



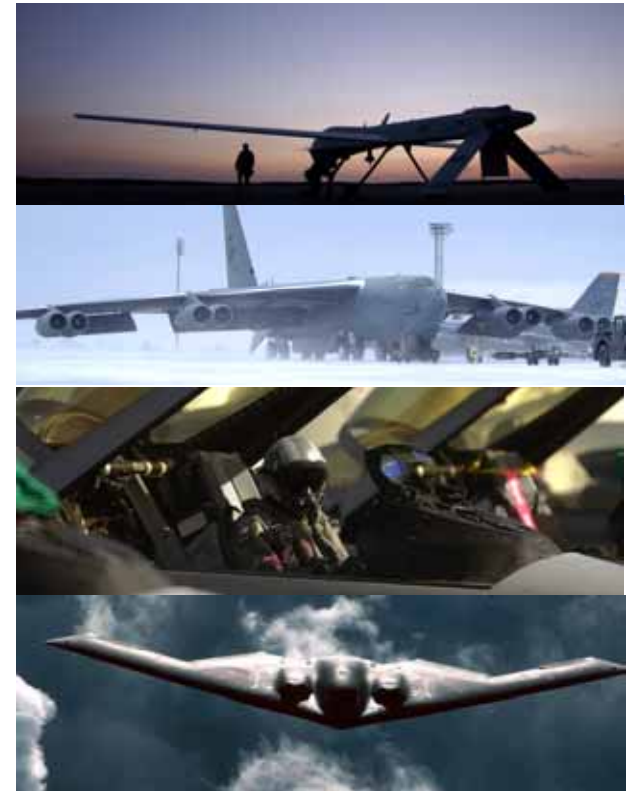
GLOBAL STRIKE

THE INDISPENSABLE CAPABILITY FOR THE 21ST CENTURY



Global Strike

- Global Strike—the United States Air Force’s unique ability to strike any target in the world at anytime.
 - Global strike, when paired with accurate and timely intelligence, can yield strategic results that win wars, not just battles.
 - Global strike will afford the United States valuable options when deterring enemies and confronting threats such as nuclear proliferation, the rise of near-peer states, resource competition, and continued asymmetric warfare.
 - It is essential that we have a modern global strike force that can successfully undertake missions in an increasingly hostile threat environment.





An Uncertain Future

- The United States faces a dynamic and multi-faceted security environment—future threats will not always mirror phase 4 operations in Iraq and Afghanistan.
- Potential challenges include:
 - Nuclear proliferation
 - Rising near-peer states
 - Resource competition
 - Continued asymmetric threats
- Decisions made today regarding policy, doctrine, and procurement require comprehensive foresight—we will be responding to future threats with the forces then on hand.



The familiar missions of deterring...and defeating aggression through large-scale power-projection operations have not diminished in importance. In fact, these missions are, in many ways, becoming more challenging.

A New Division of Labor—Meeting America's Security Challenges Beyond Iraq--RAND Corporation, 2007



Looking For A Better Way

- Wars have historically been fought via two primary methods:
 - Annihilation--totally destroy an enemy and all supporting entities.
 - Attrition--utilize force to exhaust an enemy before he destroys you.
- These conflicts are incredibly costly:
 - Often results in numerous casualties.
 - Involves large financial expenditures.
 - Requires time, often years.
 - Destroys large swaths of territory.
 - Risks large-scale collateral damage to civil populations, often alienating these groups.



Is “the last tactical mile” really the best way to attain our objectives in future engagements?

Looking For A Better Way

•There is a better way: the key to prevailing in war, whether against state or non-state actors, is targeting centers of gravity—the critical elements that enable an enemy to function.

- Leadership
- Processes
- Infrastructure
- Fielded Forces

(Top Priority)



(Lower Priority)

•An enemy has a difficult time effectively operating without leadership, supplies, logistics, communications, etc.

•This was the method of attack utilized in Desert Storm, Kosovo, and initial combat phases in Afghanistan and Iraq—it is a proven concept, maximizing efficiency and effect.




Those skilled in war subdue the enemy's army without battle. They capture his cities without assaulting them and overthrow his state without protracted operations.

Sun Tzu, The Art of War

Looking For A Better Way

- What targets yield the greatest effect?

	Nation State	Al Qaeda	Military	<i>Greatest Effect</i>  <i>Reduced Effect</i>
Leadership	President, Media, Policy Makers	Bin Laden, Top Leaders, Top Financers	Commanders	
Processes	Communication and Energy Systems	Financing, Intelligence, Communication, Training, Weapons Procurement	Communications, Logistics, Training, Intelligence, Medical	
Infrastructure	Highways	Safe Houses, Tribal Areas	Roads, Base Areas	
Action Units (Fielded Forces)	Military, Police, Merchants	Hijack Units, Suicide Units, Field Units	Combat Units	



- What would happen to the federal government if the White House, Capitol, Pentagon, communication infrastructure, power grid, beltway, bridges spanning the Potomac, and local airports were targeted in an attack? Could the nation effectively respond?

Looking For A Better Way

•Iran-Iraq War (*Force-on-Force Combat*)

- Lasted 8 years—1980-1988
- Over 1.5 million combined casualties
- Tremendous economic, social, and political strain on both nations
- Massive refugee problems
- Horrific fighting, including the use of WMDs
- No appreciable strategic gain attained by either side



VS.



•Operation Desert Storm (*Centers of Gravity*)

- Lasted 43 days—1991
- U.S. casualties: 148 battle deaths, 145 non-battle deaths, 460 wounded
- Iraqi Casualties: 100,000 battle deaths, 300,000 wounded, 150,000 deserted, and 60,000 taken prisoner (US estimates)
- Tremendously efficient use coalition resources—first day saw more targets attacked than the total number of targets hit by the entire 8th AF in 1942 and 1943
- Limited collateral damage to civilian population
- Effects-based targeting prevented Iraqi military from effectively engaging
- Effective and efficient use of force led to rapid victory
- Demonstrated success bolstered capability to deter numerous potential adversaries



Access: A Fleeting Luxury

- Operations against centers of gravity demand attacks deep within enemy territory.
- Current legacy strike assets will not be able to survive in these high-threat regions.
 - Advanced Surface-to-Air Missiles (SAMs)
 - 4th and emerging 5th Generation Fighters
 - In Operation Desert Storm 37 US aircraft were shot down and a further 40 were damaged—air defense systems have improved dramatically since this conflict.
 - In Operation Allied Force an F-117 and an F-16 were shot down over Kosovo by SAMs.
 - Over thirty nations operate fighter aircraft that are at parity or exceed the capabilities of our F-15 and F-16 fleet.



Is it wise to spend millions maintaining and supporting legacy assets that will be unable to reach their assigned targets in high threat environments?

Access: A Fleeting Luxury

- Potential adversaries have had 18 years since Desert Storm to study our employment doctrine and combat tactics.
- Advanced SAM systems are one of the primary tools being utilized globally to deny access to our legacy strike assets.
 - High-end SAMs are currently being produced and proliferated globally by Russia (SA-6+, SA-10, SA-20, SA-21) and China (HQ-9).
 - These weapons are affordable and available.
 - SAM systems can track and attack multiple targets with ranges in excess of 100 miles.
 - These SAMs are mobile, making it hard to either avoid or destroy them.
 - Advanced SAMs can operate onboard enemy ships (SA-N-20), compromising the capabilities of stand-off assets.

Modern SAM Range



Air-Defense Threats Limit Access

CAPABILITY	Legacy SAMS	Current SAMS
Simultaneous Engagements	1	6
Engagement Ranges (nm)	10-25	50-100
Mobility	Limited	Excellent
Manpower	Intensive	Automation



Access: A Fleeting Luxury

- Nations around the globe have fielded fighters that challenge and exceed the capabilities of 4th Generation F-15s and F-16s.
 - Fighters on the global market include: Rafale, Gripen, and Typhoon (Europe); MiG 29, MiG 35, Su-27, Su-30, and Su-35 (Russia); and F-10, F-11B, and JF-17 (China).
 - Advantages over US legacy fighters include:
 - First shot advantage leveraged through advanced radar, targeting systems, electronic jamming capabilities, and superior air-to-air missiles, such as the AA-12 (Russia) and PL-12 (China), with ranges that exceed the standard US AIM 120 AMRAAM.
 - Superior maneuverability via thrust vectoring and sophisticated aerodynamics.
 - Significantly younger airframes—USAF F-15C fleet averages 25 years in age, versus 6 years for the Russian Su-30 fleet.



Russia, China, and India are already working on new 5th Generation fighters.



Air Force Association

...THE FORCE BEHIND THE FORCE



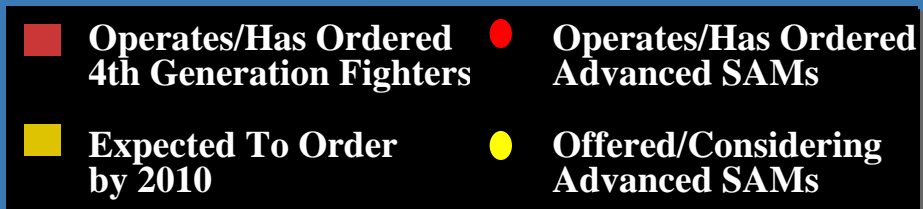
Access: A Fleeting Luxury

Air dominance is not guaranteed:

The Su-27 is operated by Algeria, Belarus, China, Eritrea, Ethiopia, India, Indonesia, Kazakhstan, Malaysia, Mexico, Russia, Ukraine, Uzbekistan, Venezuela, and Vietnam.

MiG-29 operators include Algeria, Armenia, Azerbaijan, Bangladesh, Belarus, Bulgaria, Cuba, Eritrea, Hungary, India, Iran, Kazakhstan, Malaysia, Myanmar, North Korea, Peru, Poland, Russia, Serbia, Slovakia, Sudan, Syria, Turkmenistan, Ukraine, Uzbekistan, and Yemen.

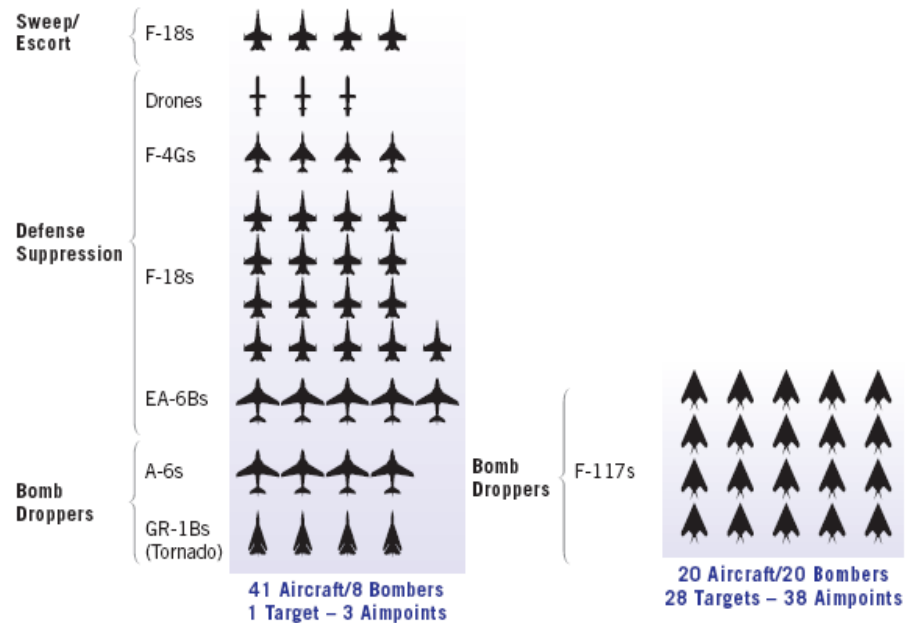
5th generation fighters are currently being developed by Russia and China to challenge the F-22 and F-35.



The Opportunity Cost of Legacy Assets

- What is the opportunity cost of making due with legacy assets to attain strategic results?
 - During Desert Storm, both legacy assets and high-end F-117 stealth aircraft were utilized to attack enemy centers of gravity.
 - It took a force package of 41 legacy aircraft to attack 1 target: 4 A-6s and 4 Tornados dropping bombs on 1 target; 4 F-4s and 17 F/A-18s providing SAM suppression; 5 EA-6Bs jamming enemy radar; 4 F/A-18s defending against enemy fighters; and 3 drones serving as decoys against enemy aircraft.
 - On the same night 20 F-117 stealth aircraft attacked 28 targets—yielding over 1000% greater target coverage with fewer than half the number of aircraft.

Which method would you choose?



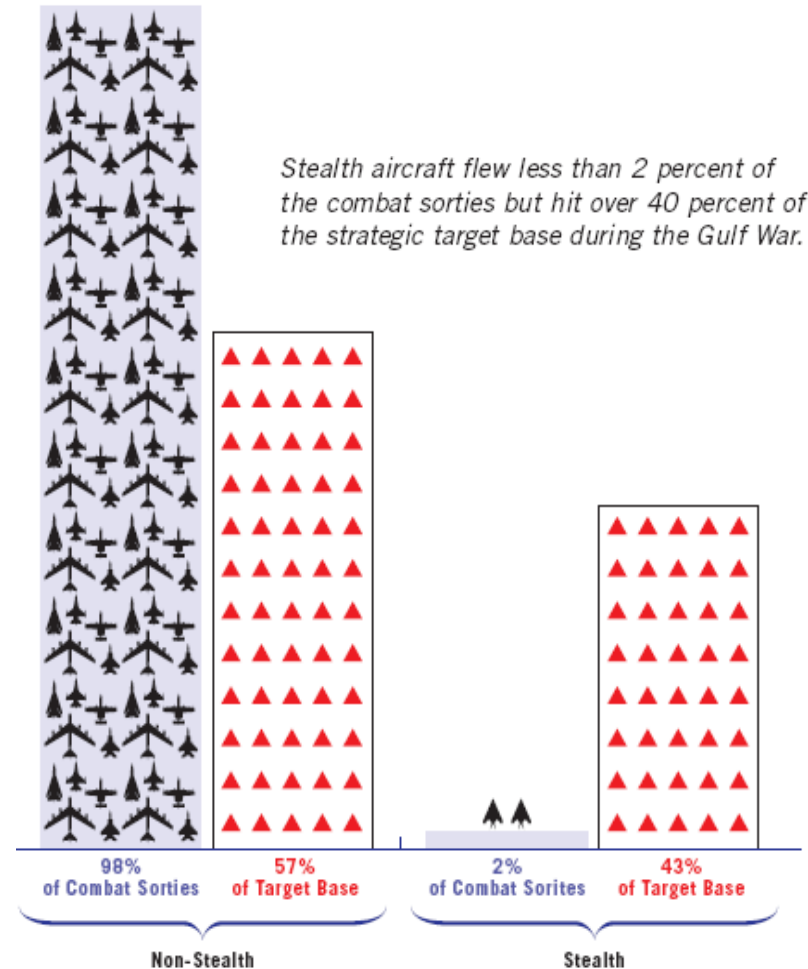
The leverage of stealth: Non-stealth versus stealth attack during the opening hours of the air war.

Is building a force structure around legacy assets really cheaper in the long run?

The Opportunity Cost of Legacy Assets

- An Air Force dependent upon legacy assets faces costly long term operating expenses.
 - A tremendous number of aircraft must be maintained in the inventory to fulfill a variety of non-strategic roles to enable the core assets to successfully execute their missions.
 - This means allocating significant resources to aircraft, related equipment, maintenance, training, and personnel that must perform these ancillary missions.
 - Deploying and sustaining this many legacy aircraft in a combat theater demands significant resources and access to numerous forward bases.

The real question isn't how much do new aircraft cost, but instead what is the cumulative expense associated with pursuing Plan B?





Where Do We Go From Here?

- This is not about the US Air Force, this is about our nation's ability to deter, fight, and win.
- History has proven repeatedly that we will not have the luxury of choosing when and where we fight--not all future engagements will look like Afghanistan and Iraq.
- Attacking enemy centers of gravity with advanced systems capable of autonomous deep strike works:
 - Yields war-winning strategic results
 - Minimizes conflict duration
 - Reduces force requirements
 - Minimizes casualties
- Due to a dynamic threat environment, the US Air Force must continue to invest in advanced systems such as F-22, F-35, Next Generation Bomber, and upgrades for existing systems.



The only thing more expensive than a first rate Air Force is a second rate Air Force.