



## Jones Research and Consulting

a business unit of JRAC, Inc.

Jones Research and Consulting (JRAC, Inc) is an information technology company focusing on High Performance Computing (Supercomputing) and custom software engineering. Based in Atlanta, Georgia, JRAC offers its services globally.

JRAC was founded by internationally recognized HPC workload-management expert James Patton Jones, and builds upon his 15+ years of supercomputing experience. Complementing the skills of Mr. Jones is a team of carefully selected individuals each of whom possesses a minimum of 10 years of HPC, scientific, or technical experience.

The core skills offered by JRAC include:

- Supercomputer and Cluster systems analysis and troubleshooting
- Computational Grid systems deployment and management
- UNIX & Linux HPC system configuration and administration
- Workload management / batch queueing consulting
- PBS Professional tuning and customization
- Custom PBS scheduler development
- Scientific programming (Fortran, HPF, C, C++; MPI)
- Physics and Mathematical modeling
- Custom software development (C, C++, Visual C++)
- Web application development (PHP, MySQL, ColdFusion, Flash)
- Website design and development (XHTML, CSS, Javascript)
- Technical documentation authoring and editing
- Technical project management

### FOCUS AREAS:

Supercomputing

Grid Computing

HPC Consulting

Batch Job Scheduling

Workload Management

Portable Batch System  
Consulting, Training,  
and Customization

Custom Software  
Development

Web Application  
Development

Technology Training

Technical Writing  
and Editing

**Organizations for which Mr. Jones has provided technical services or training (either direct or sub-contract):**

**NASA  
US Dept. of Defense  
US Dept. of Energy  
ERDC MSRC  
ASC MSRC  
DIA / MSIC**

**Caterpillar  
Conoco/Phillips  
CSC  
Dow Chemical  
Ford Motor Company  
General Motors  
Motorola  
Saudi Aramco**

**Cray  
HP  
IBM  
LNXI  
SGI**

## **James Patton Jones**

**President & CEO, JRAC, Inc.  
Co-Founder Altair Grid Technologies**



An internationally recognized expert in HPC workload management, batch job scheduling, and Grid Computing, Mr. Jones has contributed chapters to four textbooks, authored six computer manuals, written 25+ technical articles/papers, and published several non-technical books. He served as co-architect of NASA's Metacenter (prototype Computational Grid) and co-architect of the Department of Defense MetaQueueing Grid, and assisted with the implementation of both projects.

Mr. Jones managed the business aspects of the Portable Batch System (PBS) team from 1997 thru 2000. (PBS is a flexible workload management, batch queuing, and job scheduling software system for computer clusters and supercomputers. See also [www.pbspro.com](http://www.pbspro.com).) Mr. Jones created the Veridian PBS Products Dept in 2000, and in 2003 spun-out the profitable business unit, co-founding Altair Grid Technologies, the PBS software development company. He then served in international and domestic business development roles, growing the global PBS customer base. In late 2005 Mr. Jones founded JRAC, Inc., focusing on HPC IT consulting, and custom application development.

With over 16 years in the computer software industry, including eleven years experience in job scheduling and distributed workload management, Mr. Jones is experienced in technology communication and training, supercomputer administration, systems analysis and management, project design, management, and implementation, and is an accomplished C programmer and web application developer.

## **Judith Utley**

Senior Systems Analyst and Grid Expert

Ms. Utley is an information systems professional with over 21 years experience in HPC systems analysis, and over twelve years experience with HPC and Linux systems integration. Her unique background combines strong computer technical knowledge with an understanding of and the ability to apply sound technical solutions. Her project management experience includes managing both local and distributed technical teams; her distributed-computing and grid-computing experience includes leading a virtual grid team, and co-ordinating international workshops in grid technologies.

## **Charles M. Dillingham, Jr.**

Scientific Application Developer

M.S. Applied Physics; B.S. Physics; B.S. Mathematics

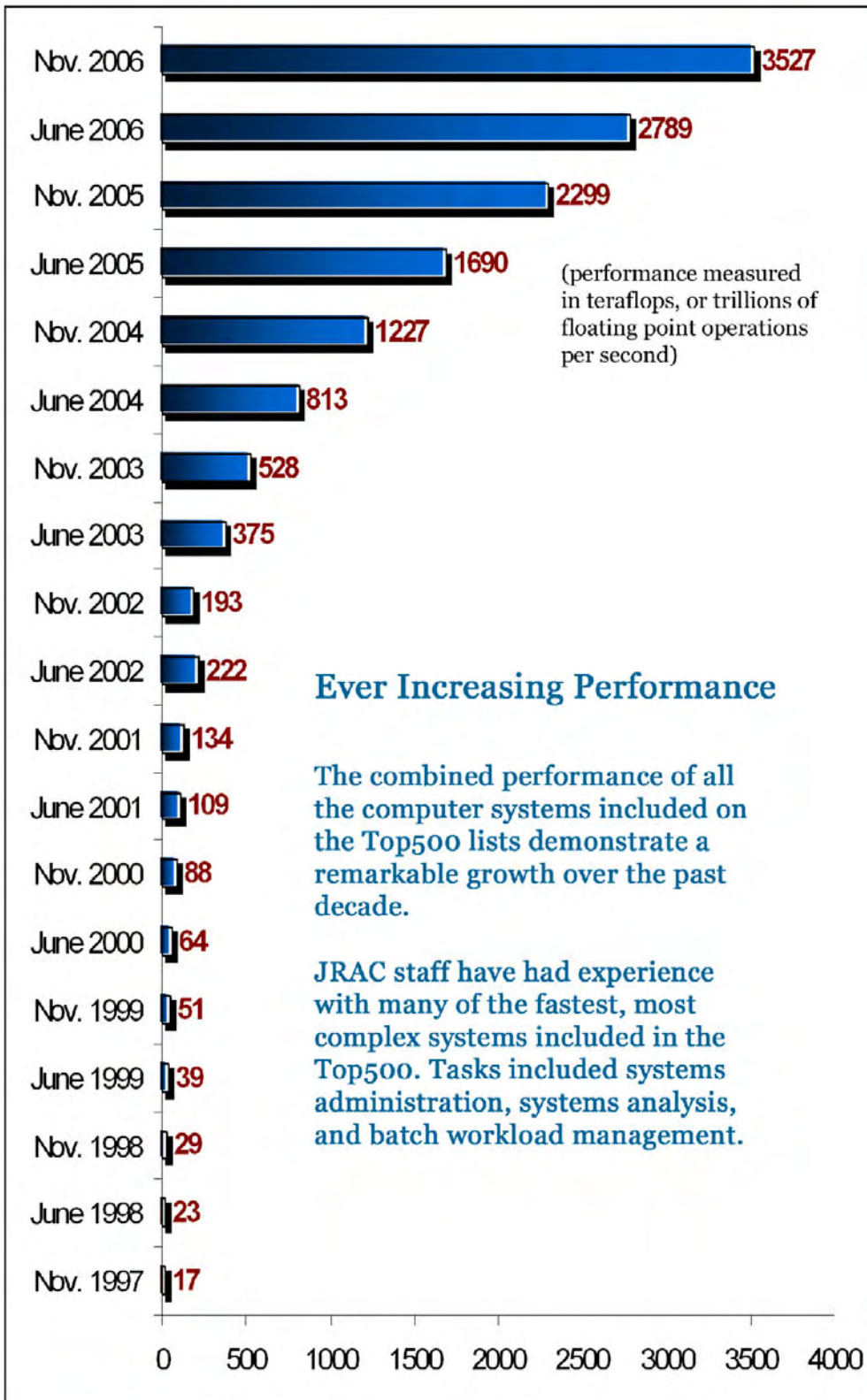
Mr. Dillingham has experience in scientific programming, numerical analysis, and financial modeling. He brings solid scientific modeling expertise to the JRAC team. He has 25 years of programming experience with NASA, DoD, university research, Wall Street technical analysis, technical writing, and as a professor of college physics. His major software experience includes FORTRAN, C, C++, and HPF on a wide range of architectures and operating systems (UNIX, Linux, Windows, VMS) and web development (HTML, PHP, SQL, CSS, Javascript).

**Organizations for which Ms. Utley has provided technical services (either direct or sub-contract):**

**NASA Ames  
NASA Langley  
DOD HPCMP**

**Organizations for which Mr. Dillingham has provided technical services (either direct or sub-contract):**

**NASA  
DOD ERDC MSRC  
Philadelphia Stock Exchange  
Traffigura LTD, UK  
Singer Aerospace  
Smith Barney  
LSU Medical Center**



### Ever Increasing Performance

The combined performance of all the computer systems included on the Top500 lists demonstrate a remarkable growth over the past decade.

JRAC staff have had experience with many of the fastest, most complex systems included in the Top500. Tasks included systems administration, systems analysis, and batch workload management.

Source: Top500.org

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