an order of magnitude.
One node collapses the whole web.	The web routed around every node they hit.

60

bombers lost of 376 dispatched
17 August 1943

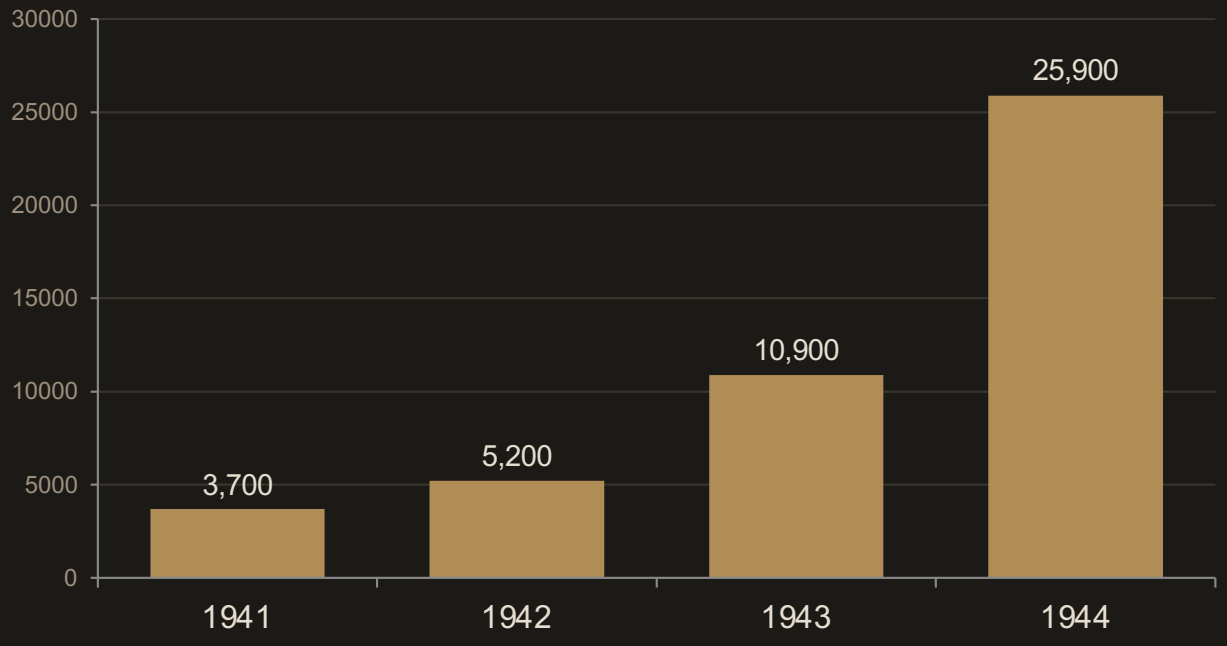
77

bombers lost of 291 dispatched
14 October 1943

The target both times was ball bearing production at Schweinfurt, chosen because the theory said bearings were the load-bearing node.

Commonly cited figures.

German fighter production



Approximate figures from postwar surveys of German production.

Production peaked in the fourth year of a campaign designed to collapse it in the first.

The bombsight was not the problem. The bombers were not the problem. They optimized a constraint that was not binding.

Right technology. Wrong bottleneck.

II · TWO CORRECTIONS

The same doctrine failed twice, and produced opposite answers

EUROPE, 1944

Escorts, then oil. They abandoned the tenet that bombers could defend themselves, then stopped attacking the constraint the theory had named and went looking for the one that was binding. By late 1944 Germany was building aircraft it could not fuel.

THE PACIFIC, 1945

Precision failed again over Japan, for different reasons. The jet stream, the cloud cover, dispersed production. The answer there was to give up on precision entirely. Low, at night, with incendiaries, at a human cost this room should not gloss over.

Retarget, or stop believing targets can be found. Serious people, reading real evidence, went both ways.

II · THE FORK

Contact tells you the theory was wrong. It does not tell you which correction to make.

Some of us are retargeting. Some of us are putting AI on every workflow we own and calling the coverage a strategy. Both feel like responding to evidence.

II · THE VINDICATION

Right about the direction.

Forty-five years later, precision did become the organizing principle of American airpower. It arrived on a stack of guidance, sensors, navigation, and computing that did not exist in 1935 and could not have.

They mistook the destination for a description of the road.

II · THE FRAMEWORK

Four separate failures

01

Wrong about maturity

The technology could not yet do what the doctrine required of it.

02

Wrong about the bottleneck

They targeted the constraint their theory could see from a classroom.

03

Too slow to update

Ten years of conviction, and the correction came from the field.

04

Overcorrected

When the theory broke, one theater retargeted and the other stopped targeting at all.

Hold on to these four. Later I am going to ask which ones we are currently committing.

GUNTER ANNEX

2026

III · THE SETUP

A software factory delivering for AFSOC, on the installation the schoolhouse used to sit on.

Three AI efforts.
Three different levels of policy sanction.

The results do not line up the way you would expect.

III · CASE 01

The fully sanctioned one

01

- A purpose-built commercial AI product for RMF artifact generation.
- Squarely inside policy. No grey area. A real vendor behind it, under contract.
- Exactly the kind of AI adoption the institution is comfortable approving.

RESULT

Meaningfully less time saved than we projected.

The demo had clear skies. Our review queue does not.

III · CASE 01 · WHY

Artifact production was never the bottleneck. The queue is human review, assessor trust, and an AO's willingness to accept risk on machine-generated evidence.

Faster paperwork into an unchanged review pipeline just means the paperwork waits.

III · THE MIRROR

1943

Targeted ball bearings, because the theory said bearings were the binding constraint. The German economy routed around it.

2026

Targeted document generation, because our compliance theory said paperwork was the binding constraint. The review process routed around it.

Both times, from the outside of the system rather than from contact with it.

III · CASE 02

The one policy has not reached yet

02

- AI orchestration inside the development pipeline. Generate and iterate in a low environment, promote deliberately to high.
- Commercially available capability is moving faster than the policy written to govern it.
- Waiting for the policy to arrive is itself a decision, with its own cost.

RESULT

Working. Quietly. In production.

So the honest question is not whether to wait. It is what governance looks like in the absence of policy.

III · CASE 02 · CONTROLS

What we did instead of waiting

- Data handling boundaries. What class of data is allowed to touch a commercial model, and what never does.
- Environment separation. Generation happens low. Promotion to high is a deliberate, reviewed act.
- Human review gates. No machine-authored change reaches production without a named human approving it.
- Audit trail. We can answer what was generated, by what, and who accepted it.

III · CASE 03

The one that began in contact

03

On the first day of Operation Epic Fury, aircraft were operating in a hostile environment and intelligence was reaching cockpits too slowly to matter. A small team applied available machine learning tools to the transfer problem and put humans on the loop rather than inside every step.

20-30 min

human process to get national-level intel to a crew

2-3 sec

downgraded and available in the cockpit

As described publicly by the AFSOC commander in SASC testimony, 12 May 2026.

III · SIDE BY SIDE

Sanction against impact

	POLICY SANCTION	OPERATIONAL IMPACT
01 Compliance artifact generation	Full	Marginal
02 Development pipeline orchestration	Unresolved	**Substantial**
03 Operational intelligence transfer	Driven by the fight	**Cited to the Senate**

The relationship runs backwards.

IV

THE INVERSION

We govern AI hardest where it matters least.

Institutions authorize AI where failure is cheap and invisible. They hesitate where failure is expensive and public. But value sits almost entirely in the second category.

Risk aversion and risk management are not the same activity.

Five patterns

01	**Target the binding constraint, not the visible one.**	Ask where the queue actually forms before you buy a tool for it.
02	**Validate against contact, not against a schoolhouse.**	A demo under clear skies tells you nothing about central Europe.
03	**Put the human where judgment changes the outcome.**	Not inside every transaction out of ritual. Consequence and reversibility decide where.
04	**Publish your failures faster than your successes.**	Ten years of unchallenged conviction is how the first Bomber Mafia failed.
05	**Write the policy for what's in front of you.**	If you cannot hand your controls to a policy shop, you do not have controls.

IV · THE CALLBACK

Which are we committing?

01	**Wrong about maturity**	Partly. Some of what we are promised is a pickle barrel in clear skies.
02	**Wrong about the bottleneck**	Demonstrably. We bought AI for the paperwork and the queue never moved.
03	**Too slow to update**	Not yet. Contact corrected us in sixty days, and we changed what we believed AI was for.
04	**Overcorrected**	Ask me in a year. The pressure right now is coverage, not targeting.

The first Bomber Mafia never got to write this slide. That is the whole argument.

Ninety-one years, one installation.

The first group was right about the destination and wrong about everything between here and there, and it took a decade and a great many crews to find out. We get to find out in sixty days. That is the whole difference, and we should spend it.

Thank you.

Questions

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