

National Counter-Weapons Defense Plan

A Layered Asymmetric Defense Architecture for Countering
the Active U.S. Military Weapons Arsenal

Supplemental Report to: USA Military Weapons Active 2026

Principle: Maximum Defense Effectiveness at Minimum Cost

The 15-System Portfolio: A finite set of intelligent counter-weapons
capable of defeating every weapon system cataloged in the primary report

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1. Executive Summary and Strategic Philosophy

This supplemental report serves as a comprehensive national defense plan for countering every major weapon system identified in the companion report USA Military Weapons Active 2026. Rather than recommending a unique counter-weapon for each of the hundreds of individual U.S. weapon systems cataloged therein, this plan takes an intelligent, cost-effective approach: it identifies a finite portfolio of 15 core counter-weapon systems that, when deployed in a layered, integrated defense architecture, are collectively capable of neutralizing the entire spectrum of U.S. military threats. Each counter-weapon in this portfolio has been selected for its ability to defeat multiple U.S. weapon categories simultaneously, creating overlapping defense-in-depth that maximizes survivability while minimizing cost and logistical complexity.

The strategic philosophy underlying this plan draws from established Anti-Access/Area Denial (A2/AD) doctrine, asymmetric warfare theory, and lessons learned from recent conflicts including the Russo-Ukrainian War, the Nagorno-Karabakh conflicts, and ongoing Red Sea tensions. The fundamental insight is that the U.S. military's greatest strengths, its power-projection capability, precision-strike dominance, and technological sophistication, also create exploitable vulnerabilities. Power projection requires logistical chains; precision-guided munitions depend on GPS navigation and datalinks; stealth aircraft are vulnerable to low-frequency radar; and expensive platforms such as aircraft carriers and destroyers can be threatened by relatively inexpensive weapons in sufficient numbers. This plan systematically exploits each of these vulnerabilities through a layered defense architecture organized across six operational layers.

The defense architecture consists of six concentric layers operating from the maritime approach zone inward to the national heartland: (1) the Maritime Exclusion Zone, extending 1,000+ km from the coastline, which seeks to deny access to carrier strike groups and amphibious task forces; (2) the Air Defense Umbrella, a multi-tier integrated air and missile defense network countering aircraft, cruise missiles, drones, and ballistic missiles; (3) the Ground Defense Line, employing anti-armor, artillery, and infantry fortifications to defeat any ground forces that breach the outer layers; (4) the Electromagnetic Countermeasures Layer, using electronic warfare and cyber operations to degrade the precision-strike kill chain and disrupt command and control; (5) the Counter-Special Operations Layer, providing security against SOF infiltration and sabotage; and (6) the Strategic Deterrence Layer, maintaining a retaliatory capability to deter nuclear escalation. The following sections detail each layer, the 15 core counter-weapon systems, and a complete threat-counter matrix mapping every U.S. weapon to its designated counter.

2. U.S. Weapon Threat Taxonomy

To design an efficient counter-weapons portfolio, the hundreds of individual U.S. weapon systems must be grouped into threat categories that share common vulnerabilities. The following taxonomy identifies 14 distinct threat categories, each containing multiple specific weapon systems from the companion report. This grouping is the foundation for selecting counter-weapons that address multiple threats simultaneously, rather than pursuing an inefficient one-to-one matching approach.

Threat Category	Representative U.S. Weapons (from Report 1)	Shared Vulnerability
TC-1: Stealth Aircraft	F-35A, F-22A, B-2A Spirit, B-21 Raider	Low-frequency radar detection; base infrastructure dependency; limited payload endurance
TC-2: Non-Stealth Combat Aircraft	F-16, F-15E, F/A-18, A-10C, AC-130J, F-35B/C	SAM systems; electronic jamming; base attack; runway denial; MANPADS
TC-3: Strategic Bombers	B-52H, B-1B, B-2A, B-21 (future)	Interception; stand-off defense; base denial; EW disruption of targeting
TC-4: Aircraft Carriers	Nimitz-Class (10), Ford-Class (2+)	Anti-ship ballistic/cruise missiles; submarine attack; minefields; saturation attacks
TC-5: Surface Combatants	Burke DDG, Ticonderoga CG, LCS, Zumwalt, FFG	Anti-ship missiles; submarines; mines; coastal batteries; swarm boat attacks
TC-6: Submarines	Ohio SSBN/SSGN, Virginia SSN, Seawolf SSN, Columbia (future)	ASW helicopters/sonar; minefields; acoustic detection nets; shallow-water traps
TC-7: Main Battle Tanks	M1A2 SEPv3 Abrams, M1E3 (future)	ATGM top-attack; IEDs/EFPs; loitering munitions; artillery; urban denial
TC-8: Armored/Meched Vehicles	M2A4 Bradley, Stryker, AMPV, JLTV, Humvee, MRAP, ACV, LAV-25	ATGMs; RPGs; artillery; loitering munitions; mines; urban fortification
TC-9: Artillery and Rocket Systems	M109A7, M777A2, M270A2, HIMARS, M119A3	Counter-battery radar; SEAD; dispersion; hardened shelters; EW
TC-10: Air Defense Systems	Patriot, THAAD, NASAMS, Avenger, Stinger, MADIS, GBI	SEAD; saturation; EW; cruise missile standoff attack; destruction of radar nodes
TC-11: Precision-Guided Munitions	JDAM, SDB I/II, Paveway, JASSM, LRASM, Tomahawk, Excalibur, APKWS	GPS/GNSS denial; EW jamming; laser warning; smoke/obscurants; hardening; deception
TC-12: Hypersonic Weapons	Dark Eagle (LRHW), CPS	Early warning; dispersed operations; hardened sites; deception; point defense evolution
TC-13: Drones and UAS	MQ-9, MQ-1C, RQ-4, RQ-170, Raven, CCA (future)	C-UAS EW/jammers; interceptor drones; SHORAD; camouflage/netting; cyber
TC-14: Nuclear Triad	Minuteman III, Trident D5LE, B61-12, ALCM, LRSO	Ballistic missile defense; hardened C2; civil defense; retaliatory deterrence

Table 1. U.S. Weapon Threat Taxonomy: 14 Categories with Shared Vulnerabilities

This taxonomy reveals a critical insight: rather than requiring 100+ different counter-weapons, a well-designed portfolio of 15 multi-role systems can address all 14 threat categories through overlapping coverage. The next section introduces the core counter-weapon portfolio and the layered defense architecture that integrates them.

3. The 15-System Core Counter-Weapon Portfolio

The centerpiece of this defense plan is a carefully selected portfolio of 15 counter-weapon systems that collectively address every threat category identified in the taxonomy above. Each system was chosen based on three criteria: (1) breadth of coverage, meaning it must counter at least three distinct threat categories; (2) cost-effectiveness relative to the threat it neutralizes; and (3) proven effectiveness demonstrated in real-world conflicts or rigorous military exercises. The following table summarizes the portfolio, organized by defense layer.

3.1 Layer 1: Maritime Exclusion Zone Counter-Weapons

ID	Counter-Weapon	Primary Threats Countered	Mechanism of Action
CW-01	Anti-Ship Ballistic Missile System (ASBM)	TC-4 (Carriers), TC-5 (Surface Combatants)	Maneuverable re-entry vehicle with terminal homing targeting carrier strike groups and large surface ships at 1,500+ km range. Exploits the difficulty of defending against ballistic missile endo-atmospheric targets traveling at hypersonic speeds. Can be enhanced with satellite, over-the-horizon radar, and drone spotting for mid-course targeting updates.
CW-02	Diesel-Electric Submarine Fleet (SSK)	TC-4 (Carriers), TC-5 (Surface Combatants), TC-6 (Submarines)	Modern air-independent propulsion (AIP) diesel-electric submarines operating in littoral and choke-point waters. Extremely quiet in battery/AIP mode, making them difficult for U.S. nuclear submarines to detect. Armed with heavyweight torpedoes and anti-ship missiles. Cost approximately 1/10th of a nuclear submarine. Proven effective in exercises against U.S. carrier groups.
CW-03	Coastal Anti-Ship Missile Batteries (AShM)	TC-4 (Carriers), TC-5 (Surface Combatants)	Shore-based mobile launcher systems with supersonic sea-skimming anti-ship missiles (range 300+ km). Fire-and-forget with active radar homing. Highly mobile, concealed, and difficult to suppress. Creates a lethal anti-ship envelope extending hundreds of kilometers from the coastline.
CW-04	Naval Minefield Systems (Smart Mines)	TC-4 (Carriers), TC-5 (Surface Combatants), TC-6 (Submarines)	Rapidly-deployable influence mines with acoustic, magnetic, and pressure sensors. Modern smart mines can distinguish between target types, lie dormant for months, and are extremely difficult to sweep. Can be laid by aircraft, submarines, or surface vessels. Historically the most cost-effective anti-naval weapon, causing more damage than any other system since WWII.

Table 2. Layer 1: Maritime Exclusion Zone Counter-Weapons

3.2 Layer 2: Air Defense Umbrella Counter-Weapons

ID	Counter-Weapon	Primary Threats Countered	Mechanism of Action
CW-05	Integrated Multi-Tier IADS (Long/Med/Short Range SAMs)	TC-1 (Stealth), TC-2 (Aircraft), TC-3 (Bombers), TC-9 (Artillery air support), TC-11 (PGMs limited), TC-13 (Drones)	A layered network integrating long-range (S-400/Patriot-class, 400 km), medium-range (Buk-M3, 70 km), short-range (Tor-M2/Pantsir, 15 km), and MANPADS (Igla-S/Verba, 6 km) systems. Multiple overlapping engagement zones ensure no gap exists for aircraft to exploit. Networked command structure enables cooperative engagement.

ID	Counter-Weapon	Primary Threats Countered	Mechanism of Action
CW-06	VHF/UHF Early Warning Radar Network	TC-1 (Stealth Aircraft), TC-2 (Aircraft), TC-3 (Bombers), TC-13 (Drones)	Low-frequency (VHF and UHF band) radars capable of detecting stealth aircraft despite their radar-absorbing materials. Stealth shaping is optimized against X-band and higher frequencies; VHF wavelengths are long enough to cause resonance effects that compromise stealth. Cannot provide fire-control quality tracking alone, but cues higher-frequency engagement radars.
CW-07	Counter-Unmanned Aerial System (C-UAS) EW Suite	TC-13 (All Drones/UAS), TC-11 (PGMs with datalinks)	Multi-band electronic warfare system combining RF jamming, GNSS spoofing, and directed cyber-intrusion to defeat drones at all altitudes. Includes radar/ESM detection, RF directional jamming, GNSS denial (spoofing + jamming), and optional laser/kinetic interceptors for confirmatory kills. Proven against MQ-9 class and smaller UAS in Middle Eastern conflicts.
CW-08	Short-Range SHORAD / SPAAG Systems	TC-2 (Low-flying aircraft/helicopters), TC-9 (Artillery shells/rockets), TC-13 (Low-altitude drones)	Self-propelled gun/missile air defense systems (e.g., Pantsir-S1, Tunguska-class) combining rapid-fire autocannon (30mm) and short-range missiles on a single mobile platform. Provides the innermost layer of air defense against helicopters, low-altitude fighters, cruise missiles, drones, and incoming artillery rockets.

Table 3. Layer 2: Air Defense Umbrella Counter-Weapons

3.3 Layer 3: Ground Defense Line Counter-Weapons

ID	Counter-Weapon	Primary Threats Countered	Mechanism of Action
CW-09	Modern ATGM Ecosystem (Top-Attack + Fire-and-Forget)	TC-7 (Tanks), TC-8 (All armored/mechanized vehicles)	A family of anti-tank guided missiles spanning all ranges: man-portable fire-and-forget systems (NLAW/Javelin-class, 800 m) for dismounted infantry, medium tripod-mounted systems (Spike-NLOS, 25 km) for over-the-horizon engagement, and vehicle-launched top-attack missiles (Kornet-EM, 10 km) for mechanized units. Top-attack profiles defeat the thickest armor.
CW-10	Massed Artillery with Counter-Battery Radar	TC-7 (Tanks), TC-8 (Vehicles), TC-9 (Artillery), TC-11 (PGM delivery platforms)	Large-caliber towed and self-propelled howitzers (152mm/155mm) integrated with counter-battery radar (e.g., AR-1/Zoo Park). Counter-battery radar detects incoming artillery and computes firing positions within seconds, enabling rapid retaliatory fire. Cluster and thermobaric munitions devastate troop concentrations and vehicle formations.
CW-11	Loitering Munitions and FPV Drone Swarms	TC-7 (Tanks), TC-8 (All vehicles), TC-9 (Artillery), TC-10 (Air Defense radars), TC-15 (SOF)	Low-cost autonomous loitering munitions and first-person-view (FPV) attack drones that hover over the battlefield until targets are identified. FPV drones equipped with shaped-charge warheads have proven devastating against tanks, IFVs, artillery, and air defense systems in Ukraine. Unit cost of \$500-\$5,000 vs. \$5-10M for an MBT.
CW-12	Prepared Defensive Fortifications and Urban Terrain	TC-7 (Tanks), TC-8 (Vehicles), TC-15 (SOF), TC-14 (Nuclear survivability)	Extensive networks of trenches, bunkers, reinforced concrete fighting positions, dragon's teeth anti-tank obstacles, minefields, and urban fortifications. Prepared defense multiplies combat power by 3-5x for defenders. Underground bunker complexes provide protection against PGMs and nuclear effects. Urban terrain negates U.S. armor/air advantages.

Table 4. Layer 3: Ground Defense Line Counter-Weapons

3.4 Layer 4: Electromagnetic and Cyber Countermeasures

ID	Counter-Weapon	Primary Threats Countered	Mechanism of Action
CW-1 3	Multi-Band GPS/GNSS Denial System	TC-11 (All GPS-guided PGMs: JDAM, SDB, Tomahawk, Excalibur, JASSM, LRASM), TC-13 (GPS-dependent drones)	Powerful GPS/GNSS jamming and spoofing systems that deny or corrupt satellite navigation signals across the battlespace. GPS-denied environments force U.S. platforms to rely on less accurate inertial navigation, dramatically degrading the precision strike advantage. When combined with EW, this can render the bulk of the U.S. PGM inventory unreliable.
CW-1 4	Strategic Electronic Warfare Complex	TC-1 (Stealth aircraft via radar), TC-2 (Aircraft via targeting), TC-3 (Bombers), TC-10 (Air Defense), TC-11 (PGM datalinks), TC-13 (Drone C2)	A family of powerful ground-based and mobile electronic warfare systems (e.g., Krasukha-4/S, Rtut-2BM) capable of jamming airborne early warning radars (AWACS/E-3G), satellite communications, targeting datalinks (Link 16), and synthetic aperture radars. By disrupting the "kill chain" of find-fix-track-target-engage-assess, EW prevents U.S. forces from employing precision weapons effectively.

Table 5. Layer 4: Electromagnetic and Cyber Countermeasures

3.5 Layer 5-6: Counter-SOF and Strategic Deterrence

ID	Counter-Weapon	Primary Threats Countered	Mechanism of Action
CW-1 5	National Asymmetric Resistance Capability (NARC)	TC-15 (SOF infiltration), TC-14 (Nuclear escalation), TC-2 (Occupation forces)	A comprehensive program combining: (a) civilian informant networks and counter-intelligence to detect SOF infiltration; (b) mobile checkpoints, CCTV, and biometric screening to identify hostile operatives; (c) strategic depth and population resilience training; and (d) a retaliatory strategic deterrent (missile/nuclear) to prevent escalation to the nuclear level. The goal is to make any ground invasion prohibitively costly in blood and treasure.

Table 6. Layers 5-6: Counter-SOF and Strategic Deterrence

4. Layered Defense Architecture: Operational Concept

The 15 counter-weapon systems do not operate in isolation; they are integrated into a layered defense architecture that sequentially degrades an invading force as it approaches the national territory. Each layer is designed to destroy or attrite as much of the attacking force as possible before it reaches the next layer inward. The architecture operates on the principle of sequential attrition: even if individual layers have less than 100% effectiveness, the cumulative effect across all layers produces an overwhelmingly high overall probability of defeating the attack. This section describes the engagement sequence and how the counter-weapons interact across layers.

4.1 Engagement Sequence

Phase	Range from Coast	Active Counter-Weapons	U.S. Assets Targeted	Expected Attrition
Phase 1: Maritime Interdiction	1,500 - 500 km	CW-01 (ASBM), CW-02 (SSK subs), CW-06 (VHF radar)	Carrier strike groups, destroyers, cruisers, amphibious ships	30-50% of naval surface forces degraded or destroyed
Phase 2: Coastal Denial	500 - 50 km	CW-03 (Coastal AShM), CW-04 (Mines), CW-02 (SSK subs)	Remaining surface ships, landing craft, LHD/LHA, LCS	Additional 30-40% of surface forces; amphibious landing severely disrupted
Phase 3: Air Battle	200 km - coast	CW-05 (IADS), CW-06 (VHF radar), CW-14 (Strategic EW)	F-35, F-22, F-16, F-15E, B-2, B-52, B-1B, F/A-18, EA-18G	40-60% of attacking aircraft destroyed or mission-killed
Phase 4: PGM Degradation	Throughout	CW-13 (GPS denial), CW-14 (EW jamming), CW-07 (C-UAS EW)	JDAM, SDB, JASSM, Tomahawk, Excalibur, LRASM, APKWS, drones	60-80% PGM accuracy degraded; many weapons rendered ineffective
Phase 5: Ground Defense	Inland / Border	CW-09 (ATGMs), CW-10 (Artillery), CW-11 (Loitering munitions), CW-12 (Fortifications)	M1 Abrams, Bradley, Stryker, JLTV, HIMARS, M109, infantry	Attacking ground forces suffer 50-70% casualties; advance halted
Phase 6: Strategic Denial	Throughout	CW-15 (NARC: deterrence, counter-intelligence, civil defense)	SOF teams, nuclear escalation, occupation logistics	SOF operations neutralized; nuclear escalation deterred

Table 7. Layered Defense Engagement Sequence and Expected Attrition Rates

The mathematical power of layered defense is evident in the cumulative attrition. If a carrier strike group loses 40% of its air wing in Phase 3, and then the remaining aircraft face a 60% PGM degradation rate in Phase 4, and finally encounter prepared defenses in Phase 5, the effective combat power reaching the ground defense line may be reduced to less than 10-15% of its original capability. This is the fundamental principle that makes this defense plan viable even against a technologically superior opponent.

5. Master Threat-Counter Weapon Matrix

The following comprehensive matrix maps every major U.S. weapon system from the companion report to its designated counter-weapon(s). Where possible, multiple counter-weapons are assigned in a primary and secondary configuration, reflecting the layered defense principle. This matrix demonstrates that the 15 counter-weapon portfolio provides complete coverage of all threat categories without requiring a unique counter for each individual weapon.

5.1 Small Arms, Crew-Served, and Infantry Weapons

U.S. Weapon	Primary Counter	Secondary Counter	Counter Logic
M4A1, XM7, M16A4, M27, M110A1 (Rifles)	CW-12: Fortifications	CW-11: FPV Drones	Prepared defensive positions (trenches, bunkers, urban rubble) negate individual weapon advantage. FPV drones provide lethal overmatch at close range.
M249, XM250, M240B, M2A1 .50 cal (Machine Guns)	CW-12: Fortifications	CW-10: Artillery	Reinforced concrete positions with overhead cover defeat MG suppression. Artillery can target static MG positions identified by sound/radar ranging.
M107A1, MK 21, M2010 (Sniper Systems)	CW-12: Smoke/Obscurants	CW-11: FPV Drones	Multi-spectral smoke screens deny line-of-sight to snipers. FPV drones can rapidly locate and engage sniper positions.
M17/M18, M500, M1014 (Sidearms/Shotguns)	CW-12: Urban Fortification	CW-09: ATGMs (vehicles)	In urban combat, fortified strongpoints with interlocking fields of fire negate close-range weapons. Vehicles carrying sidearms are vulnerable to ATGMs at standoff.

Table 8. Counter-Weapons for U.S. Small Arms

5.2 Armored Vehicles and Artillery

U.S. Weapon	Primary Counter	Secondary Counter	Counter Logic
M1A2 SEPv3 / M1E3 Abrams	CW-09: Top-Attack ATGM	CW-11: Loitering Munitions	Javelin/NLAW-class fire-and-forget ATGMs attack the thinner top armor. FPV drones with shaped charges have proven highly effective in Ukraine. Artillery-delivered scatterable mines restrict movement.
M2A4 Bradley, Stryker, AMPV	CW-09: ATGMs	CW-10: Artillery, CW-11: FPV	ATGMs penetrate IFV/ICV armor at extended range. Thermobaric artillery shells devastate dismounts. FPV drones can target vision blocks and exposed infantry.
JLTV, Humvee, MRAP, LAV-25	CW-09: ATGMs	CW-04: Mines, CW-11: FPV	Even light ATGMs overmatch MRAP/Humvee armor. Minefields restrict vehicle mobility. FPV drones exploit limited situational awareness of open-top/soft-skin vehicles.
ACV, AAV-7A1 (Amphibious)	CW-03: Coastal AShM	CW-10: Artillery (beach)	Coastal missile batteries target amphibious ships and surf-zone vehicles. Pre-registered artillery fires on known beach landing zones create kill zones.
M109A7 Paladin, M777A2	CW-10: Counter-Battery	CW-14: EW (targeting)	Counter-battery radar detects incoming rounds and directs immediate retaliatory fire within 2-5 minutes. EW jamming degrades precision fire control and datalinks.
M270A2 MLRS, M142 HIMARS	CW-10: Counter-Battery	CW-05: IADS, CW-13: GPS Denial	MLRS/HIMARS are high-priority counter-battery targets due to their destructiveness. GPS denial degrades GMLRS accuracy. IADS can intercept ATACMS missiles.
Patriot, THAAD, NASAMS	CW-14: SEAD/EW	CW-10: Artillery (radar)	Anti-radiation missiles (HARM/AARGM) and EW systems target Patriot/THAAD radars. Artillery can deliver cluster munitions to air defense sites. Saturation attacks overwhelm SAM capacity.

Table 9. Counter-Weapons for U.S. Armored Vehicles and Artillery

5.3 Naval Platforms

U.S. Weapon	Primary Counter	Secondary Counter	Counter Logic
Nimitz/Ford-Class Carriers	CW-01: ASBM	CW-02: SSK Subs, CW-04: Mines	Anti-ship ballistic missiles with maneuverable warheads target carriers at 1,500+ km, beyond carrier air wing range. Diesel-electric subs with AIP lie in ambush near choke points. Minefields deny operating areas.
Burke DDG, Ticonderoga CG	CW-01: ASBM	CW-03: Coastal ASHM, CW-02: SSK	ASBMs target Aegis destroyers and cruisers at extended range. Coastal supersonic ASHM batteries create dense engagement envelopes. SSKs in littoral waters exploit acoustic conditions.
LCS, Zumwalt, Constellation FFG	CW-03: Coastal ASHM	CW-04: Mines, CW-08: SHORAD	LCS has limited air defense and is vulnerable to ASHM saturation. Mines restrict Zumwalt operations. Small craft with ASHMs can swarm surface combatants.
Ohio SSBN, Columbia SSBN	CW-02: SSK Subs	CW-04: Mines, CW-06: Radar	SSKs in SSBN patrol areas and near submarine bases complicate SSBN deployment. Minefields near strategic ports constrain sortie timing. VHF radar detects surfacing submarines.
Virginia SSN, Seawolf SSN	CW-04: Smart Mines	CW-06: Sonar Nets	Smart minefields in littoral approaches damage or destroy SSNs. Fixed acoustic sensor networks (SOSUS-type) detect submarine transit. ASW helicopters with dipping sonar.
Ohio SSGN (Guided Missile Sub)	CW-02: SSK Subs	CW-04: Mines	SSKs in SSGN operating areas and choke points. Minefields near Tomahawk launch positions restrict effective employment.
MK 45 5-inch Gun, CIWS, SeaRAM	CW-04: Mines, CW-03: ASHM	Shipboard guns and CIWS are defensive only. The counter strategy is to avoid engaging them directly and instead strike the platforms with ASBMs, ASHMs, torpedoes, or mines.	
Mk 48/Mk 54 Torpedoes	CW-04: Decoys/Seducers	CW-12: Shallow Water	Acoustic decoys and noisemakers divert homing torpedoes. Shallow littoral waters create false targets and degrade torpedo sonar performance. Hardening submarines against torpedo hits.

Table 10. Counter-Weapons for U.S. Naval Platforms

5.4 Aircraft and Air-Launched Weapons

U.S. Weapon	Primary Counter	Secondary Counter	Counter Logic
F-35A/B/C Lightning II	CW-06: VHF Radar + CW-05: IADS	CW-14: EW Jamming	VHF/UHF radars detect stealth aircraft at reduced ranges but sufficient for early warning. IADS networked with low-frequency cueing enables SAM engagement. EW degrades F-35 sensor fusion advantage.
F-22A Raptor	CW-06: VHF Radar + CW-05: IADS	CW-14: EW	Same approach as F-35. F-22 has limited strike payload; forcing it into defensive counter-air roles reduces its offensive impact. Attacking F-22 bases with cruise missiles limits sorties.
F-16, F-15E, F/A-18, F-35B/C	CW-05: IADS (Medium/Short SAM)	CW-14: EW, CW-13: GPS Denial	Non-stealth aircraft are highly vulnerable to integrated SAM networks. Buk/Tor-class systems provide dense overlapping coverage. EW degrades targeting pods and radar-guided weapons.
B-2A Spirit (Stealth Bomber)	CW-06: VHF Radar + CW-05: IADS	CW-14: EW	VHF radars can detect B-2 at usable ranges. Networked IADS with multi-band sensors reduces stealth advantage. Only 19 aircraft exist; attrition is strategically significant.
B-52H, B-1B (Conventional Bombers)	CW-05: IADS (Long Range)	CW-06: Radar, CW-14: EW	Non-stealth bombers are vulnerable to long-range SAMs at standoff. B-52 is large and slow, presenting an easy target. B-1B is supersonic but non-stealth. Both require standoff launch of JASSM/JDAM.
A-10C Thunderbolt II	CW-05: IADS (SHORAD)	CW-08: SPAAG, CW-11: FPV	The A-10's low altitude and speed make it highly vulnerable to SHORAD, SPAAG (autocannon), and MANPADS. FPV drones can engage A-10s during gun runs.
AC-130J Ghost Rider (Gunship)	CW-05: IADS (SHORAD)	CW-07: C-UAS, CW-08: SPAAG	Large, slow, and non-maneuverable gunships are extremely vulnerable to any air defense. Even MANPADS can threaten them. C-UAS jamming disrupts their sensor packages.
C-17, C-130J, C-5M (Transports)	CW-05: IADS (All tiers)	CW-12: Airfield Denial	Transport aircraft are soft targets for any SAM. Airfield denial through cratering runways with ballistic missiles, SCUD-class rockets, or special operations prevents airlift operations.
KC-46A, KC-135R (Tankers)	CW-05: IADS (Long Range)	CW-14: AWACS Jamming	Tankers are high-value, non-maneuverable targets operating in predictable patterns behind the front line. Destroying tankers effectively grounds the fighter fleet by limiting combat radius.

Table 11. Counter-Weapons for U.S. Aircraft

5.5 Missiles and Precision-Guided Munitions

U.S. Weapon	Primary Counter	Secondary Counter	Counter Logic
AIM-120D AMRAAM, AIM-9X, AIM-260	CW-05: IADS	CW-14: EW (RWR jamming)	Air-to-air missiles require the launching aircraft to survive long enough to fire. Layered IADS forces FCR engagement at the limits of AMRAAM range. EW degrades radar-guided missile tracking.

U.S. Weapon	Primary Counter	Secondary Counter	Counter Logic
Tomahawk Block V	CW-05: IADS (All tiers)	CW-13: GPS Denial, CW-14: EW	Subsonic cruise missiles are interceptable by modern IADS. GPS denial degrades navigation. EW jamming disrupts datalinks and targeting updates. Multi-layer SAMs provide multiple engagement opportunities.
AGM-158B JASSM-ER	CW-06: VHF Radar	CW-05: IADS, CW-14: EW	Low-observable cruise missiles are detectable by VHF radar. IADS provides engagement opportunities. EW disrupts targeting and midcourse guidance.
AGM-158C LRASM	CW-06: VHF Radar	CW-05: IADS (Naval SM-6 class)	Anti-ship missiles face naval air defense. Defender's equivalent AShM counter-missiles and CIWS provide layered defense.
AGM-114 Hellfire, AGM-179 JAGM	CW-12: Armor	CW-07: C-UAS, CW-11: FPV	Helicopter-launched ATGMs require the launch platform (AH-64/AH-1Z) to survive. IADS, MANPADS, and SPAAG threaten attack helicopters. FPV drones can engage helicopters.
FGM-148 Javelin	CW-12: Fortifications	CW-11: FPV Drones	Javelin requires line-of-sight and costs \$175K+ per missile. Prepared defenses with overhead cover and thermal decoys reduce effectiveness. FPV drones counter Javelin teams at lower cost.
Dark Eagle (LRHW), CPS (Hypersonic)	CW-06: Early Warning	CW-12: Dispersed Operations	No proven defense against hypersonic weapons exists. The counter-strategy is to disperse high-value targets, maintain redundant C2 nodes, and harden critical infrastructure. Early warning systems extend decision timelines.
JDAM, SDB I/II, Paveway, Laser JDAM	CW-13: GPS Denial	CW-14: EW, CW-12: Smoke/Decoy	GPS-guided PGMs (JDAM, SDB, Excalibur, GMLRS) are degraded by GNSS jamming/spoofing. Laser-guided PGMs are defeated by multi-spectral smoke, laser warning receivers, and obscurant screens. EW disrupts datalinks for SDB II and StormBreaker.
M982 Excalibur, M1156 PGK	CW-13: GPS Denial	CW-10: Counter-Battery	GPS-denied environment forces artillery to use unguided fire or less accurate INS-only modes. Counter-battery radar enables rapid retaliation against artillery positions.
Mk 19, M320, SMAW-D, MAAWS, AT4	CW-12: Fortifications	CW-11: FPV, CW-10: Artillery	Short-range weapons require close approach. Trench systems, bunkers, and urban rubble negate grenade and launcher effectiveness. FPV drones and artillery target grenadier teams.

Table 12. Counter-Weapons for U.S. Missiles and PGMs

5.6 Nuclear Weapons, Drones, EW, SOF, and Special Systems

U.S. Weapon / System	Primary Counter	Secondary Counter	Counter Logic
Minuteman III ICBM	CW-15: Strategic Deterrence	CW-12: Hardened C2 Bunkers	No effective defense against ICBMs in terminal phase. Counter is to maintain retaliatory capability to deter first use. Hardened C2 ensures survivability for second-strike.

U.S. Weapon / System	Primary Counter	Secondary Counter	Counter Logic
Trident II D5LE (SLBM)	CW-02: SSK Subs	CW-15: Strategic Deterrence	Submarine-launched missiles are the most survivable leg; no active defense is practical. Maintain retaliatory deterrent force and ASW capability.
B61-12, ALCM, LRSO (Nuclear ALCMs)	CW-05: IADS (Air Defense)	CW-06: VHF Radar	Nuclear-armed bombers require penetration of airspace. Layered IADS increases attrition and forces standoff launch. VHF radar reduces B-2 stealth advantage.
MQ-9 Reaper, MQ-1C Gray Eagle	CW-07: C-UAS EW Suite	CW-05: IADS, CW-08: SHORAD	EW jamming severs datalinks, causing drones to lose control or return to base. SHORAD and MANPADS engage drones at low altitude. FPV interceptor drones provide low-cost kills.
RQ-4 Global Hawk, MQ-4C Triton	CW-07: C-UAS EW	CW-05: IADS (Long Range)	High-altitude ISR drones depend on satellite datalinks vulnerable to EW. Long-range SAMs can engage at their operating altitudes. Cost asymmetry: a \$10M SAM vs. a \$200M drone.
RQ-170 Sentinel (Stealth UAV)	CW-06: VHF Radar	CW-07: C-UAS EW	VHF radars detect stealth UAVs. EW can disrupt command links and sensor packages. Relatively slow and non-maneuverable; even degraded tracking enables engagement.
HELIOS, ODIN, IFPC (Directed Energy)	CW-12: Smoke/Obscurant	CW-14: EW (radar)	Directed energy lasers and microwaves require line-of-sight and are degraded by smoke, dust, fog, and artificial obscurants. EW targets the targeting radars that cue DEW systems.
EC-130H, EA-18G Growler (EW)	CW-14: Counter-EW	CW-05: IADS (Fire Control)	Counter-electronic warfare means hardening own systems, frequency hopping, and using low-probability-of-intercept communications. IADS with passive sensors (IRST, EO) are immune to EW jamming.
SOF Weapons (HK416, Mk 18, Mk 48)	CW-15: Counter-Intelligence	CW-12: Fortified Checkpoints	Detecting SOF infiltration through biometric screening, informant networks, and surveillance. Fortified checkpoints with vehicle inspections and identity verification. Civil defense training to resist SOF-directed destabilization.
NMESIS (Marine Anti-Ship)	CW-14: EW (Jamming)	CW-12: Fortifications, CW-10: Counter-Battery	NMESIS depends on radar and datalinks for targeting. EW jamming degrades NSM targeting. Artillery counter-battery radar can locate and engage NMESIS launchers.
F-35B/C, MV-22B, CH-53K (Marine Air)	CW-05: IADS	CW-08: SHORAD/SPAAG	Marine aviation operating from expeditionary airfields and amphibious ships faces the full IADS envelope. F-35B is countered by VHF radar. MV-22 and CH-53K are large, slow targets for SAMs.
Coast Guard Cutters/Boats	CW-03: Coastal AShM	CW-04: Mines (port)	Coast Guard vessels are lightly armed and not designed for high-end combat. Even modest AShMs would overwhelm them. Port minefields restrict cutter operations during conflict.

Table 13. Counter-Weapons for Nuclear, Drone, EW, SOF, and Special Systems

6. Cross-Coverage Analysis: Multi-Threat Counter-Weapon Effectiveness

A key advantage of the 15-system portfolio is that each counter-weapon addresses multiple threat categories simultaneously. The following analysis demonstrates the breadth of coverage each system provides, showing that no single point of failure exists in the defense architecture. The matrix below shows how many threat categories each counter-weapon can address, proving the efficiency of the portfolio design.

Counter-Weapon	Threat Categories Addressed	TotalTC Coverage
CW-01: ASBM	TC-4 (Carriers), TC-5 (Surface Combatants)	2
CW-02: SSK Submarines	TC-4 (Carriers), TC-5 (Surface), TC-6 (Submarines)	3
CW-03: Coastal AShM	TC-4 (Carriers), TC-5 (Surface)	2
CW-04: Naval Mines	TC-4 (Carriers), TC-5 (Surface), TC-6 (Submarines)	3
CW-05: Integrated IADS	TC-1 (Stealth), TC-2 (Aircraft), TC-3 (Bombers), TC-9 (Arty support), TC-10 (Air Def), TC-11 (PGMs limited), TC-13 (Drones)	7
CW-06: VHF/UHF Radar	TC-1 (Stealth), TC-2 (Aircraft), TC-3 (Bombers), TC-13 (Drones)	4
CW-07: C-UAS EW Suite	TC-13 (Drones/UAS), TC-11 (PGM datalinks)	2
CW-08: SHORAD/SPAAG	TC-2 (Low aircraft), TC-9 (Rockets), TC-13 (Low drones)	3
CW-09: ATGM Ecosystem	TC-7 (Tanks), TC-8 (All armored vehicles)	2
CW-10: Artillery + Counter-Battery	TC-7 (Tanks), TC-8 (Vehicles), TC-9 (Artillery)	3
CW-11: Loitering Munitions / FPV	TC-7 (Tanks), TC-8 (Vehicles), TC-9 (Artillery), TC-10 (Air Def radars)	4
CW-12: Fortifications	TC-7 (Tanks), TC-8 (Vehicles), TC-15 (SOF), TC-14 (Nuclear survivability)	4
CW-13: GPS/GNSS Denial	TC-11 (All GPS PGMs), TC-13 (GPS drones)	2
CW-14: Strategic EW Complex	TC-1 (Stealth radar), TC-2 (Aircraft targeting), TC-3 (Bombers), TC-10 (Air Def), TC-11 (PGM datalinks), TC-13 (Drone C2)	6
CW-15: NARC (Deterrence/SOF Defense)	TC-14 (Nuclear deterrence), TC-15 (SOF)	2

Table 14. Cross-Coverage Analysis: Threat Categories Addressed Per Counter-Weapon

As the analysis shows, the most versatile counter-weapons in the portfolio are CW-05 (Integrated IADS, covering 7 of 14 threat categories) and CW-14 (Strategic EW Complex, covering 6 of 14). These two systems form the backbone of the defense, while the remaining 13 systems provide specialized capabilities for specific threat domains. The average coverage per counter-weapon is 3.2 threat categories, meaning the portfolio provides approximately 48 total "coverage points" across 14 categories, representing an average redundancy of 3.4 counter-weapons per threat category. This redundancy ensures that the loss of any single counter-weapon system does not create a gap in the defense.

7. Cost-Asymmetry Analysis: Defense Expenditure vs. Threat Value

One of the most critical advantages of the layered defense approach is the dramatic cost asymmetry it creates. U.S. weapon systems are among the most expensive in the world; the counter-weapons in this portfolio are significantly cheaper, often by orders of magnitude. This cost advantage means that a defender can impose disproportionate economic costs on the attacker, making an invasion prohibitively expensive. The following table illustrates the cost asymmetry for selected pairings.

U.S. Weapon (Unit Cost)	Counter-Weapon (Unit Cost)	Cost Ratio	Exchange Ratio for Economic Parity
F-35A Lightning II (~\$80M)	IADS SAM Interceptor (~\$500K)	160:1	Must shoot down 160 F-35s per interceptor lost; but only need ~10-20% attrition rate to halt operations
M1A2 Abrams (~\$10M)	FPV Drone with RPG warhead (~\$2K)	5,000:1	One Abrams destroyed per \$2K drone; even at 10:1 FPV failure rate, cost exchange is 500:1 in defender's favor
Nimitz-Class Carrier (~\$6B + \$5B air wing)	ASBM (~\$5M) or SSK (~\$300M)	1,200:1 or 20:1	A single carrier represents \$11B+ in investment. One successful ASBM hit or torpedo can cripple it; even 20 SSKs cost less than one carrier
Tomahawk Missile (~\$2M)	GPS Jammer/Spoofed PGM (~\$50K)	40:1	EW forces Tomahawks to miss; defender jams at fraction of one missile cost and degrades an entire salvo
JDAM Kit (~\$25K)	Multi-Spectral Smoke Grenade (~\$200)	125:1	Smoke screen denies laser/GPS targeting for an entire sector at trivial cost; forces aircraft to re-attack or accept degraded accuracy
MQ-9 Reaper (~\$30M)	C-UAS Jammer (~\$500K) or FPV Interceptor (~\$5K)	60:1 or 6,000:1	EW kills datalink; Reaper crashes or returns to base. Even kinetic kill with FPV interceptor achieves 6,000:1 cost advantage
Patriot PAC-3 Battery (~\$1B)	SCUD-class Ballistic Missile Barrage (~\$200K each)	Variable	Saturation attacks with cheap ballistic missiles exhaust Patriot interceptors (\$4M each). 200 SCUDs (\$40M) vs. 200 PAC-3s (\$800M) = 20:1 cost advantage

Table 15. Cost-Asymmetry Analysis: Selected Threat vs. Counter-Weapon Cost Ratios

The cost-asymmetry principle extends beyond individual weapon exchanges. The U.S. military's power-projection model requires enormous logistical investment: fuel, maintenance, spare parts, and personnel for forward-deployed forces. The defense plan described in this report shifts the cost burden to the attacker by forcing them to expend expensive precision munitions against inexpensive targets (decoys, empty trenches, hardened bunkers), while the defender's counter-weapons impose disproportionate losses. Over a sustained conflict, this cost dynamic becomes strategically decisive, as the attacker faces escalating expenditures for diminishing returns while the defender sustains resistance at a fraction of the cost.

8. Key Tactical Principles for Implementation

The success of this defense plan depends not only on the selection of counter-weapons, but on the tactical doctrine governing their employment. The following principles should guide all operational planning to maximize the effectiveness of the layered defense architecture.

8.1 Principle of Dispersed Operations

Every element of the defense must be dispersed and mobile. Air defense batteries should relocate after every engagement cycle (shoot-and-scoot). Artillery positions should have multiple pre-surveyed firing points. Command posts should be redundant and geographically separated. Missile launchers should be concealed and relocated frequently. This dispersal dramatically reduces the effectiveness of U.S. precision-strike capabilities by denying concentrated targets. A Tomahawk salvo against a single known air defense site is devastating; the same salvo against 20 dispersed and concealed sites is almost entirely wasted. The Ukrainian conflict has repeatedly demonstrated that survivability depends on mobility and dispersion more than on any individual weapon system.

8.2 Principle of EW-First Operations

Electronic warfare operations should commence at the earliest indication of hostilities, before kinetic engagement. GPS/GNSS denial should be activated across the battlespace to immediately degrade the accuracy of incoming PGMs and disrupt drone operations. Communications jamming should target U.S. datalinks (Link 16, SATCOM), AWACS radar, and satellite uplinks. This "electromagnetic first strike" blinds the attacker and disrupts the kill chain before any missiles are fired or aircraft launched. The goal is to force the attacker into a degraded environment where their technological advantages are significantly reduced and they must rely on less accurate, less efficient methods of targeting and engagement.

8.3 Principle of Depth in Terrain

The defense should exploit every available dimension of terrain: depth, elevation, urban complexity, and subterranean space. Mountainous terrain channels armor into kill zones where ATGMs and artillery are most effective. Urban areas negate air superiority and force ground combat where infantry weapons dominate over vehicle-mounted systems. Underground bunker networks provide protection from all air delivered munitions except specialized bunker-busters. River crossings, wetlands, and forests slow mechanized advances and create ambush opportunities. The defense should be designed around the geography of the specific national territory, leveraging natural obstacles as force multipliers.

8.4 Principle of Decoy and Deception

Decoy and deception operations should be employed systematically across all layers. Dummy air defense sites, inflatable vehicle decoys, false radio traffic, and radar reflectors can draw U.S. PGMs away from real targets. Historical analysis shows that U.S. forces have repeatedly struck decoys in recent conflicts, expending millions of dollars in precision munitions against empty positions. A decoy program costing \$1-5 million can absorb \$100-500 million in enemy munitions, further amplifying the cost asymmetry advantage. Thermal decoys that simulate

vehicle heat signatures are particularly effective against JDAM, SDB, and Hellfire engagements.

8.5 Principle of Saturation and Exhaustion

The defense should plan to exhaust U.S. PGM inventories through deliberate exposure of low-value decoy targets. The U.S. military maintains limited stockpiles of precision munitions, and production rates during high-intensity conflict may not keep pace with expenditure. By forcing the attacker to expend munitions against hardened, dispersed, and decoy-rich targets, the defender can degrade the attacker's strike capability over time. Once PGM inventories are exhausted, U.S. combat effectiveness drops dramatically, as aircraft must then rely on unguided bombs with significantly reduced accuracy, increasing collateral damage, civilian casualties, and risk to friendly forces.

9. Deep Dive: Defeating the Precision-Guided Munitions Kill Chain

The U.S. military's primary combat advantage in any conventional conflict is its ability to deliver precision-guided munitions with high accuracy against virtually any target type, in virtually any weather condition, at any time of day. From 500-lb JDAMs delivered by F-35s to Tomahawk cruise missiles launched from destroyers 1,600 km away, the PGM advantage allows the U.S. to destroy targets that defenders cannot protect by any single countermeasure. However, this precision-strike capability depends on a complex, multi-step "kill chain" that can be disrupted at multiple points. Understanding and attacking each link in this chain is the single most effective strategy for defeating U.S. conventional military superiority.

Kill Chain Step	Description	Counter-Weapon(s)	Effect of Counter
1. Find (Detect)	Sensors locate target: satellites, AWACS, HUMINT, drones, SIGINT	CW-14: EW (jam AWACS/satellite), CW-15: Counter-Intel (HUMINT), CW-12: Camouflage/Concealment	Degrade or deny the ability to locate high-value targets. Camouflage and concealment prevent optical/SAR identification.
2. Fix (Identify)	Analysts confirm target identity and priority	CW-12: Decoys, CW-15: Deception	Decoy targets absorb analyst attention and generate false confidence in target identification.
3. Track (Maintain Watch)	Sensors maintain continuous or periodic observation	CW-14: EW (sensor jamming), CW-07: C-UAS (drone denial)	Disrupt drone and AWACS coverage that provides persistent tracking. EW degrades sensor feeds.
4. Target (Assign Weapon)	Command selects weapon and assigns to platform	CW-14: EW (datalink jamming), CW-15: Cyber (C2 disruption)	Jamming command datalinks delays or prevents weapon-target pairing. Cyber attacks on C2 disrupt assignment process.

Kill Chain Step	Description	Counter-Weapon(s)	Effect of Counter
5. Engage (Deliver Weapon)	Platform delivers munition to target area	CW-05: IADS (intercept aircraft/missiles), CW-13: GPS Denial (PGM guidance), CW-14: EW (terminal jamming)	SAMs intercept delivery platforms. GPS denial causes PGMs to miss. EW jamming degrades terminal guidance.
6. Assess (Battle Damage)	Sensors evaluate strike effectiveness for re-attack	CW-14: EW (disrupt BDA sensors), CW-12: Deception (false damage)	Jam BDA sensors to prevent confirmation. Show false damage indicators to prevent re-attack.

Table 16. Precision-Guided Munitions Kill Chain: Counter-Weapon Disruption Points

The critical insight from this kill chain analysis is that the defender does not need to defeat any single step completely. Disrupting any one or two links is sufficient to break the chain. If GPS is denied, JDAMs cannot find their targets even if everything else in the chain works perfectly. If AWACS is jammed, fighters cannot find targets to engage. If delivery platforms are shot down by IADS, weapons never reach the target area. The layered defense plan systematically attacks every link in the chain simultaneously, making it extremely unlikely that the U.S. precision-strike advantage can be maintained in a contested, EW-intensive environment.

10. Implementation Priorities and Phasing

Implementing a layered defense of this scope requires careful phasing based on the cost, availability, and lead time of each counter-weapon system. The following implementation roadmap prioritizes systems that provide the greatest coverage with the least investment, creating an initial defense capability rapidly and then layering additional systems over time.

Phase	Timeline	Systems to Acquire/Deploy	Rationale
Phase 1: Foundation	0-12 months	CW-12: Fortifications (trenches, bunkers, minefields), CW-13: GPS/GNSS Denial, CW-15: Counter-Intel networks	Lowest cost, fastest to deploy, immediate impact. Fortifications are dirt and concrete; GPS jammers are commercially available. Civil defense training can begin immediately.
Phase 2: Active Defense	6-18 months	CW-09: ATGMs, CW-10: Artillery w/Counter-Battery, CW-11: FPV Drones/Loitering Munitions	Ground defense layer with proven, widely-available weapons. ATGMs and artillery can be procured from multiple suppliers. FPV drone production can be scaled rapidly with commercial components.
Phase 3: Air Defense Umbrella	12-24 months	CW-05: IADS (multi-tier SAMs), CW-06: VHF Radar, CW-08: SHORAD/SPAAG	Requires foreign military procurement and training. VHF radars and medium-range SAMs are available from multiple suppliers. Integration into a networked IADS requires command-and-control investment.
Phase 4: Maritime Denial	12-30 months	CW-01: ASBM, CW-02: SSK Submarines, CW-03: Coastal AShM, CW-04: Mines	Longest lead times (especially submarines). ASBM and AShM procurement from allied suppliers. Mine stockpiling can begin immediately. Submarine construction requires 2-5 years.

Phase	Timeline	Systems to Acquire/Deploy	Rationale
Phase 5: EW and Cyber	6-24 months	CW-14: Strategic EW Complex, CW-07: C-UAS EW Suite	Electronic warfare systems require specialized engineering but can be developed in parallel with other phases. C-UAS systems are commercially available and can be adapted from civilian technology.
Phase 6: Full Integration	18-36 months	Full integration of all 15 systems into unified C2; exercises and war-gaming; continuous refinement	All systems must be networked into a unified command structure. Red team exercises identify gaps. Continuous adaptation based on evolving U.S. capabilities.

Table 17. Implementation Roadmap: Phased Deployment of the 15-System Defense Portfolio

11. Summary: The Defense Architecture at a Glance

This report has presented a comprehensive national defense plan based on a carefully selected portfolio of 15 counter-weapon systems that collectively address every major U.S. military weapon system cataloged in the companion report. The plan is built on the proven principles of Anti-Access/Area Denial (A2/AD), asymmetric warfare, layered defense-in-depth, and cost-advantage exploitation. Rather than matching the U.S. military system-for-system, this approach identifies and exploits the vulnerabilities inherent in the U.S. force structure: dependence on GPS, reliance on forward-deployed logistics, the cost asymmetry between expensive platforms and inexpensive countermeasures, and the fragility of the precision-strike kill chain in contested electromagnetic environments.

The 15 core counter-weapon systems are: (1) Anti-Ship Ballistic Missiles, (2) Diesel-Electric Submarines, (3) Coastal Anti-Ship Missile Batteries, (4) Smart Naval Minefields, (5) Integrated Multi-Tier IADS, (6) VHF/UHF Early Warning Radar Network, (7) Counter-UAS Electronic Warfare Suite, (8) SHORAD/SPAAG Systems, (9) Modern ATGM Ecosystem, (10) Massed Artillery with Counter-Battery Radar, (11) Loitering Munitions and FPV Drone Swarms, (12) Prepared Defensive Fortifications, (13) GPS/GNSS Denial Systems, (14) Strategic Electronic Warfare Complex, and (15) National Asymmetric Resistance Capability. Together, these 15 systems provide overlapping, redundant coverage across all 14 threat categories identified in the U.S. weapon taxonomy, ensuring that no single point of failure can compromise the overall defense.

The plan recognizes that no defense is impenetrable against a peer-level opponent. However, by imposing cumulative attrition across multiple layers, exploiting cost asymmetries, disrupting the precision-strike kill chain, and leveraging terrain and fortification, this defense architecture can raise the cost of invasion to a level that makes it strategically untenable. The ultimate objective is deterrence through demonstrable capability: any potential invader must calculate that the costs of invasion would far outweigh any achievable strategic benefit.

Appendix: Complete Weapon-by-Weapon Counter Mapping

The following consolidated table maps every individual U.S. weapon system from the companion report to its designated counter-weapon(s), demonstrating complete coverage of the U.S. military arsenal by the 15-system

counter-weapon portfolio.

U.S. Weapon (Report 1)	Category	Primary Counter	Secondary Counter
M4A1, XM7, M16A4, M27, MK 18	Small Arms	CW-12: Fortifications	CW-11: FPV Drones
M249, XM250, M240B, M2A1, Mk 48	Machine Guns	CW-12: Fortifications	CW-10: Artillery
M2010, M107A1, M110, MK 21	Sniper Systems	CW-12: Smoke/Obscurants	CW-11: FPV Drones
M17/M18, M500, M1014	Sidearms/Shotguns	CW-12: Urban Fortification	CW-09: ATGMs
M1A2 SEPv3, M1E3 Abrams	Main Battle Tank	CW-09: Top-Attack ATGM	CW-11: Loitering Munitions
M2A4 Bradley, Stryker, AMPV, JLTV	IFV/ICV/Light Vehicles	CW-09: ATGMs	CW-10: Artillery, CW-11: FPV
Humvee, MRAP, M113, LAV-25	Light/MRAP Vehicles	CW-09: ATGMs	CW-04: Mines, CW-11: FPV
ACV, AAV-7A1	Amphibious Vehicles	CW-03: Coastal AShM	CW-10: Artillery
M109A7, M777A2, M119A3	Artillery	CW-10: Counter-Battery	CW-14: EW
M270A2 MLRS, M142 HIMARS	Rocket Artillery	CW-10: Counter-Battery	CW-05: IADS, CW-13: GPS Denial
Patriot, THAAD, NASAMS, Avenger, Stinger, MADIS	Air Defense	CW-14: SEAD/EW	CW-10: Artillery
AIM-120D, AIM-9X, AIM-260 JATM	Air-to-Air Missile	CW-05: IADS	CW-14: EW
AGM-114 Hellfire, AGM-179 JAGM, AGM-65 Maverick	Air-to-Surface	CW-05: IADS	CW-07: C-UAS
Tomahawk, JASSM-ER, SLAM-ER	Cruise Missile	CW-05: IADS	CW-13: GPS Denial
LRASM	Anti-Ship Missile	CW-06: VHF Radar	CW-05: IADS
AARGM-ER	Anti-Radiation Missile	CW-14: Counter-EW	CW-05: IADS (passive)
FGM-148 Javelin, BGM-71 TOW	Anti-Tank Missile	CW-12: Fortifications	CW-11: FPV Drones
SMAW-D, MAAWS, AT4	Anti-Armor Rockets	CW-12: Fortifications	CW-10: Artillery
Dark Eagle (LRHW), CPS	Hypersonic Weapon	CW-06: Early Warning	CW-12: Dispersed Ops
ATACMS, SM-6	SRBM/Multi-Role	CW-05: IADS	CW-13: GPS Denial

U.S. Weapon (Report 1)	Category	Primary Counter	Secondary Counter
Nimitz/Ford Carriers	Aircraft Carrier	CW-01: ASBM	CW-02: SSK, CW-04: Mines
Burke DDG, Ticonderoga CG	Destroyer/Cruiser	CW-01: ASBM	CW-03: ASHM, CW-02: SSK
LCS, Zumwalt, Constellation FFG	Frigate/Small Combatant	CW-03: Coastal ASHM	CW-04: Mines
Ohio SSBN, Columbia SSBN	Ballistic Missile Sub	CW-02: SSK	CW-15: Strategic Deterrence
Virginia SSN, Seawolf SSN	Attack Submarine	CW-04: Smart Mines	CW-06: Sonar Nets
Ohio SSGN	Guided Missile Sub	CW-02: SSK	CW-04: Mines
F-35A/B/C Lightning II	Stealth Fighter	CW-06: VHF Radar + CW-05: IADS	CW-14: EW
F-22A Raptor	Stealth Fighter	CW-06: VHF Radar + CW-05: IADS	CW-14: EW
F-15EX, F-16C/D, F-15E	4th-Gen Fighter	CW-05: IADS	CW-14: EW
F/A-18C/D Hornet	Carrier Fighter	CW-05: IADS	CW-14: EW, CW-13: GPS
B-2A Spirit, B-21 Raider	Stealth Bomber	CW-06: VHF Radar	CW-05: IADS, CW-14: EW
B-52H, B-1B	Conventional Bomber	CW-05: IADS (Long Range)	CW-06: Radar, CW-14: EW
A-10C, AC-130J	Ground Attack/Gunship	CW-05: IADS (SHORAD)	CW-08: SPAAG, CW-11: FPV
C-17, C-130J, C-5M	Transport Aircraft	CW-05: IADS	CW-12: Airfield Denial
KC-46A, KC-135R	Tanker Aircraft	CW-05: IADS (Long Range)	CW-14: AWACS Jamming
E-3G Sentry, RC-135, U-2S	ISR/Special Mission	CW-14: Strategic EW	CW-07: C-UAS
E-4B Nightwatch	ABNCP	CW-15: Strategic Deterrence	N/A (strategic)
MQ-9, MQ-1C Gray Eagle	Armed Drone	CW-07: C-UAS EW	CW-05: IADS, CW-08: SHORAD
RQ-4, MQ-4C, RQ-170	ISR Drone	CW-07: C-UAS EW	CW-05: IADS, CW-06: VHF
RQ-11 Raven, SUAS	Tactical Drone	CW-07: C-UAS EW	CW-08: SPAAG
CCA (Future)	Autonomous Combat Drone	CW-07: C-UAS EW	CW-14: EW (AI disruption)
Minuteman III, Trident D5LE	ICBM/SLBM	CW-15: Strategic Deterrence	CW-12: Hardened C2
B61-12, ALCM, LRSO	Nuclear ALCM/Bomb	CW-05: IADS	CW-06: VHF Radar
HELIOS, IFPC, ODIN	Directed Energy	CW-12: Smoke/Obscurant	CW-14: EW (radar)

U.S. Weapon (Report 1)	Category	Primary Counter	Secondary Counter
EC-130H, EA-18G Growler	Electronic Warfare	CW-14: Counter-EW	CW-05: Passive IADS
SOF Weapons (HK416, Mk 18, etc.)	Special Operations	CW-15: Counter-Intel	CW-12: Checkpoints
NMESIS	Marine Anti-Ship	CW-14: EW Jamming	CW-10: Counter-Battery
AH-64E, UH-60M, CH-47F	Army Helicopters	CW-05: IADS	CW-08: SHORAD, CW-11: FPV
MH-60M/K, AH-6I (SOF)	SOF Helicopters	CW-05: IADS	CW-15: Counter-Intel
USCG Cutters/Boats	Coast Guard	CW-03: Coastal AShM	CW-04: Port Mines
SBIRS, GPS III, AEHF	Space Systems	CW-14: EW (Satcom Jam)	CW-15: Cyber
Excalibur, PGK, APKWS	Precision Munitions	CW-13: GPS Denial	CW-14: EW, CW-12: Smoke
JDAM, SDB I/II, Paveway	PGM Bombs	CW-13: GPS/Laser Denial	CW-14: EW, CW-12: Decoys

Table 18. Complete Weapon-by-Weapon Counter Mapping (All Systems from Report 1)