

SURVIAC is the DoD focal point for nonnuclear survivability/vulnerability data, information, methodologies, models and analysis relating to U.S. and foreign aeronautical and surface systems. SURVIAC's scope covers the survivability of U.S. systems to threat weapons as well as the effectiveness of U.S. weapons against foreign systems. Homeland Security/Homeland Defense has most recently been added to the SURVIAC technical scope.

Nonnuclear weapons include conventional missiles and guns, directed energy weapons, and chemical/biological weapons. Weapon systems include fixed and rotary-winged aircraft, both manned and unmanned, missiles, tanks, trucks, armored personnel carriers, artillery, radar vans, ships, and spacecraft. Data holdings include relevant survivability and lethality information on acquisition, detection, tracking, launch, fly-out and fuzing characteristics, the countermeasures and counter-countermeasures employed, and terminal effects, system design, performance and operational information; acoustics, infrared, optical, electro-optical and radar signatures; combat damage and repair; and component probability of kill given a hit (PK/h) data and combat history data.

Homeland Security encompasses intelligence and warnings; border and transportation security; domestic counterterrorism; protecting critical infrastructures; defending against catastrophic threats, and emergency preparedness and response.

SURVIAC is a DoD Information Analysis Center (IAC), (<http://iac.dtic.mil>), sponsored by the Defense Technical Information Center (DTIC) with support from several organizations including the Joint Aircraft Survivability Program Office (JASPO), (<http://www.jasprogram.org>), and Joint Technical Coordinating Group on Munitions Effectiveness (JTCG/ME), (<https://info.amsaa.army.mil/jtcgme>). SURVIAC is supported with facilities and a Contracting Officer's Representative (COR) from the 46th Test Group, Aerospace Survivability and Safety Operating Location (46 TG/OL-AC), Wright-Patterson AFB, Ohio and a Procuring Contracting Officer (PCO) from ESG/PKS (DTIC Flight) at Offutt AFB, NE.

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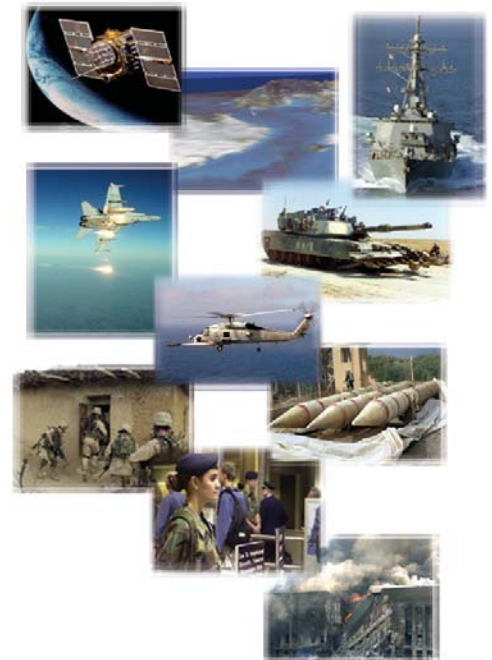
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SURVIAC

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Libraries & Databases



SURVIAC information re-sources are maintained in computerized databases, original reports, and in computer-indexed reference libraries. SURVIAC databases contain thousands of items that span detailed combat incidents, damage repair and maintenance information and sophisticated system and subsystem test data. Additions are made continually to stay abreast of recent technology developments and to keep pace with community needs. The most recent technical scope expansion is Homeland Security (HLS). SURVIAC has already started building our technical resources—libraries, data and expertise—to address HLS.

Meanwhile, SURVIAC continues to expand its data resources pertaining to non-nuclear survivability and lethality as applicable to present and projected aeronautical and surface targets and threats. Databases maintained by SURVIAC include:

- OEF & OIF Combat Incidents
- Desert Storm Combat Database
- Joint Live Fire/Live Fire Test Information System
- Just Cause
- ACFTDAB (Southeast Asia Fixed-Wing Aircraft Database)
- HELODAB (Southeast Asia Rotary-Wing Aircraft Database)
- GNDVEHSEADB (Southeast Asia Ground Vehicle Database)
- Yom Kippur

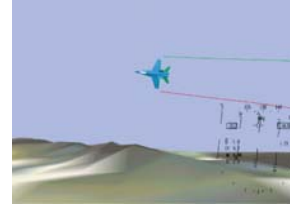
Continued expansion of the SURVIAC databases will result from the inclusion of data from on-going and programmed live fire tests on a wide variety of aeronautical and surface weapon systems. SURVIAC also seeks and compiles information on occasional combat incidents around the world.



For further information on SURVIAC libraries or databases, please contact:
Donna Egner, (937) 255-3828

Models

SURVIAC provides a focal point for distribution of and expert advice on the most widely used, up-to-date and accepted survivability and lethality models. SURVIAC maintains and disseminates the codes and documentation; provides technical advice regarding their use; conducts model user meetings for data exchange; and is the clearing house for changes and updates for these models in support of the model manager. Currently the center holds:



- **AIRADE** – Airborne Radar Detection Model
- **ALARM** – Advanced Low Altitude Radar Model
- **BLUEMAX** – Variable Airspeed Flight Path Generator
- **BRAWLER** – Air-to-Air Combat Simulation
- **BRL-CAD** – Ballistic Research Laboratory Computer-Aided Design Package
- **COVART** – Computation of Vulnerable Area Tool
- **DREAM** – Directed RF Energy Assessment Model
- **ESAMS** – Enhanced Surface-to-Air Missile Simulation
- **FASTGEN** – Fast Shotline Generator
- **FATEPEN** – Fast Air Target Encounter Penetration Program
- **FPM** – Fire Prediction Model
- **IVIEW 2000** – Graphical User Interface for Output Simulation
- **JSEM** – Joint Service Endgame Model
- **LELAWS** – Low Energy Laser Weapons Simulation
- **RADGUNS** – Radar-Directed Gun System Simulation
- **TRACES** – Terrain/Rotorcraft Air Combat Evaluation Simulation

Beyond the survivability and lethality domain of models, SURVIAC is familiar with and provides advice and recommendations on many other models in coordination with the Modeling and Simulation Information Analysis Center, MSIAC.

SURVIAC seeks to continue to build and maintain a complete set of survivability and lethality models as they qualify for entry within its technical charter. The SURVIAC Technical Coordinating Group reviews and approves additional models in response to community needs.

For further information on SURVIAC models and services please contact
Barry Vincent (937) 781-2800. To obtain a SURVIAC model contact: A. J. Brown (937) 255-3828

Products & Services

SURVIAC has staff experts to respond to user needs and the specifics of their inquiries. Specializing in survivability analysis, combat damage and loss, modeling and simulation, threat systems and weapon systems. SURVIAC personnel locate information from the center's extensive resource base, advise on problem-solving methodologies, or conduct original research in response to specific user requests. To augment the SURVIAC staff, we also maintain an active subject matter expert database drawn throughout the community.



In addition to fully responding to user inquiries each year, SURVIAC maintains a comprehensive publications program, including a quarterly current awareness bulletin, weekly E-News, videos, special reports, engineering handbooks and data books. SURVIAC also hosts and sponsors symposia and workshops on pressing survivability issues. SURVIAC works to maintain currency and relevance with the community with an active outreach liaison program. For more information on upcoming workshops and meetings throughout the community contact Donna Egner at (937) 255-3828 or DSN: 785-3828.

Technical Area Tasks

Technical area tasks originate from user requests for specialized expertise or quick reaction analyses beyond the scope of normal inquiry response. Special studies and tasks allows users to tap directly into SURVIAC as a center of survivability excellence and for the newest addition to our technical scope Homeland Security. The technical areas within the SURVIAC mission and charter include:

- Survivable conventional force requirements
- Survivability technologies
- Optimizing survivability
- Live fire testing
- Methodology advancement
- Support of combat operations
- Homeland Security/Homeland Defense

These areas encompass the full range of threats and targets in SURVIAC's technical area and address survivability and lethality issues throughout the weapon system acquisition cycle from concept formulation through deployment and employment.

For further information on Technical Area Task contact:
Kevin Crosthwaite, (937) 255-3828, Barry Vincent, (937) 781-2800, or
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