



**CSAT**

**17-18 May, 2011**

**Worcester, MA**



**Greetings!**



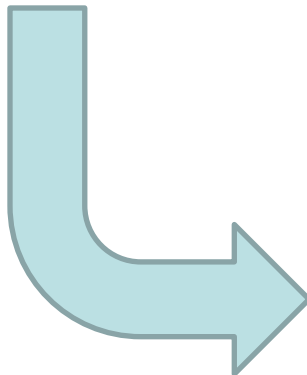
# The DSC, The Home of Heroes Center For Manufacturing Excellence, and Additive Manufacturing Technologies





Qualification/Certification/Facility

Technical/Application Oversight



Program



# The Situation (s)

1. **Corrosion Costs**
2. **Extreme Part Backorders**
3. **Under-compliance with Federal Veteran Utilization Laws**





# Corrosion – the Perfect Storm

**Table ES-1. Cost of Corrosion Studies \***

Study year	Study segment	Annual cost of corrosion	Data baseline
2007–2008	Navy and Marine Corps aviation	\$3.0 billion	FY2005 and FY2006
	Coast Guard aviation and vessels	\$0.3 billion	FY2005 and FY2006
2008–2009	Air Force	\$5.4 billion	FY2006 and FY2007
	Army ground vehicles	\$2.4 billion	FY2006 and FY2007
	Navy ships	\$3.2 billion	FY2006 and FY2007
	DoD–Other equipment	\$5.1 billion	FY2006
2009–2010	Marine Corps ground vehicles	\$0.5 billion	FY2007 and FY2008
	DoD facilities and infrastructure	\$1.9 billion	FY2007 and FY2008
	Army aviation and missiles	\$1.4 billion	FY2007 and FY2008

**\* THE ANNUAL COST OF CORROSION FOR ARMY AVIATION AND MISSILE EQUIPMENT** , September 2010

According to a recently published study, the annual cost of corrosion to the Department of Defense for infrastructure and equipment is estimated to be \$22.5 billion.\*\*

\*\* Under Secretary of Defense (Acquisition, Technology and Logistics), *DoD Annual Cost of Corrosion, July 2009.*



## Corrosion – the Perfect Storm

***Table ES-2. Army Aviation and Missile Corrosion Costs (\$ in millions) \****

<i>Data baseline</i>	<i>Total Corrosion</i>	<i>Corrosion DM/FLM</i>	<i>Total DM/FLM</i>	<i>Corrosion as a percentage of Total DM/FLM</i>
FY2005	\$1,518	\$1,434	\$7,278	19.7%
FY2007	\$1,493	\$1,432	\$7,758	18.5%
FY2008	\$1,424	\$1,355	\$6,610	20.5%
Total	\$4,435	\$4,221	\$21,646	19.5%

Notes: DM = depot maintenance; FLM = field-level maintenance.

**\*THE ANNUAL COST OF CORROSION FOR ARMY AVIATION AND MISSILE EQUIPMENT , September 2010**



## **Extreme Part Backorders – feeding the Storm.**

**There are two primary reasons that parts get on the “extreme backorder” list:**

- 1. Because the tech data to make it no longer exists.**
  - and therefore becomes very expensive to procure.**
  
- 2. Because a vendor cannot be found to make a small production run.**
  - This primarily effects older fielded systems such as B-52 and C-5, etc**



## Okay, why is it relevant?



A corroded component had caused both engines of an Apache attack helicopter to suddenly shut down - forcing it to land on an open field in Woodlands in September.



(March 15, 2011) An HH-60H Sea Hawk helicopter assigned to the Black Knights of Anti-Submarine Squadron (HS) 4 prepares to land aboard the aircraft carrier USS Ronald Reagan (CVN 76) to take on humanitarian supplies. Operation Tomodachi - Japan





**Under-utilization of Veteran-owned businesses, though not a root cause, keeps the clouds of the Storm swirling nonetheless, and plays a role in the project, as you will see:**

- ***The public law and performance to date.....***
  - ***Public Law 106-50 of 1999 – Goal of 3% of Federal Awards be made to SDVOSB***
  - ***Public Law 108-83 of 2003 – providing legislative guidance on how to achieve 106-50***
  - ***EO 13360 of 2004 – requiring all agencies to submit plans to better meet 106-50 and 108-83***



## So, what does that mean?

In terms of real dollars it **should have** equated to:

- \$6,120,000,000 SDVOB contract dollars -FY 2000
- \$6,570,000,000 SDVOB contract dollars -FY 2001
- \$7,050,000,000 SDVOB contract dollars -FY 2002
- \$7,050,000,000 carried forward-FY 2003
- \$7,050,000,000 carried forward-FY 2004

**In reality**, Federal agencies have contracted with SDVOB's for roughly 2/10 percent of total Federal contracts since the law was implemented.

- \$554,167,000 in FY 2001 (0.25)
- \$298,901,000 in FY 2002 (0.13)
- \$510,135,596 in FY 2003 (0.21)

\*The actual expenditures for 2004 - present are not currently available, however no significant improvement has been seen.

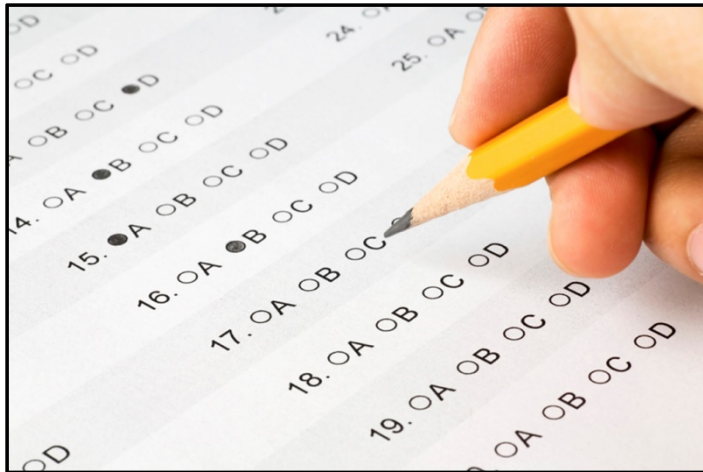


**Now, let's tie this all  
together and define  
what we're doing!**



**The essence of this effort is to :**

- **Reduce Corrosion Mitigation Costs using Cold Spray Technology**
- **Alleviate extreme backorders**
- **Through repair or small-volume manufacturing, return platforms to service faster and at lower cost than current methods allow**
- **Use Veteran-Owned firms where possible to assure higher ordering preference from the Department of Defense**  
(not to mention because it's the right thing to do!)



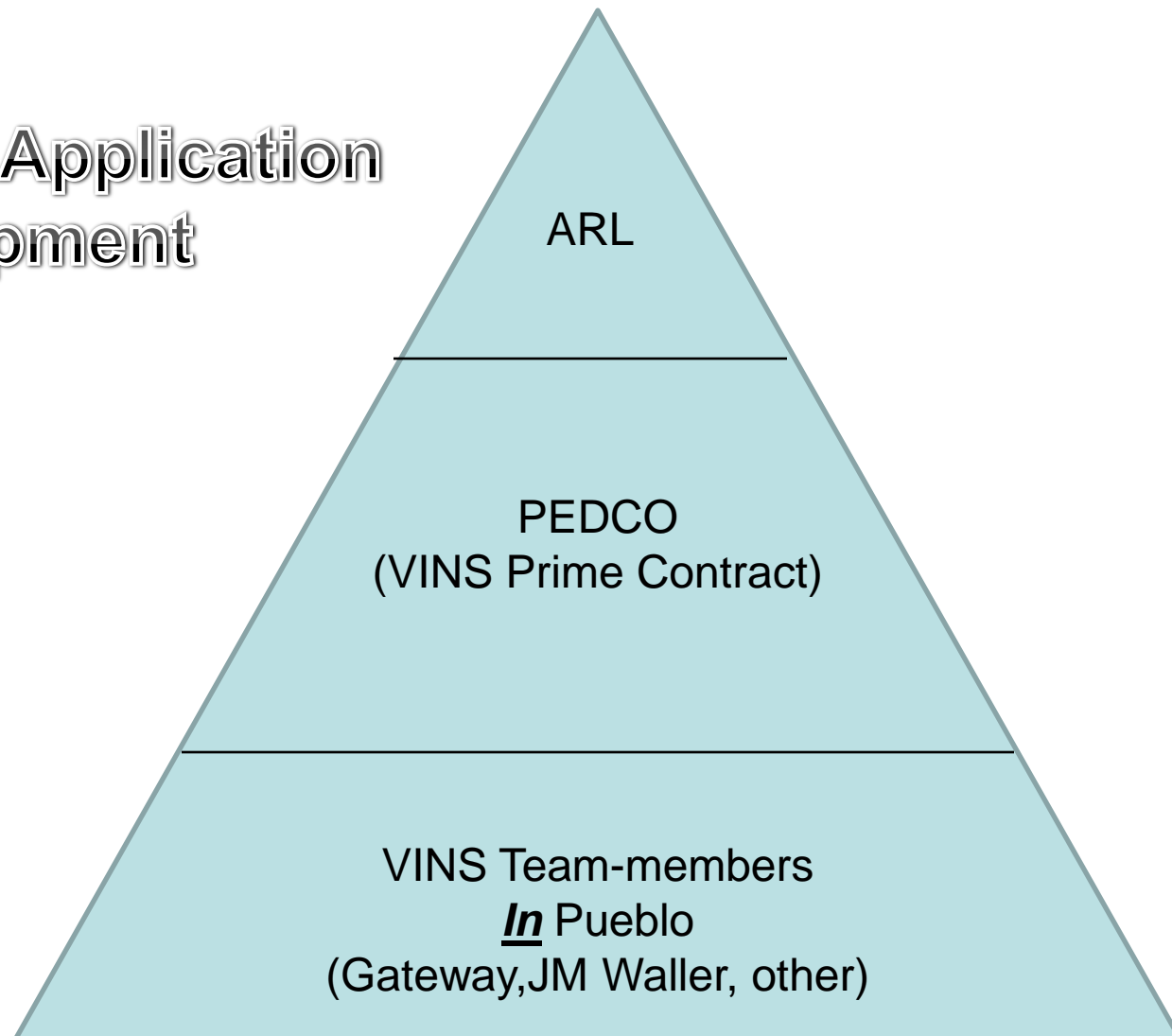




# Our Solution

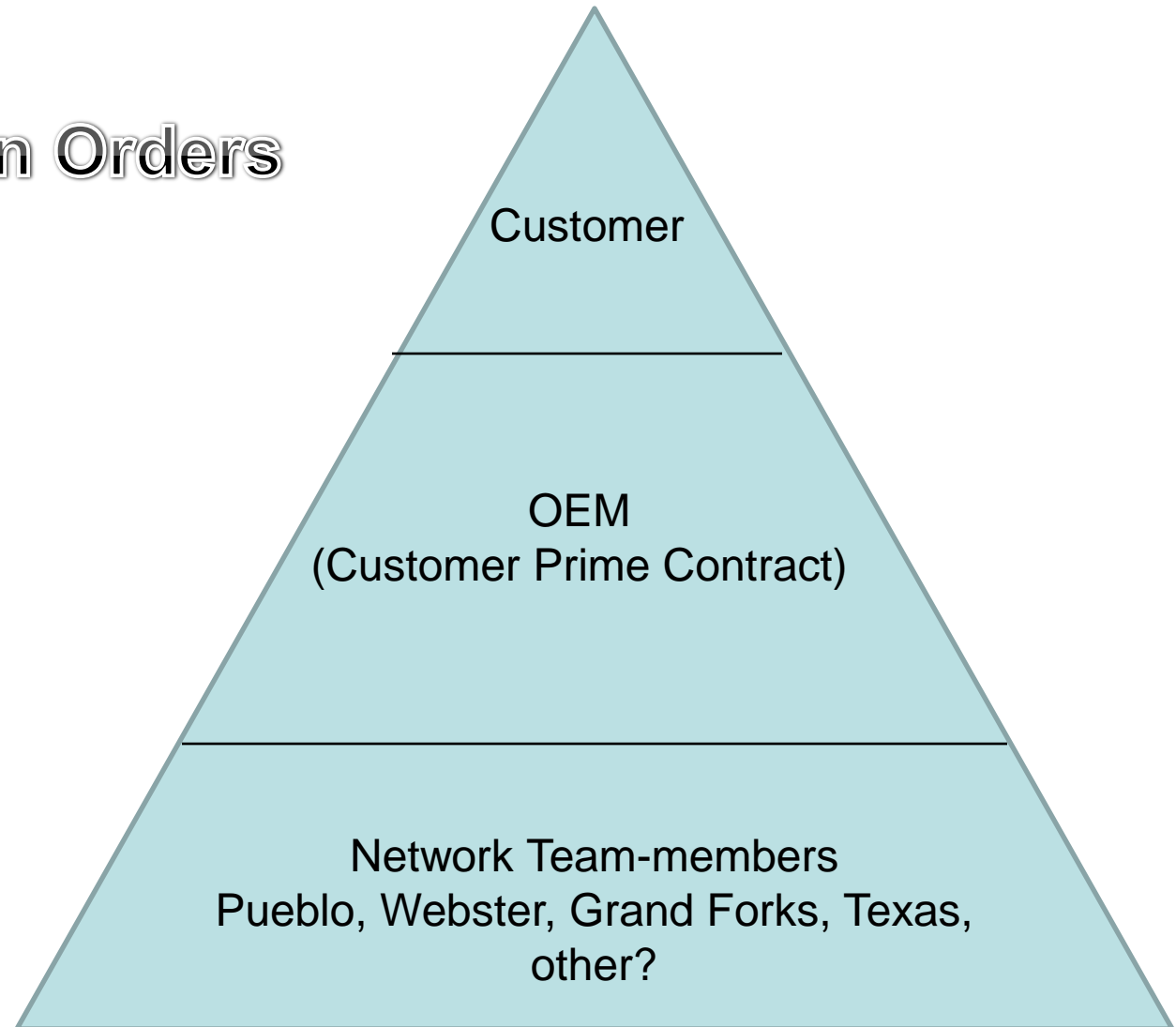


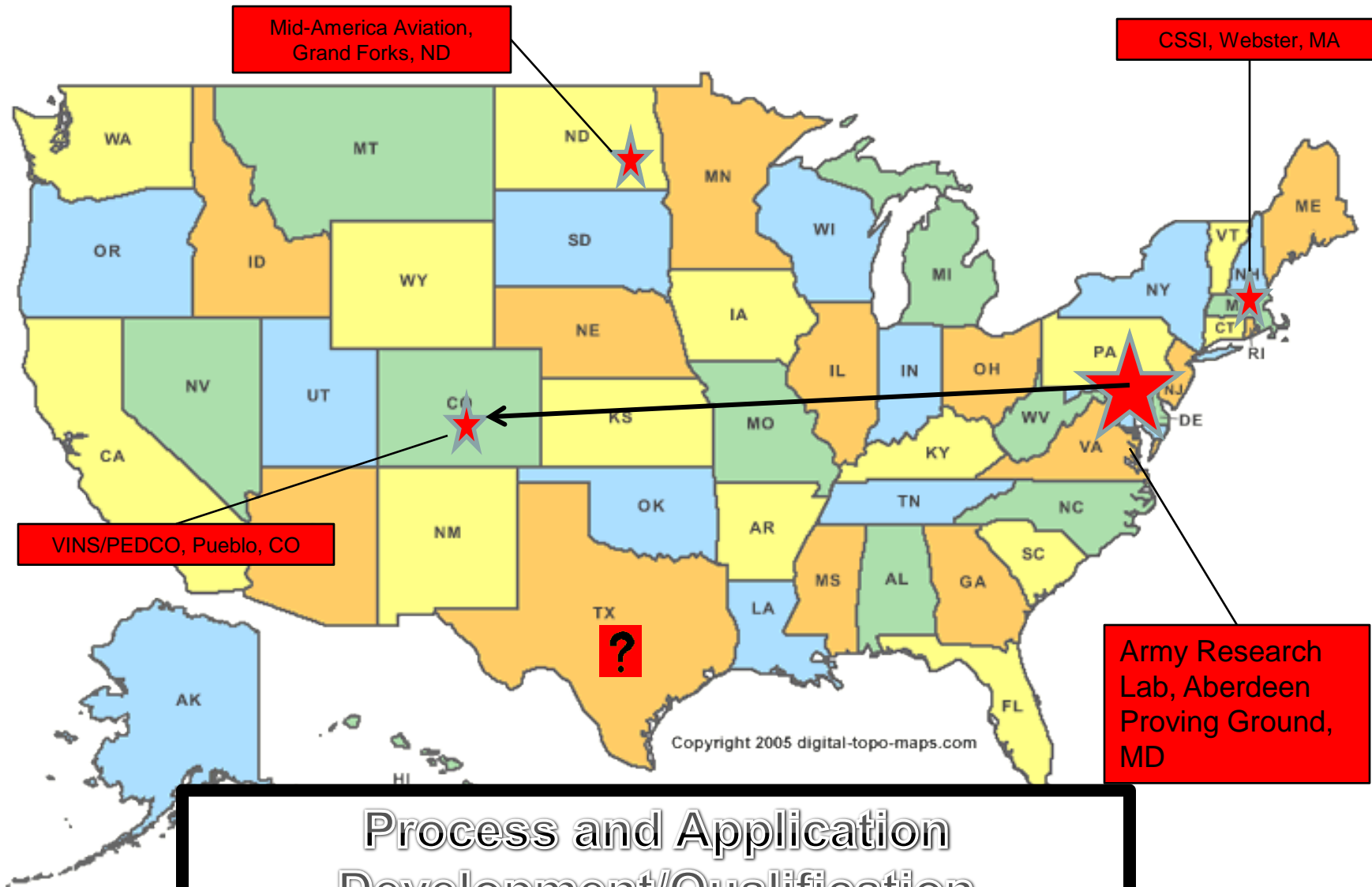
# Process and Application Development





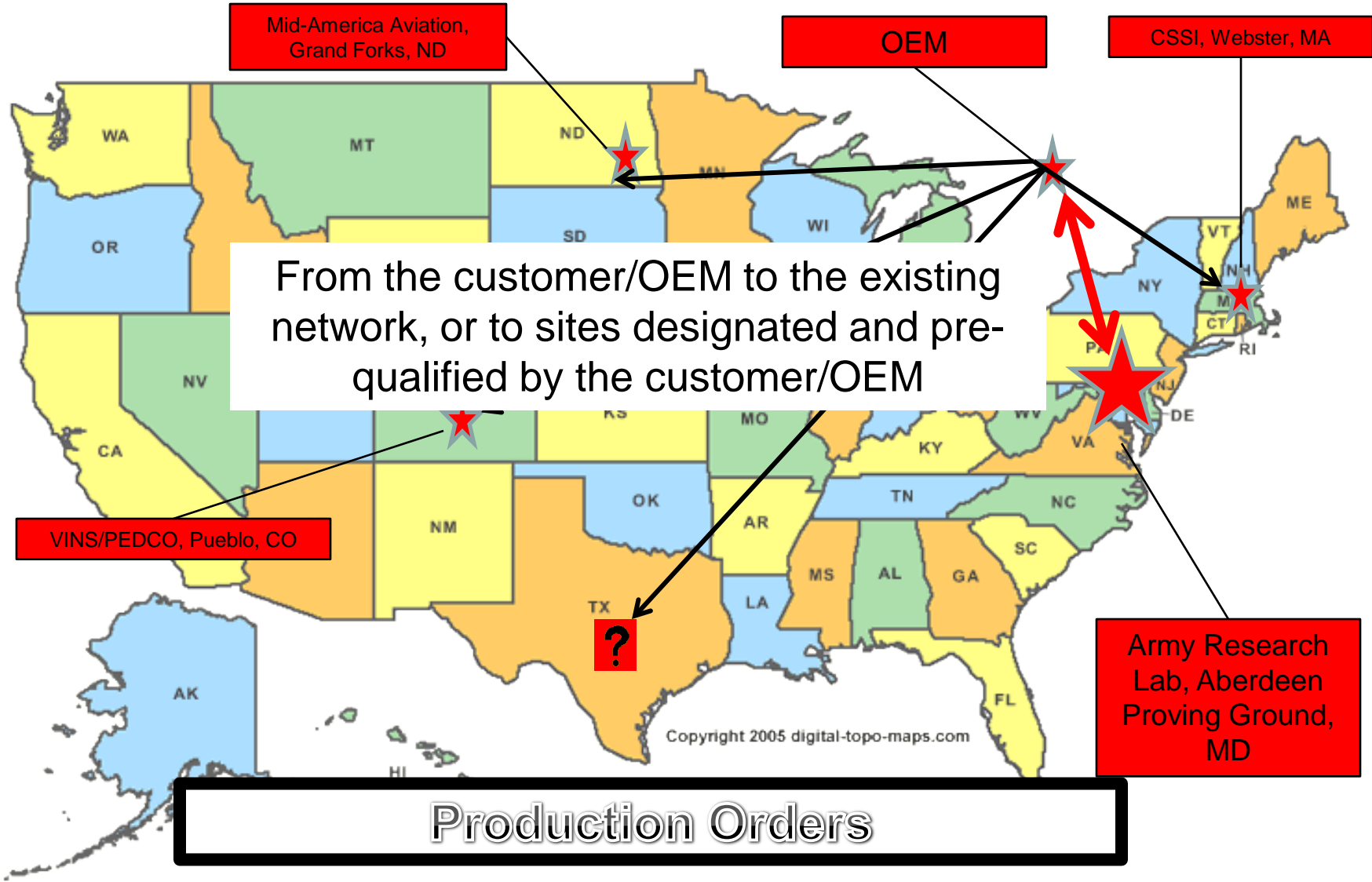
# Production Orders





Process and Application  
Development/Qualification





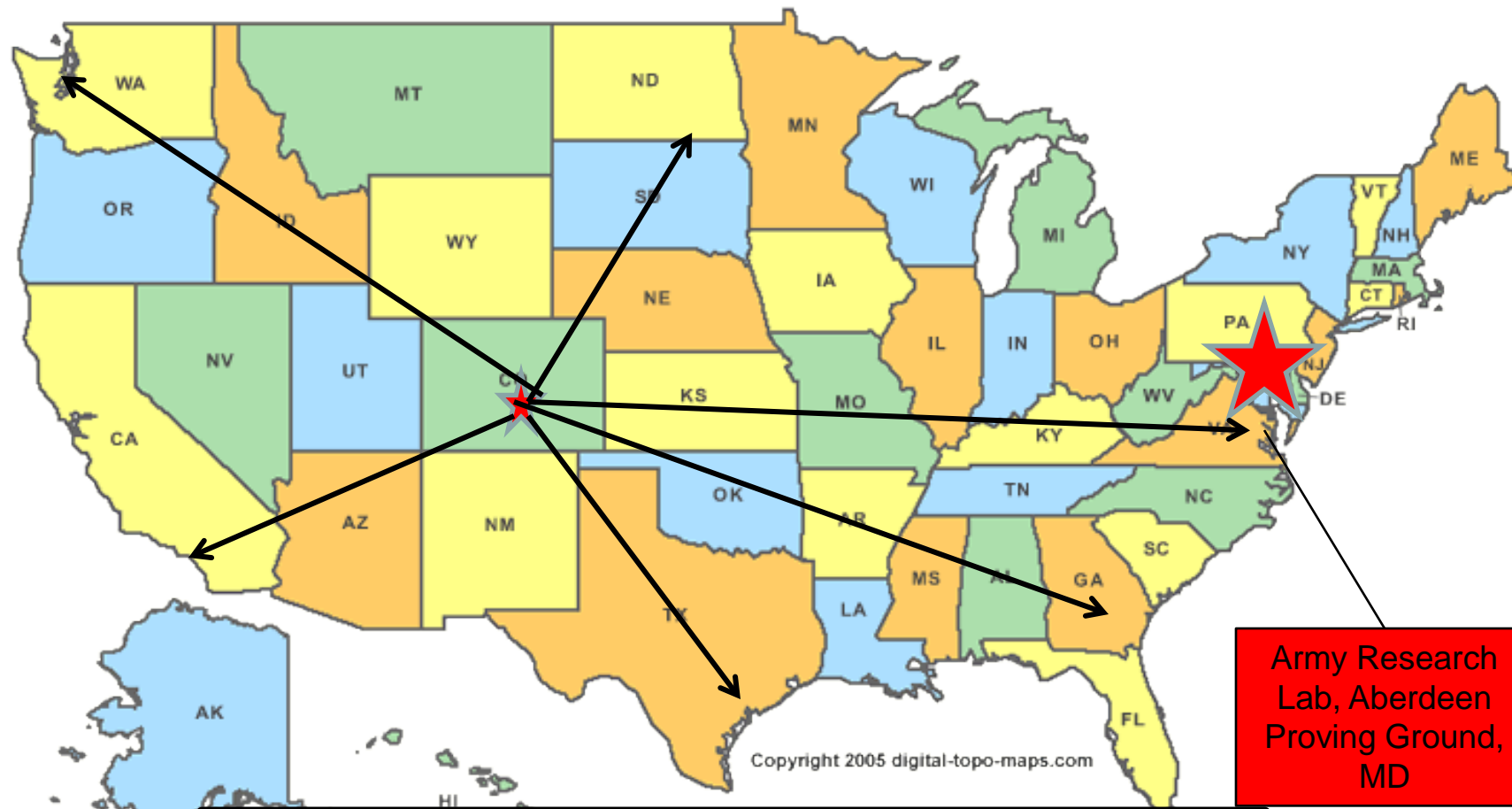


# Mobility



# Mobility





# Mobile Applications





## Okay, so what's the Veterans Angle?



We believe that our Nation's Veterans and Disabled Veterans represent a:

Capable, reusable resource for resolving mounting DoD needs that, taken on the whole are spiraling out of control, but taken individually, are too small to attract the attention of the Tier-I Prime contractors and Manufacturers. This is not about entitlement, it is about utilizing and maximizing an untapped – or 'under-tapped'- pool of capability to help resolve these issues.

A reminder about what the VINS program is all about.....



## WHY CHOOSE PUEBLO?



**When President Dwight D. Eisenhower** placed the prestigious Medal of Honor around the neck of Raymond "Jerry" Murphy in 1953, he asked a good-natured question about Murphy's hometown of Pueblo, Colo. "What is it in the water out there?" Eisenhower wanted to know. "All you guys turn out to be heroes." Indeed, four recipients of the nation's highest award for military bravery have called Pueblo home. Because of the distinction, Congress in 1993 designated Pueblo the "Home of Heroes."



Pueblo's hometown heroes returned to unveil a display in their honor at the Pueblo Convention Center March 18, 1998 Photo by "The Pueblo Chieftain"

Drew Dix

William Crawford

Carl Sitter

Raymond Murphy





## WHY CHOOSE PUEBLO?

Alright, you now know why the Program chose Pueblo.  
The question now is;



WHY SHOULD *YOU* CHOOSE PUEBLO?

Jeff Shaw

Pueblo Economic Development Corporation





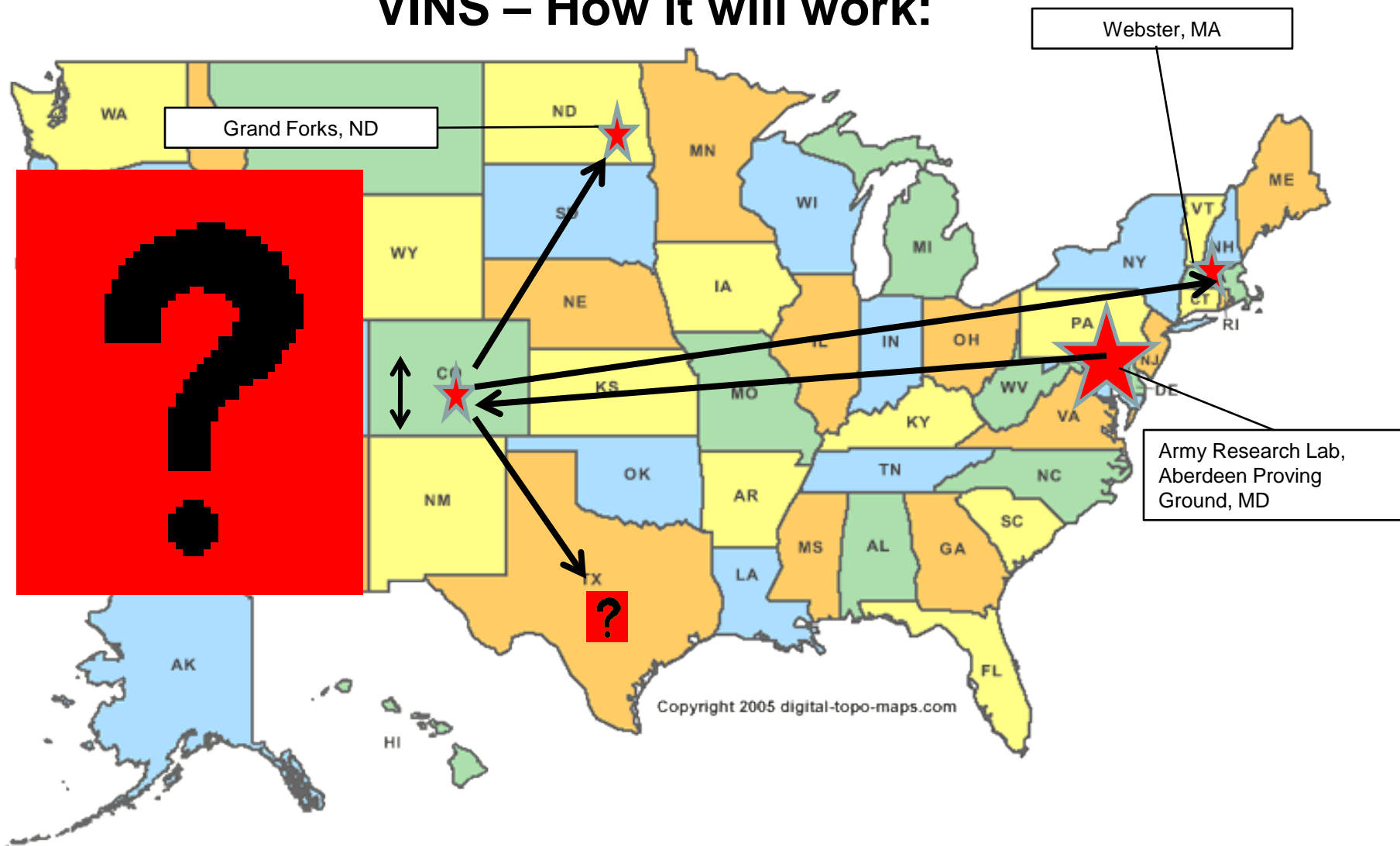
[www.pedco.org](http://www.pedco.org)







## VINS – How it will work:





Discussion?