Small Business Perspective on The STTR Program

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Past Case Study

- Advanced Ceramics Research, Inc. (ACR)
  - Multiple STTR programs for UAV – 2001
  - Teaming multiple Universities
  - Teaming multiple Small & Large Businesses

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Case Study

Small UAV STTR Programs from Office of Naval Research:

STTR Program for Smart Warfighter Array of Reconfigurable Modules (SWARM) Phase I, II, and III. Teamed with University of Arizona

STTR Programs (4) for Autonomous Intelligent Network of Systems (AINS). Teamed with UCLA, UC Berkley, MIT, and University of Arizona. Phase I, II, and IIIs.

Industrial Partners included: Cloud Cap Technologies, Lockheed, TACGEO

Government Partners included: NAVSEA Carderock, NAVAIR 4.5, Navy Special Clearance Team One, Air Force Academy, U.S. Geological Survey Volcano Disaster Relief Program, NSF/NOAA/NASA.

Results Summary

- First STTR Phase I and 4 follow on STTR programs led to over $85 million in follow business and acquisition by BAE.
- Over $200 million on Silver Fox to date
- Now owned by Raytheon and moving forward
- Second STTR program for Coyote now getting large Phase III traction

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Technical Challenge

- ITAR (International Trade and Arms Regulations)
  - Difficult for some Universities to manage
  - Difficult for most Professors to manage
  - Difficult for most small defense companies to manage
  - Many Graduate Students are not U.S. Citizens
  - Compounding problem is that many decision makers in the industry do not understand "U.S. Citizen or Permanent Resident". They default to "U.S. Citizen" only
  - Maintaining controlled facilities and information/data

Overcoming these technical challenges brings the Small Business Entity many steps closer to begin to do foreign export.

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Lessons

- Right Professor and students to team with
  - Chemistry between Company PI and Professor is critical
  - Students can become employees of company
  - Approach for long term relationship
- Right Expectations on both sides
  - Who is responsible for what
  - Time frame, Universities are on different time line
- No Conflicts in Core Business Priorities of Each
  - Company and University must be clear on synergistic paths, not competing
  - This also includes, students, professor, PI and company employees

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Lessons

- Comprehensive IP agreement with details on patenting, publications, and licensing
  - Much easier to do before something perceived to be valuable is discovered
  - With right legal counsel this is relatively easy
- Pre-agreements for Conflict Resolution
  - Agreeing on how to agree later is much easier and prevents bad tensions with team members after the fact.
- Right timing with regard to program and Professor Student cycle
  - Projects that deliverables line up with School Calendars are much easier to perform well on. Critical for Phase I efforts

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