Region 2 Technology Policy Issues
Report on Technology Strategy

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Key issues

ITAR and EAR

Implications of Sequestration on Federally supported R&D

H-1 Visas affecting leadership

STEM initiatives in the region

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ITAR (International Traffic in Arms Regulations)

Significantly limits opportunities for Region 2 technology and engineering entities to secure opportunities in the international sphere.

Based upon outdated Cold War assumption that US technology is automatically in the lead, and restricts interactions accordingly. Also assumes principal defense competition is with a peer competitor, which has not been true since 1992. China's approach to technology acquisition is not well impacted by US Policy. China gets training for lead technology staff in the US, then takes advantage of poorly structured visa rules to ensure their return to lead well funded programs on mainland.

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Implications of Proposed Reductions in Federally supported R&D

OUTSIDE of the IT realm, significant leadership roles exist with federal R&D.

Sensor tech - Where US does have some leadership (e.g. advanced RADAR, 3-D LIDAR, highly integrated focal plane and processor assemblies) the international community will take full advantage of economic cuts in 6.2 (Advanced R&D) and 6.3 (Acquisition level) research to move ahead and control the markets.

GNC - Critical upgrades and maintenance of GPS may be pushed aside for options which meet limited DoD needs, but don't support the open applications that every smart phone user now relies on day-to-day

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Implications of Proposed Reductions in Federally supported R&D (cont'd)

Transportation - Advanced fuels, safer and more efficient engines, smart operating systems all rely on some degree of support and subsidy from DoE and DoT, both of which suffer under SQ

Meteorological prediction and amelioration - With increasing US awareness of the mercurial effects of changing climates (e.g. the Virginia derecho, Sandy, the record highs and lows in Eastern Seaboard temperatures, the current Western drought) comes the need to advocate for maintenance of the NOAA (GOES, POESS) and DoD (DMSP) Global meteorological monitoring systems to gain predictive awareness of how the climate operates.

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Implications of Proposed Reductions in Federally supported R&D (cont'd)

Communications and data protection algorithms – Much of the actual infrastructure of the US is driven by properly maintained and secured communications and IT. Continual investment and new research is required to keep ahead of the cyberwarfare and cybercrime

These budgets are not well protected by administration warnings to support high tech, since the option on the part of the unit organizations is to protect ongoing programs favoring these over unproven research.

Specific attention to DARPA, IARPA, Military and DOE labs, and the Federal and State S&T Lobbies will be critical during the fiscal re-set.

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H-1 Visas issues affecting tech leadership

US continues to train to the PhD level the best of Indian, Middle Eastern, and Asian scientists and engineers, then sends them home to compete with US industry for international tech products and funding. This despite the fact that the technologies they are then qualified to engage with are the self same technologies restricted by ITAR.

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STEM initiatives in the region

The process of encouraging technically motivated thought leaders begins with inspiration at the Primary School level.

Federation of Galaxy Explorers

Scouting initiatives

E-week interactions

It is critical that science, engineering and technology organizations throughout the region adopt schools and foster excitement at this and the junior high school level rather than waiting till High School to engage - by then we have lost the momentum to sports and other foci.

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