

## Advantages of the 6th Generation Airpower Technology

Explore the 6th generation's advanced features, delivering improved performance, efficiency, and innovation to meet future combat needs

#### Stealth



Enhanced stealth capabilities will make 6th generation fighters significantly harder to detect and track.

USA
UK
UK
Italy
Japan
Canada
Russia
France
Germany

Overall Stealth Rating

4.5

4.5

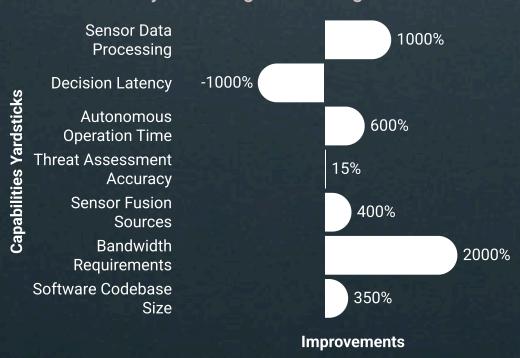
4.5

3.5

#### **AI Role**



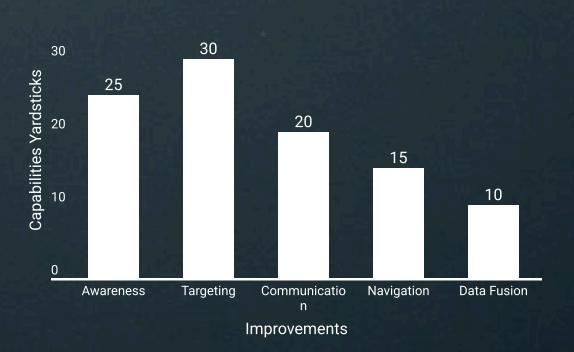
Al will enable autonomous operations and real-time data analysis in 6th generation fighters.



### **Hypersonic**



Incorporating hypersonic technology, these fighters aim for speeds exceeding Mach 5 for superior performance.



Please note that a negative percentage in the F-47 Airfighter indicates an improvement in capability levels









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#### Sensors



Next-gen sensors and avionics offer enhanced situational awareness and improved communication systems.

Improved Sensors & Avionics Capabilities

Multi-Spectral Sensor		250%
Target Recognition Range		150%
False Target Rejection		12%
Threat Classification	-85%	
Jamming/Spoofing		35%
Sensor Coverage		50%
Data Processing		1150%
Pilot Cognitive Workload	-65%	
All-Weather Performance		40%
	Improvement	
	Target Recognition Range False Target Rejection Threat Classification Jamming/Spoofing Sensor Coverage Data Processing Pilot Cognitive Workload	Target Recognition Range False Target Rejection  Threat Classification  Jamming/Spoofing  Sensor Coverage  Data Processing  Pilot Cognitive Workload  All-Weather Performance

### **Modular Design**



Modular and adaptive designs allow these fighters to feasibly adapt to emerging threats and technologies, enhancing versatility.

Modular & Adaptive Design Improvement

		0004	
Capabilities Yardsticks	Mission Reconfigurati	-83%	
	Role Flexibility		200%
	Payload Capacity		300%
	Software Update Cycle	-98%	
	Sensor Package		400%
	Power Distribution		150%
	Combat Adaptation	-99%	
	Platform Commonality		125%
	Technology Insertion		500%
	Multi-Environment		175%
		Improv	ymnet

### **Survivability**



With advanced materials, these fighters will have a reduced radar cross-section enhancing their survivability.

#### Survivability Improvement

	Radar Cross Section	-90%	
Capabilities Yardsticks	All-Aspect Stealth		200%
	IR Signature Reduction	-75%	
	Electronic Warfare		180%
	Battle Damage Tolerance		150%
	Cyber Attack Resilience		250%
	Counter-Detection Range		110%
ပၱ	Missile Warning Time		140%
	Countermeasures		25%

improvement

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#### **Pilot Interface**

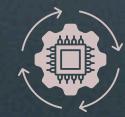


Pilot interfaces, including augmented reality and braincomputer interfaces, may enhance pilot situational awareness and decision-making.

Cognitive Workload
Control Modalities
Information Processing...
Situational Awareness...
Decision Support Quality
Visual Display Resolution
Training Time...
Fatigue Mitigation
Customization
Multi-Aircraft Control



## Autonomous & Manned-Unmanned Teaming



6th-generation fighters may be designed to operate autonomously or in tandem with unmanned aerial vehicles (UAVs), enhancing their effectiveness and survivability.

Comprehensive Autonomous & Teaming Capabilities Comparison

ks	Drone Control Capacity		500%
	Autonomous Decision		300%
itic	Unmanned Combat		500%
Sapability Yardsticks	Human Supervision	-80%	
Ya	Swarm Coordination		400%
ty	Autonomous Target		250%
Pill	Teaming Communicati		9900%
pa	Task Transfer Flexibility		350%
Ca	Contested Environment		600%
	N-Ethical Decision		100&
		Improv	a manata

improvement

### **Propulsion**



Advanced propulsion systems like hybrid-electric engines will improve efficiency and range.

Propulsion

	Thrust-to-Weight Ratio
	Fuel Efficiency(Fuel
2	Supercruise Capability
capability cel tration	<b>Operating Temperature</b>
Ď	Power Generation
ر ح	Thermal Management
Ĭ	Maintenance
מ	Variable Cycle
a F	Infrared Signature
כ	Reliability
	Service Life

	40%
-35%	
	80%
	25%
	500%
	300%
	60%
	100%
	70%
	40%
	35%
Improv	mnot

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### **GAME CHANGER #1**

**Directed Energy Weapons** 



Directed Energy Weapons: Integration of directed energy weapons, such as lasers or microwave systems, could revolutionize air-to-air combat.

### **GAME CHANGERS #2**

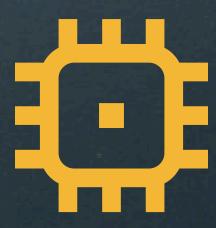
**Advanced Materials and Manufacturing** 



Advanced Materials and Manufacturing: New materials and techniques like 3D printing enable complex shapes, reducing weight and boosting performance.

### **GAME CHANGERS #3**

**Quantum Computing & Cybersecurity** 



Quantum Computing & Cybersecurity: The integration of quantum computing and advanced cybersecurity measures could provide unparalleled levels of security and processing power.



