



Mark Heslop
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### Nalas Engineering Services Inc.

Nalas Engineering offers chemistry and chemical engineering expertise enabling the development. and transition of safe, sustainable, robust and lowest-cost chemical processes. Nalas provides small scale chemical manufacturing and production capabilities, including critical chemicals.

Small Business
Established in 2008
48 employees
Current Work (60% Gov. – 40% Commercial)
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# Small Business Government Contracting Challenges and Opportunities

Challenges - Small Businesses have limited funding, resources and personnel to comply with Government contracting requirements.

- Working with Defense Contract Audit Agency (DCAA) or
- Defense Contract Management Agency (DCMA),
- Managing Government Property,
- Implementing Earned value management systems,
- · Reporting requirements; CDRLs

Opportunities - Each federal agency has a different small business contracting goal. The SBA ensures that the sum total of all of the goals exceeds the 23% target for the federal government. The Federal Government Achieved its Small Business Contracting Goal for the Fifth Consecutive Year with Record-Breaking \$105 Billion to Small Businesses https://www.sba.gov



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### Identify a Government Need or Want

- Nalas reviewed The Technical Cooperation Program (TTCP)
   Critical Materials for Energetics and Propulsion Area of
   Interest Annual Report.
- Nalas identified a Government need for a domestic source of:

BDNPA [bis(2,2-dinitropropyl)acetal] and BDNPF [bis(2,2-dinitropropyl)formal] Nitroplasticizer BDNPA/F - 50:50 mixture

O<sub>2</sub>N NO<sub>2</sub> O<sub>2</sub>N NO<sub>2</sub> O<sub>2</sub>N NO<sub>2</sub> O<sub>2</sub>N NO<sub>2</sub> O<sub>2</sub>N NO<sub>2</sub> O<sub>2</sub>N NO<sub>2</sub> O<sub>3</sub>N NO<sub>3</sub> O<sub>4</sub>N NO<sub>4</sub> O<sub>5</sub>N NO<sub>5</sub> O<sub>5</sub>N NO<sub>5</sub>N NO<sub>5</sub> O<sub>5</sub>N NO<sub>5</sub> O<sub>5</sub>N NO<sub>5</sub>N NO

- Nalas is positioning itself to be the premier provider of critical chemicals
- Small Business Innovation Research (SBIR)
  - The Small Business Innovation Research program is a United States Government program, coordinated by the Small Business Administration, intended to help certain small businesses conduct research and development. Funding takes the form of contracts or grants. The recipient projects must have the potential for commercialization and must meet specific U.S. government R&D needs
  - Nalas awarded a SBIR to optimize the lab scale chemistry to develop BDNPA/F



# Success – Perseverance, Technical Performance, and Quality Product

2019

#### **Army Program Office**

Develop, install and operate a small scale production process to domestically manufacture BDNPA/F

2018

#### Life Cycle Pilot Process LCPP- Army Program

Nalas awarded a contract to develop and optimize a continuous manufacturing process. Verify extended run times of the optimized process. Deliver another 100 lb batch of material demonstrating improved yields

2017

#### **Environmental Security Technology Certification Program(ESTCP)**

DoD's environmental technology demonstration and validation program. Nalas awarded a contract to reduce manufacturing wastes

2016

#### **Energetic Materials and Advanced Processing (EMAP)**

Nalas awarded a contract to continue small scale optimization and to deliver an initial 100-lbs to ARDEC for making PAX explosive formulation

2015

## Army R&D Future Requirements of Enhanced Energetics for Decisive Munitions (Freedm )

Nalas awarded a contract for small scale optimization and to develop the manufacturing process



## **Achieving Success is Hard Work**

- Small Business Contracting is Not an easy process
- Requires patience and perseverance
- Must Deliver a Quality Product on Schedule
- It helps to cultivate a good working relationships with the respective government organizations
- Keep an open mind. Try to work with different government agencies.
- Success is Achievable!!!



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## **Nalas Facility- Home to Critical Chemicals**



