At Your Service: JHU WSE Energetics Research Group’s Technical Resources and Expertise for All Your Research Needs

After a recent name change, the Johns Hopkins University Whiting School of Engineering’s (JHU/WSE) Energetics Research Group (ERG) will continue nearly 70 years of CADRE and CPIAC’s legacy with improvements to its services. A new secure portal includes access to the Small Team Collaboration space, subscription packages and a Chemical Propulsion Information Network (CPIN) Suite of Databases for purchase, to individuals and organizations within the commercial propulsion industry. U.S. Government employees with portal accounts already receive these services and resources free of charge.

This suite includes the new JANNAF Digital Online Collection (JDOC), with complete access to more than 25,500 papers, reports, standards and manuals in a downloadable PDF format.

Energetics Research Group Subscriptions

A one-year subscription includes six hours of the ERG’s Technical and Bibliographic Inquiry (TBI) research service, access to the CPIN Suite of JANNAF Databases and a complimentary copy of the “JANNAF Journal of Propulsion and Energetics.” Total cost: $1,775

Technical and Bibliographic Inquiries:

Experienced ERG technical staff can leverage their vast scientific and technical knowledge, internal and external databases, and subject matter expertise network to answer all your research and development needs no matter how big or small your inquiry. For more information or to place an inquiry, please contact ERG’s technical inquiry line at 410-992-7301.

All JANNAF meeting attendees will have access to the JDOC database for a one-year period.

Unlimited access to the CPIN Suite of Databases is also available for anyone within a given organization for the cost of $8,750. Academic organizations and small businesses should call the ERG for available discounts.

Total Cost: $1,775

For additional information or to obtain a subscription and/or suite of databases, please contact the ERG Customer Service Line at (410) 992-7300 or e-mail: info@erg.jhu.edu.
Suite of Databases

Rocket Motor Electronic Database (RMED):
RMED is the national technical reference database for solid rocket motor systems. It combines the assets of ERG’s standard solid propulsion reference manuals and other data sources to provide the most comprehensive and versatile source of solid propulsion for rockets, missiles, launch vehicles, jet-assist units, ejection devices, test vehicles, and orbit transfer. Users can search for motors by designation, by physical or performance characteristics, or by browsing an convenient set of electronic indexes.

Solid Propellant Database (SPD):
SPD contains unclassified propellant data for nearly every operational U.S. system, as well as many historical systems dating as far back as the 1950’s. Most solid propellants are characterized with a full complement of technical reference data, including general descriptive characteristics, identifying nomenclature, applicable specifications, formulation details (ingredients, weight percentages, CAS numbers, and specifications), ballistic properties, safety and stability data, and production status.

Propellant and Explosive Ingredients Database (PEID):
PEID contains detailed physical, thermochemical and production status data on hundreds of developmental, mature, and historical ingredients used in propellant, explosive, and pyrotechnic formulations, as well as detailed information on production status and more than 100 ingredient suppliers. PEID includes an important Criticality Index, which addresses and indicates the severity of current or future supply issues.

Liquid Propellant and Fuels Database (LPFD):
LPFD contains information on all common liquid rocket fuels and oxidizers as well as airbreathing fuels for turbine and ramjet/scramjet engines. Collected data includes general information such as specifications, suppliers, and empirical formulae as well as detailed information on thermal and fluid transport properties (conductivity, diffusivity, viscosity, etc.) safety and hazards information (toxicity, threshold limit value, NFPA and DOT classifications, first aid) and materials compatibility with metals, non-metals, and lubricants.

Spacecraft Chemical Propulsion Database (SCPD):
SCPD is a unique compilation of spacecraft chemical propulsion systems. It includes system and component sections on the pressurization subsystems, propellant storage subsystems, flow control and feed systems, engines, and spacecraft in general. SCPD may also contain unclassified data on satellites that have classified component or performance details.

Liquid Rocket Engine Database (LRED):
LRED is a compilation of general engineering descriptions of liquid rocket engines and their major subassemblies. Engines of interest can quickly be identified and located using the LRED’s robust search and indexing capabilities. LRED contains records for liquid propellant engines that have been entered into service or have been tested in a flightweight configuration. It includes engine design descriptions, subassembly and component details, performance data, development and production history, and engine diagram, photograph and/or propellant flow schematic.

Rocket Propulsion Test Facilities Database (RPTF):
RPTF was developed as a tool for test management and asset monitoring to support the test manager or business developer, for test selection to support the program or propulsion engineer, and as a comprehensive reference for the greater rocket propulsion community. It includes detailed information on rocket propulsion test facilities including type of testing conducted, propellants, photographs and facility points of contact.

Joint Sensor Database:
The Joint Sensor Database is co-sponsored by JANNAF and the DoE NETL. It exists as an online repository for sensors of interest to the rocket propulsion, munition and energy industries. The database is collaborative and users may add sensors, edit sensors, and add details on applications for each sensor.

CPIAC Pub 710 is intended to systematically address current methods for testing scramjet engines and identify the industry consensus on recommended practices and new standards. The discussions cover: scramjet engine classifications and descriptions; analytic approaches; descriptive overviews available and potential test facilities; test configurations and procedures at both the major subsystem and integrated engine levels; and a comprehensive approach to the timely production of test reports.

Hazards of Chemical Rockets and Propellants (CPIAC Pub 394, Volumes 1-111):
CPIAC Pub 394 is intended solely as a source of information and basic guidelines for the processing, handling, storage and transportation of chemical propellants and propellant ingredients. It is not intended to be used as a regulatory document or to be construed as a complete and definitive work.

JANNAF Digital Online Collection (JDOC):
JDOC contains the entire history of the JANNAF collection of more than 25,500 papers, reports, standards, and manuals that are available in their entirety in a downloadable PDF format.