



## Jeffries Technology Solutions Telework Pioneers

Jeffries Technology Solutions, Inc. (JeTSI) is a small, specialized consulting firm within the space industry. JeTSI provides systems engineering & architecture, software development, and program management at any level the client needs. Whether a long-term, full-time commitment or a short-term, small project, JeTSI's corporate model of flexible tele-work can fit the bill by matching experienced engineers with project needs.

After years of working in the fields of engineering and software development within commercial and government organizations, Alan and Leslie Jeffries decided to branch out on their own. With a solid reputation in the space industry, Alan was able to pursue projects of interest and offer his expertise as well as his wife's engineering and software capabilities. They officially incorporated JeTSI in 2003 with a commitment to provide exceptional response and service to clients, a challenging and fun work environment, and mutually beneficial relationships within the space operations industry. In the past fourteen years, JeTSI has enjoyed contracts with various government prime contractors and worked on some exciting projects.

A pioneer in the area of corporate teleworking, Alan determined quickly that JeTSI did not need a dedicated office space to be successful and to meet client needs. JeTSI engineering consultants work from their home and at client work sites when necessary. They have no brick-&-mortar costs, and instead invest in corporate computer and communications infrastructure allowing employees to work efficiently from any location.

This accomplishes two significant goals of JeTSI:

- Providing a balance of lifestyle choices for career-tested aerospace engineers - empowering them to work on challenging projects, sharing their ideas and expertise while living the type of lifestyle they choose.

*and*

- Reducing the carbon footprint by reducing the number of cars on the road daily and the additional building costs of housing a company. Since engineers work primarily from home, gas usage and emissions are reduced. With no separate company headquarters building, JeTSI saves on heating, water, and paper products.

Alan and Leslie believe this approach sets JeTSI apart by providing experienced and premier engineering resources while reducing enormous energy costs for facilities and commuting.

Additionally, there are a number of other factors in the American workforce as a whole, and some unique to the aerospace industry, which make JeTSI's teleworking model advantageous for all sides. The number of workers reaching and approaching retirement age coupled with the lack of experienced, skilled workers to take their place, and the significant drop in American students pursuing careers in the

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engineering, math, and science arenas has the possibility of leaving America without space industry expertise. These are serious and valid industry concerns.

According to HR Magazine, “Economists at the U.S. Bureau of Labor Statistics (BLS) project that most new U.S. job openings in the coming decade will not stem from newly created jobs but rather from a need to replace workers exiting from existing jobs.” And the 2012 Space Report cites 45% of NASA’s current workforce is between the ages of 45 and 59. NASA will be facing a wave of retirement by the 2020’s significantly reducing the level of experienced workers. Furthermore, if you widen the age range to 40-60 year olds, more than 70% of NASA’s workforce is in that range while the overall U.S. labor pool is less than 45%.

Unfortunately finding younger workers to train and replace the retiring workforce is difficult. In 2001, there were only 148,000 degrees awarded to Americans in the engineering, math, and physical sciences – a 50% drop from the 1960’s and the lowest number in two decades. Despite the evidence that the unemployment rates for college graduates with degrees in STEM fields are lower than other fields, and salaries are higher (as much as 50% higher over a lifetime), only 16% of college students graduate in STEM fields according to a 2012 Georgetown University study.

#### Meeting the challenge with a 1,2,3 punch

As company owners, engineers, and science lovers, Alan and Leslie feel strongly about making a difference and turning these statistics around. One way is by providing aerospace engineers and scientists the ability to work a schedule that meets their lifestyle needs and still contribute to the industry even after retirement. A second way is by donating time and resources to schools and teachers working to foster a love, appreciation, and understanding of engineering, math, and science principles. The third way is by creating junior engineering positions within JeTSI to help train and mentor young adults who are still attending college and just getting started.

There are many engineers who like the idea of working from home or continuing some work after retirement, and being able to be a little more selective in their project choice. For some, the ability to take care of children or other family members, and still retain a professional career is the optimum situation. JeTSI’s flexible work arrangement allows engineers to identify the type of work they prefer, the number of weekly hours they can provide, and how much on-client-site versus off-site time they can accommodate. This improves their ability to meet both their personal and professional demands.

JeTSI offers clients a highly skilled worker with the technical training and experience to meet the needs of the project. Sometimes this means a person who is working on the project full time, but more often than not, the project need is met with fewer hours providing the client with the specialization to meet the requirements without the cost of paying for a full-time employee. JeTSI matches the engineers’ skill sets and availability with the clients’ project requirements and schedule providing a win-win solution.

In addition to meeting the needs of the aerospace industry for highly skilled and experienced engineers, JeTSI is very concerned about the next generation of American workers. They believe the disconnect between American students and the technical fields is an issue that needs to be addressed in order to keep America in the forefront of technological breakthroughs. It is vital to engage students while they are in school – from elementary school and on through college. With this in mind, JeTSI has made various donations to public school teachers desiring to engage their students with real applications of

technology and science through Donors Choose. It allows for the selection of the teacher and project one wishes to assist financially so the teacher can purchase the necessary tools.

JeTSI is always on the look-out for ways to engage young people within local communities and schools, and to help them to enjoy mathematical and scientific concepts. Just as enthusiastic as Alan and Leslie, many of JeTSI's engineers volunteer in their hometowns. Their hope is that the kids will stay enthusiastic about learning as they move through high school and into college.

As JeTSI grows, they want to bring in younger workers to work beside industry leaders. The more experienced, highly skilled engineers can transfer their technical and industry knowledge, act as role models, and mentor younger engineers. In 2014 JeTSI hired a part-time junior programmer. He is pursuing a computer science degree after serving for four years as a United States Marine. He is enthusiastic to be able to get "real-time" computer programming experience under the guidance of an experienced software engineer.

#### *Top Technology, Security, & Communication – the key to flexible tele-work*

To offer and accommodate this flexible work arrangement for employees and clients, JeTSI has to stay on the cutting edge of technology and security. Employees are provided with the computers and software needed to meet project demands. All systems are backed up daily, and strict protocols are in place to maintain security. Password programs, time-out features, and encrypted and secure file sharing systems are utilized.

To foster and ensure communication, JeTSI regularly employs WebEx and Skype teleconferencing to meet with each other and clients. This helps them to stay in close and regular communication and minimizes the need to travel. A secure employee Wiki allows them access to company documents, forms, calendars, and project collaboration. Additionally, the entire JeTSI team gets together twice a year to interact on various business opportunities and industry discussions, as well as grow team relationships.

So far, while there are only 14 on the team, turnover has been minimal, and those on board are happy to have the flexibility of work, and the sharing of ideas and expertise. Michael Stancati, a Senior Systems Engineer and previous SAIC Division Manager (*and Alan's boss*), says that Alan and Leslie "are doing it right" and is "very impressed with their business model."

For more information or to discuss JeTSI's services, please contact Leslie Jeffries. She may be reached at (703) 471-7588 or at [Leslie@jetsi.com](mailto:Leslie@jetsi.com).