



## (U//FOUO) Study Points Out 'Roadblocks to Change'

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(U//FOUO) Do institutional obstacles exist that make it more difficult to incorporate new tools into our technical SIGINT operations? According to a study, the answer is "yes"! The Emerging Technologies (ET) Program in the Office of Weapons and Space (S2J) tasked the Johns Hopkins University Applied Physics Laboratory (JHU/APL) to research technology trends and their usefulness in the technical SIGINT arena. The technologies researched were: multimedia, modeling and simulation, and three-dimensional (3D) visualization. Among other research findings, the JHU/APL study pointed to **three "roadblocks to change,"** largely self-imposed, that hinder the adoption of new technologies within the technical SIGINT world:

### 1. (U) **Resistance to Change**

(U//FOUO) In researching the technical SIGINT mission, JHU/APL was surprised at the number of analysts who were not only uninterested in improving the tools they used but were completely opposed to the idea. When asked why, some of the most common responses were:

- This has been tried before with awful results.
- If no one listens to the suggestions made by analysts, why should they support these types of studies?
- There is no time to learn new software tools; there is already too much to do, with fewer analysts to do it with.
- The tools currently available are sufficient.

For whatever reason, the lack of support from the analysts who will use the technologies is a major roadblock that must be addressed. Certainly, a 100% consensus on new technology will be nearly impossible to achieve. However, it is recommended that an attempt be made to understand the concerns of a representative number of the analysts before any decisions are made that will affect the tools they might be given.

### 2. (U) **Lacking Infrastructure**

(U) Given the support of the analysts, there remains the issue of a lack of a common infrastructure that could be used to maintain and nurture the use of new technologies. Although there are activities under way that are attempting to levy standards and organization, there remains the general impression that facilities, organizations, and even inter-organizational groups act independently. Tools that are certainly useful to the community tend to remain hidden -- if not buried -- and used only by those few who know about them.

(U) What is needed is an infrastructure capable of supporting the current mission and its associated processes and yet flexible enough to integrate and promote newer technologies. Although there is no panacea that can provide this right out of the box, a mentality must be adopted that focuses on universal access to data and applications and that promotes the fostering and care of processes by the community as a whole. As ideological as these statements sound, their acceptance is critical in forming the backbone necessary to successfully adopt new technologies.

### 3. (U) **Security Concerns**

(U//FOUO) Security awareness needs to be at the forefront of every list when making decisions about adopting technology. At the same time, there must be an understanding that business-as-

usual cannot be the corporate calling card when evaluating technology adoption. Advances in technology are providing users with ways to share information not thought possible in the past. Along with these capabilities come obvious security concerns and threats. This, however, does not mean that new technologies should be dismissed.

(U//FOUO) A number of times, JHU/APL was told that changes to data or reporting formats could not change because of security considerations. To be sure, security is an issue that must be considered and dealt with at the beginning of the technology adoption process. Although a challenge, security should not be looked upon as the litmus test for whether or not a technology should be adopted.

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