

## EMP/HEMP Mitigation Products and Services

Advanced Survival Technology is dedicated to the analysis, design, fabrication and installation of specialized shielding, components and systems to mitigate the harmful effects of Electromagnetic Pulse and Geomagnetic Storms on buildings, vehicles, and structures world-wide. Our Team of highly skilled professional engineers, project managers, and fabricators have worked on military, government, and private projects world-wide.

Due to varying worldwide conditions, the need now exists for uniform and effective hardening, hardness verification and hardness maintenance of command and control centers, critical communications, data and computer centers, and intelligence systems that require 100% operations during and after an EMP/HEMP or Geo-Magnetic Storm (GMS) event. In critical time-urgent applications where momentary upsets are mission-aborting, the hardening requirements include stringent facility shielding, point-of-entry (POE) protection and special protective measures.



Advanced Survival Technology can provide comprehensive and effective hardening, hardening verification and hardness surveillance of bomb shelters, buildings, facilities, hardened shelters, command/control centers, data processing centers and business continuity centers against the damaging effects of Electromagnetic Pulse (EMP), HEMP, GMS, or transportable High-Powered Microwave (HPM) weapons. The function of these facilities supporting critical time-urgent applications requires network interoperability and effective physical protections, electromagnetic shielding, point of entry (POE) protection, and related special protective measures. At EMP Engineering we offer cost effective solutions and full manufacturing capabilities for most any type of HEMP/EMP/GMS mitigated facility along with full hardened shelter design/build services. We are dedicated to the design and implementation of robust, hardened CBRN and EMP measures – including specialized shielding / mitigation, components and sub-systems, to prevent the harmful effects of intentional or unintentional Electromagnetic Pulses and Geomagnetic Storms.

### Our services include (but are not limited to):

- Professionally Designed and Engineered HEMP/EMP/GMS Mitigation Solutions
- Custom HEMP Shielding Fabrication, Installation, and Project Management
- HEMP Verification Testing, Hardening, Hardening Assurance, Maintenance, and Remote Surveillance
- Custom designs for Electromagnetic Compatibility (EMC), Electromagnetic Interference (EMI), Nuclear and Lightning Electromagnetic Pulse (EMP), and TEMPEST solutions
- Electromagnetic pulse (EMP) Solutions that integrate with Architectural, Structural, Electrical, and Mechanical Engineering services to create a secured and safe shelter / bunker environment
- Full Service Professional Architectural, Engineering Solutions and Products for Hardened Facilities including CBRE (chemical, biological, radiological, explosive) Filters, Structural Engineering, Blast Engineering, and Electrical/Mechanical Engineering
- Engineering Solutions to keep your designed environment effective against evolving threats now and in the future
- All designs and projects are HEMP hardened per MIL-STD-188-125-2
- Portable, custom designed HEMP Resistant Electrical Generators, Communications Centers, and Data Centers fabricated in ISO shipping containers at 10', 20', 30' and 40 foot lengths. These can be ballistic/blast hardened with CRBN Air-Filtration systems. Custom evaluations, installation, and commissioning services included.
- Custom HEMP Shielded Rooms and Faraday Enclosures designed, built to any size, and installed

Creating a protective electromagnetic-threat facility shield requires an electromagnetic barrier with additional special protective measures that incorporate electrically continuous housings that substantially reduce the coupling of EMP electric and magnetic fields into the protected area. The electromagnetic barrier shall consist of the Facility HEMP Shield and protective devices for all POE's. Additionally, reliability, maintainability, safety and human engineering, testability, configuration management and corrosion control all need to be incorporated to the HEMP protection system design.



To accomplish this goal, a Client specific Vulnerability identification/Hardness Program overview and criticality assessment must be conducted that incorporates design, engineering, fabrication, installation and ongoing effectiveness testing activities to achieve the following:

- Provide an electromagnetic threat- protected facility or system design based upon verifiable performance specifications against identified threats that ideally suits the requirements of our clients.
- Provides a means of verifying achieved hardness levels through a cost-effective program of testing and analysis.
- Develop a maintenance/surveillance program during the procurement phase that supports the Client's operational and life cycle HEMP hardness requirements.
- Based on the anticipated threat, facility location and Client's protection program establishes the HEMP configuration baseline consisting of documentation of the physical characteristics of the HEMP protection system, subsystem and baseline performance data.

### Services

HEMP Hardening Design and Engineering

HEMP Hardened Systems Integration

HEMP Project Management

HEMP Quality Assurance

HEMP System Testing

HEMP Education, Training, and Consultation

### Sectors

Departments/Ministries of Defense

Power Grid Operators

Civil/Critical Infrastructure Operators

Oil Companies/Oil Infrastructure

Residential/Commercial/Industrial Hardening

VIP and Government Continuity

Aircraft Operators and Aviation Facilities

Electronics Manufacturers

Advanced Survival Technology understands EMP hardening, design, and integration of life-safety systems that must work during and after a HEMP/EMP attack, such as power systems, CBRN air-filtration systems, water systems, communications systems, sensor systems. Work with the experts when your life and continuity depends on performance. We have the experience to understand your needs, and the knowledge to meet them. For more information on our products and services, please visit us [www.empengineeringteam.com](http://www.empengineeringteam.com) or for current news and publications related to EMP/HEMP events and mitigation efforts, visit us on our Linked In Group, The EMP Mitigation Team, or at [www.EMPReport.com](http://www.EMPReport.com)