



# ***US Central Command Technology Development***

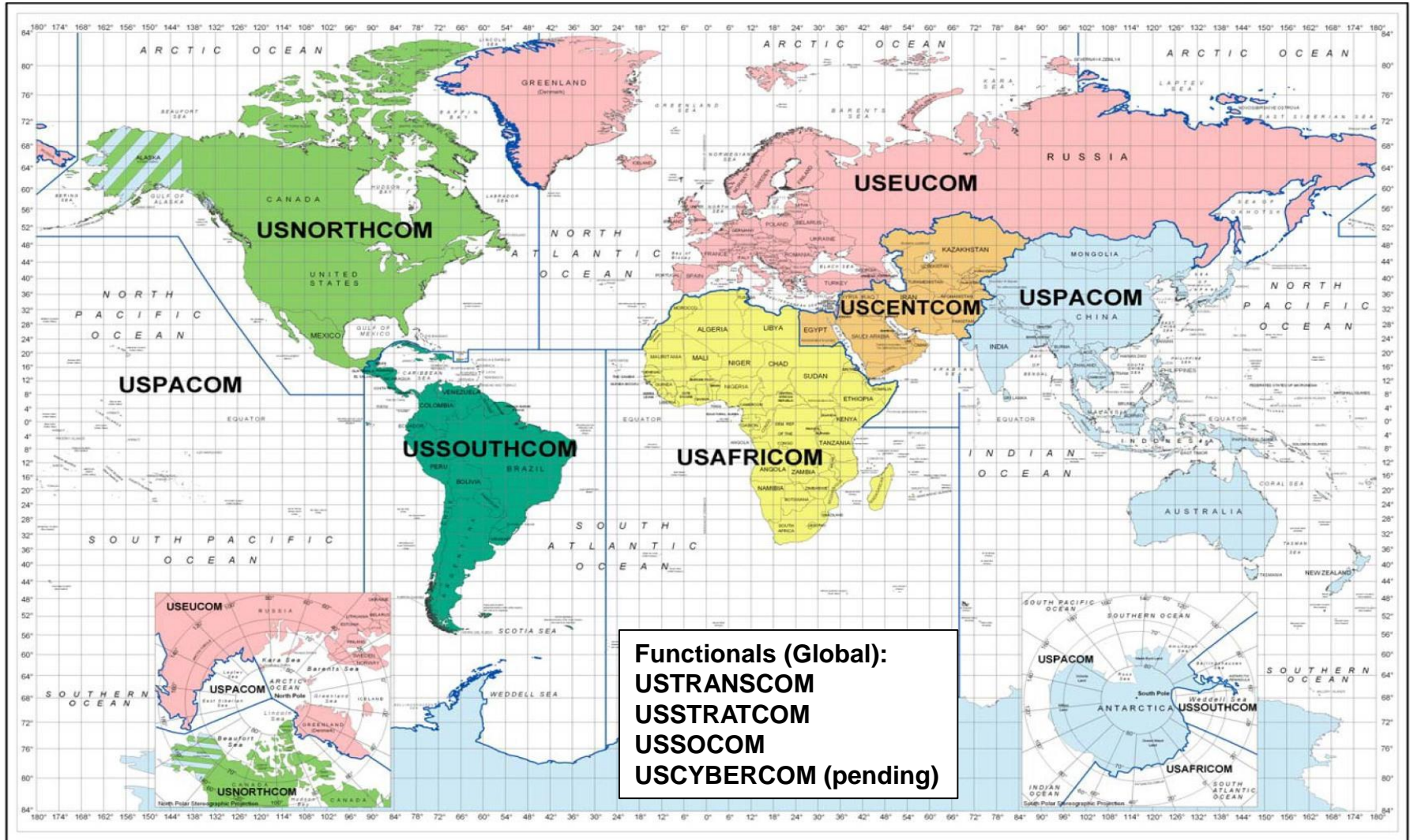


# THE WARFIGHTER





# People Like Me – Geos & Functionals



**Functionals (Global):**  
USTRANSCOM  
USSTRATCOM  
USSOCOM  
USCYBERCOM (pending)



# ***CENTCOM - Area of Responsibility***

## **Complex**

- 20 Countries, 4.5 million square miles
- 1.1 Million square miles of ocean
- 531 Million people, 16 major ethnic groups
- 7 Major languages, hundreds of dialects
- 4 Major religions

## **Global Economic Impact**

- Arabian Gulf produces ~ 31% of world crude oil
- Region exports ~ 26% of global LNG supply
- 3 x Strategic Choke Points
  - Appx 40% internationally traded oil transits Strait of Hormuz
  - 21% of LNG goes through Strait of Hormuz





# ***Evolving Landscape***

- **U.S. maintaining presence in Iraq and Afghanistan**
- **U.S. priorities shifting**
- **Instability continues across the AOR**
- **Foreign fighter flow continues across porous borders**
- **Russian / Iranian involvement**
- **Yemen activity and support to regional partners**
- **Counter-Piracy mission continues**
- **Several splinter terrorist groups emerging**
- **Refugee / Displaced Persons movement**
  - **As a result of conflict; seeking a better life**
  - **Potential natural/manmade disaster**



# USCENTCOM S&T Charter

Conduct ***discovery, research, analysis, and sponsor development*** of new and emerging ***technologies*** and ***concepts*** which have the ***potential to provide solutions*** to Headquarters and Component validated Joint needs.

***Review*** USCENTCOM and Component ***plans, operations***, programs, policies and activities for areas where ***technology/new technique*** will improve efficiency and effectiveness.

***Integrate*** across USCENTCOM headquarters and Component staffs for transformational, integrating, and experimentation activities.



# *U.S. Central Command Tech Focus*

- We focus on the **JOINT** solution that has the potential to satisfy a **JOINT validated** need
- Separate from the many technology needs of our customer(s) those technology challenges which:
  - *Do not have a readily available solution*
  - For high-impact needs there is *insufficient activity pursuing a solution*
- Seek out game-changing technologies which our customer(s) don't know they need



# How I Find New Technologies

I go to people's Homes, Garages, Basements, Conventions, Technology Events (NOT DoD), Conventions, Labs, Incubators, and more  
 -Have even found technologies in the basement of a Synagogue, NOT just in DC or Silicon Valley, Started TTDs in 2010

Work with DTIC and DTIC Field Advisors. I WILL GO ANYWHERE TO FIND TECHNOLOGY FOR THE WARFIGHTER!!!

Events in 2018 - at no cost except airfare, hotel and meals...NO CONFERENCE FEES and all put on for the Warfighter, First Responders, and other Governmental agencies like the CIA, FBI and more...the only cost for any participant is a lunch fee. As many presenters cannot afford the cost.

1. TTD New York City, Brooklyn, Ms. Bev Corwin. Feel free to contact Bev at [technologytransferdays@gmail.com](mailto:technologytransferdays@gmail.com) Mobile: 347-908-7098, Skype: bevcorwin I am attaching her Flyer 30 Apr-4 May & 7-11 May, 2018
2. National Innovation Summit, TTD Huntsville, AL. POC Mr. Terry Griffin -256-975-1285, 17-20 July, 2018
3. TTD Columbus, OH Lisa Delp, C: 614-460-9688 - August Dates -TBD
4. Encountering Innovation Wichita, Kansas Alan Badgley, 316-978-6624, 8-12 October, 2018
5. TTD Tempe, AZ Wes, November Dates -TBD

Also what we did not talk about during the week long events:

1. When morning Group of presenters is briefing the afternoon Group or presenters will be meeting with:
  - a. SBDC people, SBIR (monies), State PTACS, DTIC-FA's, and VENTURE Capitalists!
  - b. In the afternoon session vice-versa

Possible TTDs being added in 2019

1. Texas, Austin
2. Kansas,
3. Missouri (possibly)
4. Florida (possibly)

FIND a New Technology...I "SOCIALIZE" it with the COCOMs, SERVICES, SERVICE LABS, DHS/FBI/CIA/DOS/WHO/USAID & More



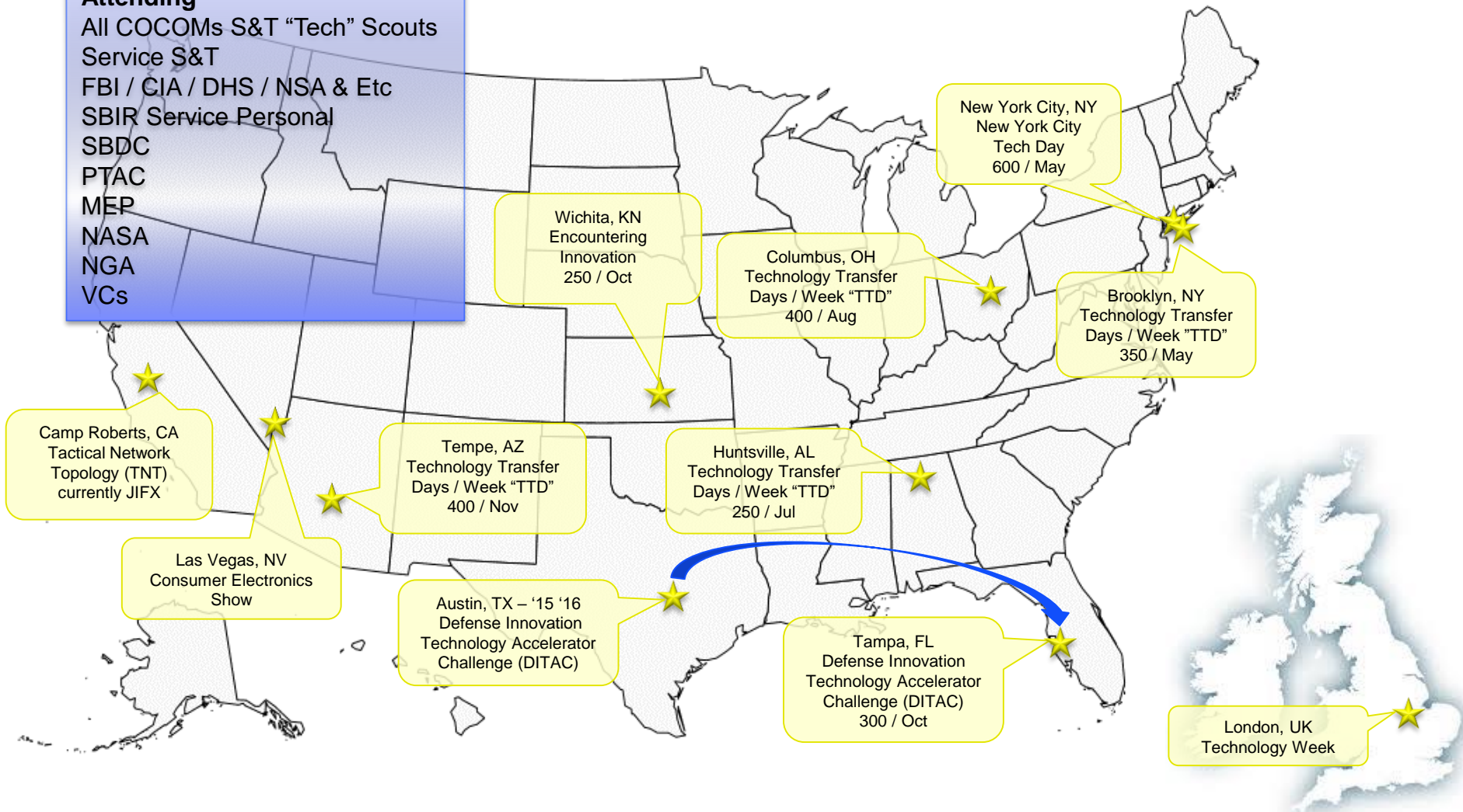


# USCENTCOM

## Science and Technology Outreach

### Attending

- All COCOMs S&T "Tech" Scouts
- Service S&T
- FBI / CIA / DHS / NSA & Etc
- SBIR Service Personal
- SBDC
- PTAC
- MEP
- NASA
- NGA
- VCs





## ***Some technology areas we “pursue”:***

- **Detection of CBRNE at tactically significant distances; with emphasis on a little “e”**
- **Pre-shot counter-sniper, counter-mortar, counter-RPG technologies; with emphasis on automated systems**
- **Technologies which enable the transfer of information more securely, more quickly, to a wider set of users, to include the warfighter when it makes sense, with less bandwidth and dedicated support resources, e.g.:**
  - **Multi-level Security over single architectures**
  - **Bandwidth compression / reduction techniques**
  - **Data to Decision [data=>info=>knowledge=>understanding=>wisdom]**
- **Through automation, remote action, new and novel techniques & technologies which reduce risk and / or stress on the force and / or improve the efficiency and effectiveness of our action(s)**
- **Technologies which allow for greater persistence over the battlespace with fewer platforms; employing improved sensor technology providing greater fidelity of information**



# Thematic areas of concern

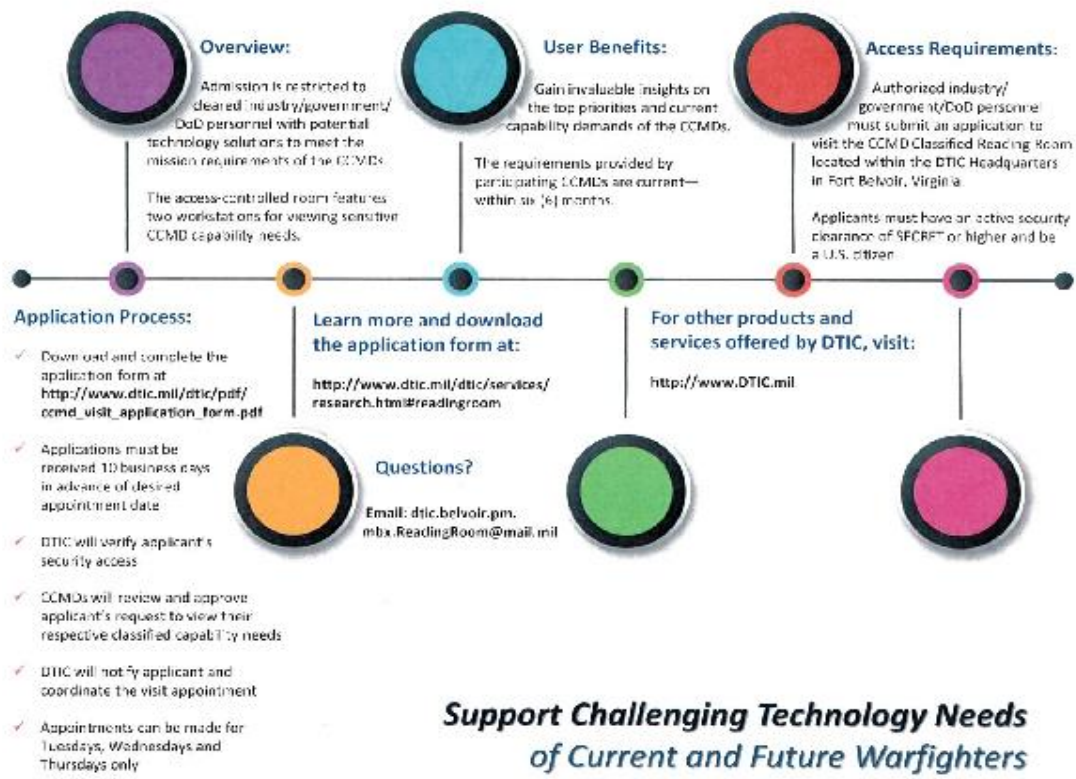
(not in priority order)

- A2AD solutions
- Detect / Defeat:
  - IED initiators / initiator systems
  - Buried / concealed IEDs
  - Production and assembly of IEDs
- HME production standoff detection
- Culvert access denial / alerting
- Persistence in surveillance
- Biometrics (Identity dominance for FP/access)
- Non-lethal vehicle / vessel stop
- Reduce stress on the force:
  - Force Protection requirements
  - Increased automation
- Anti-swarm lethal / non-lethal
- Enable Partner Support
- Predictive analysis techniques
- Tunnel detection / defeat
- Holding all targets at risk
- Messaging / counter-Messaging
- Mine Warfare (offensive/defensive)
- IAMD overmatch solutions
- C4ISR systems:
  - Processing, exploitation & dissemination
  - Multi-level security
  - Cross domain solutions
  - Information access to tactical edge via MIL Comms, Cellular & WiFi
- Tagging, Tracking, and Locating (TTL)
- Denying non-state actors state-like functions
- Energy & Power efficiencies
- Scalable non-lethal / lethal effects
  - Directed Energy
  - Kinetics
- True SA for Blue ... Fused Red
- Sustaining the force – reduced size, weight, amount, and retrograde
- Any sensor any shooter
- Cyber Warfare Defense
- Detect, track, defeat UAS (Grp 1&2)



# COMBATANT COMMAND (CCMD) CLASSIFIED READING ROOM

*A complimentary and one-of-a-kind, access-controlled room  
Exclusively located within the U.S. Department of Defense's Defense Technical Information Center Headquarters*



**Support Challenging Technology Needs  
of Current and Future Warfighters**



**DEFENSE TECHNICAL INFORMATION CENTER**  
8725 John J. Kingman Road, Fort Belvoir, VA 22060  
1-800-CAL-DTIC (1-800-225-3842)  
<http://www.DTIC.mil>





# DTIC Classified Reading Room Access

- Request access via email to:

***dtic.belvoir.pm.mbx.ReadingRoom@mail.mil***

## With the following info:


- Full name (First, Middle, Last)
- Company
- Subject matter of focus interest
- Requested visit date and am/pm preference
- Full signature in pen (not digital or electronic)

[DTIC prepares form at right and sends to requestor]

- Requestors must:

- Be US Citizens
- Possess a Secret or higher active security clearance
- Make request at least ten (10) days prior to desired visit date – walk-ins will not be approved
- Visit DTIC HQ FT Belvoir, VA to access the info

- DTIC verifies clearance & notifies COCOM
- COCOM reviews and certifies need-to-know



**COMBATANT COMMAND CLASSIFIED READING ROOM  
VISIT APPLICATION**

Visit applications for the Combatant Command Classified Reading Room can be mailed, emailed or faxed to the Defense Technical Information Center (DTIC). Applications must be received a minimum of 10 business days in advance of your desired appointment date. Contact DTIC at 703.767.8274 or visit [www.DTIC.mil](http://www.DTIC.mil) for more information.  
Email: [dtic.belvoir.pm.mbx.readingroom@mail.mil](mailto:dtic.belvoir.pm.mbx.readingroom@mail.mil) Fax: 703.767.8228

Mail To: Defense Technical Information Center – ATTN: DTIC-UR, 8725 John J. Kingman Road, Fort Belvoir, VA 22060

**VISITOR INFORMATION:**

Name *(printed)* Last                      First                      Middle

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Business/Organization Name

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Number and Street or Route and Box Number      City                      State                      Zip

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Email address    Contact Phone    Ext

Desired Appointment Date                      Time:  0900-1200       1300-1600  
(Tues, Wed, Thurs Only)                      (MM/DD/YYYY)

**SUBJECT MATTER FOCUS OF INTEREST**

**VISITOR'S SECURITY OFFICER INFORMATION**

Name *(printed)* Last                      First                      Middle

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Email    Contact Phone    Ext

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Security Management Office (SMO) Code

I certify that the information given is true and does not contain misleading statements.

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Visitor's Signature    Date (MM/DD/YYYY)

Print Form
Clear Form

DTIC - Apr 2016



# *How you can help - Propose a solution*

**Tell me:**

- **What are you trying to do?**
  - Articulate your objectives using absolutely no jargon
- **Who should care?**
- **How is it accomplished today?**
- **What are the limits of the current practice?**
- **What is new in your approach?**
- **Why do you think you will be successful?**
  - How do you define / measure success?
  - What is your strategy to get there?
- **How long will it take and at what cost?**
- **What are the risks?**
- **What is your risk reduction / mitigation strategy?**
- **What are the payoffs / return on investment?**

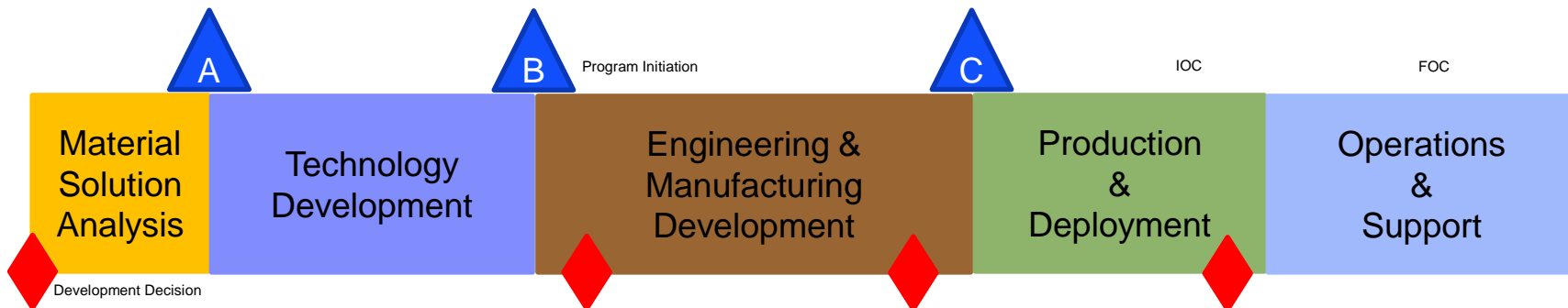


## *For Technology Developers ... Some Points to Consider*

- **Seek to understand how your solution fits in the overall DoD system of systems**
  - Integrate with legacy systems vice replace them
  - Open architectures receive higher interest / support
- **Consider partnering with others to bring a ‘greater’ solution to the table - system best-of-breed vice at the component level**
- **Determine impact to Service programs of record (PORs)**
  - Training
  - Initial fielding
  - Sustainment
- **Substantiate your position with data**
  - Testing
  - Cost-benefit analysis



# *Simplified DoD Acquisition Process*

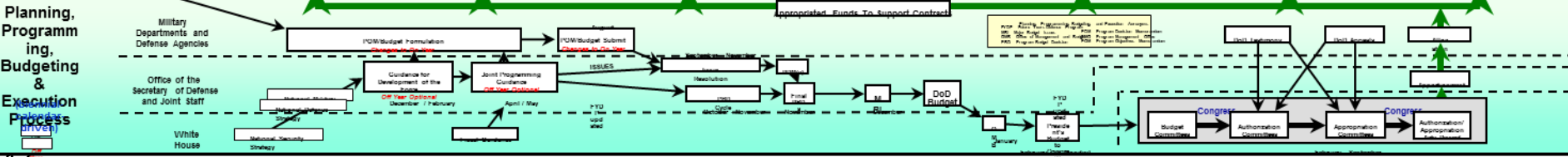
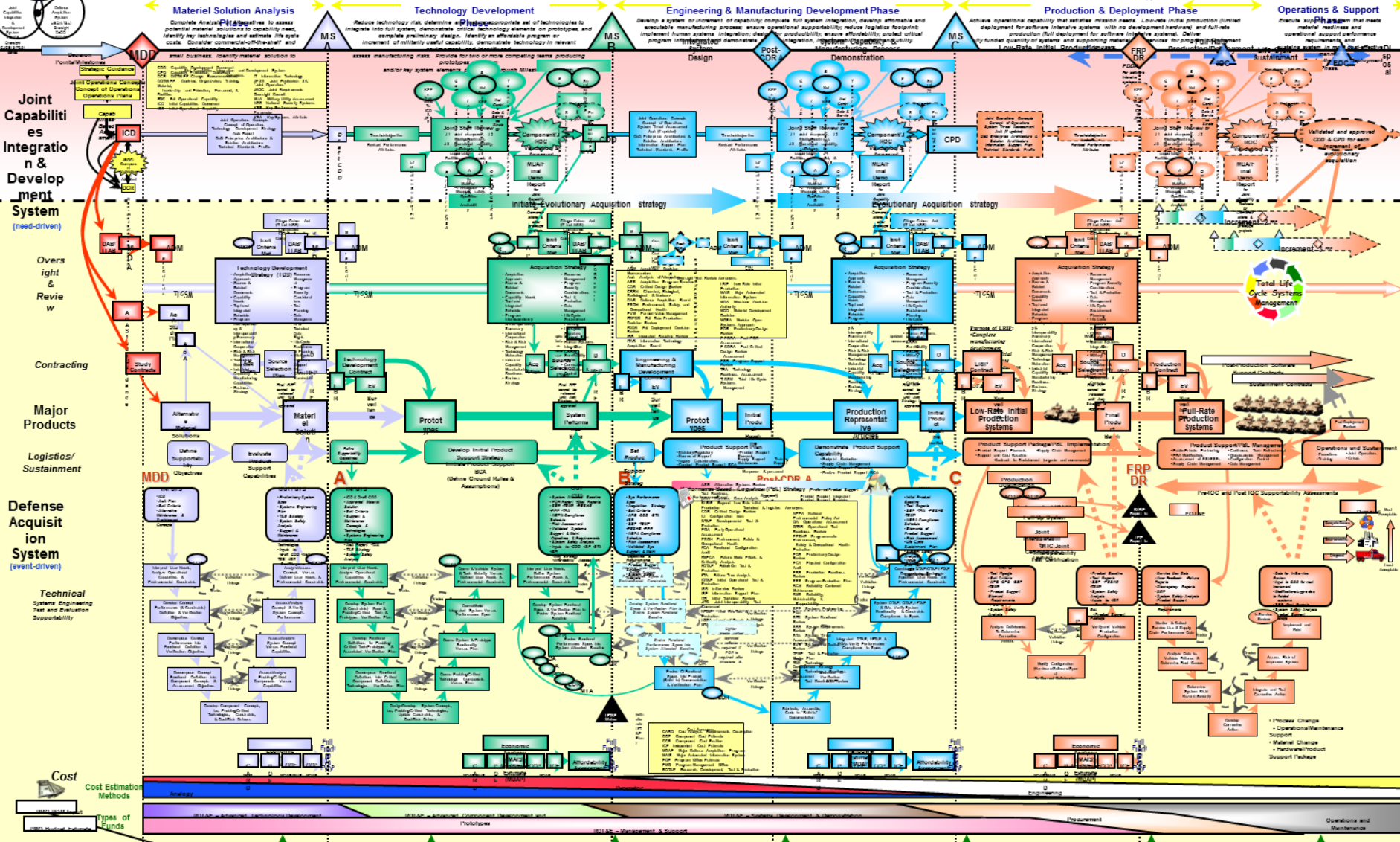




# Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management

Following the Material Development Decision, the Milestone Decision Authority may authorize entry into the acquisition process at any point, consistent with phase-specific entrance criteria and statutory requirements

The goal is to describe how to Deliver Available, Identify Needs, Evaluate, Analyze, Develop, Test, and Support systems from concept through acquisition process, from concept through development and testing, through production and operations. The goal is to describe how to Deliver Available, Identify Needs, Evaluate, Analyze, Develop, Test, and Support systems from concept through acquisition process, from concept through development and testing, through production and operations. The goal is to describe how to Deliver Available, Identify Needs, Evaluate, Analyze, Develop, Test, and Support systems from concept through acquisition process, from concept through development and testing, through production and operations.

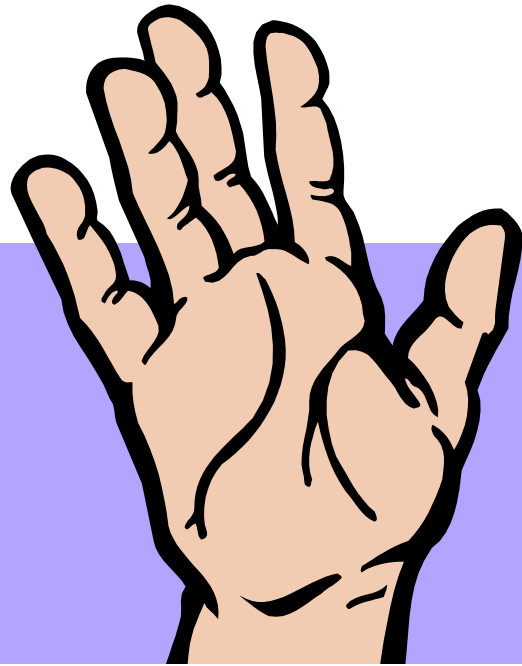




# Points of Contact

[ We've gone to DEE! ]

- |   |                     |   |
|---|---------------------|---|
| • <b>Marty Drake</b><br><b>Science Advisor</b>                      | <b>813-529-8055</b> | <b><a href="mailto:martin.a.drake.civ@mail.mil">martin.a.drake.civ@mail.mil</a></b>                   |
| • <b>Lt Col Milko Padilla, USAF</b><br><b>Deputy Division Chief</b> | <b>813-529-8057</b> | <b><a href="mailto:milko.r.padilla.mil@mail.mil">milko.r.padilla.mil@mail.mil</a></b>                 |
| • <b>Tom Smith</b><br><b>Technology Development</b>                 | <b>813-529-8107</b> | <b><a href="mailto:thomas.r.smith4.civ@mail.mil">thomas.r.smith4.civ@mail.mil</a></b>                 |
| • <b>Eric Follstad</b><br><b>Transformation &amp; Concepts</b>      | <b>813-529-8106</b> | <b><a href="mailto:eric.a.follstad.civ@mail.mil">eric.a.follstad.civ@mail.mil</a></b>                 |
| • <b>Dan Calderala</b><br><b>Experimentation</b>                    | <b>813-529-8105</b> | <b><a href="mailto:dan.g.calderala.civ@mail.mil">dan.g.calderala.civ@mail.mil</a></b>                 |
| • <b>Brett Scharringhausen</b><br><b>Discovery</b>                  | <b>813-529-8103</b> | <b><a href="mailto:brett.t.scharringhausen.civ@mail.mil">brett.t.scharringhausen.civ@mail.mil</a></b> |
| • <b>USMC Augmentee</b><br><b>Quick Reaction</b>                    | <b>813-529-8109</b> | <b>varies - call</b>  |



Raise your Hand

