




5.1 The Army's Human Dimension






The Army's Human Dimension

COL Steven Chandler
 Chief, Human Dimension TF
 Army Capabilities Integration Center
 TRADOC

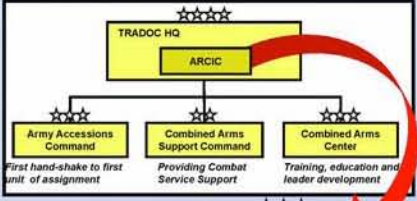


Army Strong
Cognitively, Physically & Socially

Army Capabilities Integration Center


The Army Capabilities Integration Center (ARCIC) designs, develops, integrates and synchronizes force capabilities for the Army across the DOTMLPF imperatives into a Joint, Interagency, and Multinational operational environment from concept through capability development.




TRADOC HQ
 ARCIC
 Army Accessions Command (First hand-shake to first unit of assignment)
 Combined Arms Support Command (Providing Combat Service Support)
 Combined Arms Center (Training, education and leader development)


LTG Michael Vane, Director
 ARCIC

- Concept Developments & Learning
- Assessments, Architecture & Mission Command
- Requirements Integration
- International Army Programs
- ARCIC Forward (DC)
- External Agencies
 - Air Land Sea Application (ALSA)
 - Reserve Component
 - JFCOM LNO
- Future Force Integration (Fort Bliss)
- Force Design (Fort Leavenworth)
- Service LNOs






HD Operational Problem Statement



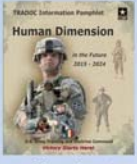
Research & Concept Development Communities

Study



Joint & Army Senior Leaders Congressional Staffers

Concept



General Audience


Handout

Given the requirement for Full Spectrum Operations in an Era of Persistent Conflict with the demands of the Army Force Generation cycle (Reset – Train/Ready – Available) and that Soldiers are the centerpiece of our formations, human capabilities are the key to winning our current and future wars ...

The Operational Problem: The Army must focus our Human Dimension efforts to ensure: *sustained quality* of the All-Volunteer Force, trained Soldiers, Civilians, Leaders and units prepared for Full Spectrum Operations (FSO), a resilient force Reset and Trained/Ready for *deployment and prepared for complex and demanding Joint, Interagency, Intergovernmental, and Multi-national (JIIM) environments* now and in the future.

Requires an adaptive institution

<http://www.tradoc.army.mil/tpubs/pamndx.htm> 3



The Human Dimension Concept

Previous Army concepts acknowledge the Soldier as the centerpiece of our formations, but none, individually or collectively, adequately addresses the human dimension capabilities for current or future operations.

Using available and emerging tools that ...

<u>Cognitive</u>	– optimize cognitive flexibility, mental intellect and information processing through enhanced screening, recurring assessment and tracking of individual’s potential and attributes; <i>dynamic, scalable, adaptive, immersive, sensory enabled, multi-layered tailored training</i> ; Adaptive material systems maximizing individual attributes.
<u>Physical</u>	– develop lifelong total fitness habits through comprehensive wellness programs that build aerobic/mental capacity, strength, endurance, agility, focused nutrition, stress and sleep deprivation management, behavioral health. Build resilience thru the Physical, Mental, Family, Social and Spiritual domains of strength.
<u>Social</u>	-- strengthen character and intercultural adaptability that reflects confidence in tough moral, culturally sensitive situations grounded in law, Warrior Ethos and Army Values; develop improved understanding of social / family dynamics, respect, interpersonal relationships, spirit and faith; strengthen team building, foster cohesion

The future domestic / global operating environment requires agile policies to support a comprehensive Human Dimension approach.

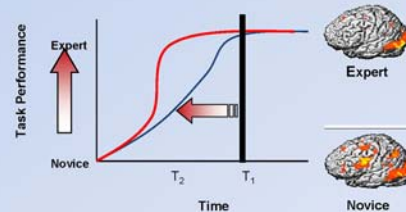
4



Cognitive Component Outcome



A recruited Future Force managed and retained based, in part, on continuous cognitive assessments (e.g. Attention, Learning, Leadership potential, Adaptability, Decision Making, Vision). Advanced technologies and tools assist in the selection of individuals for assignments and advanced accelerated / measurable training. Enhanced tailorable multi-layered training (to facilitate and accelerate task learning), leader development and Mission Command systems that adapt to cognitive styles to maximize readiness. Leaders provided PDA-like devices that access training and decision-making tools to track soldier readiness and assist matching talents/skills to mission requirements.



5

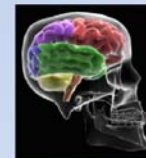


Cognitive Component



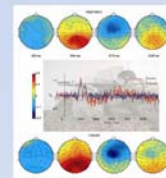
Facts:

- 100 bil neurons, .6 cft, uses 2w/hr vs. Super Computer @ 1600 sft, 5000w just for cooling
- Everyone "wired" differently – More synaptic connections than all known bodies in the universe i.e., billions
- 2% body mass, yet consumes 20% of the energy - alert or asleep
- 3 seasons of the brain – Maturing, Adult, Aging
- Spatial Navigation differences – Men and Women *ARE* different
- Cognitive Peaks differ individually for D-making



Possibilities:

- Predict leadership potential and decision-making capabilities
- Identify cognitive styles, special skills and attributes
- Cognitive gym -- Cognitive PT Test that builds capability & experience
- Cognitive UCFT – exercise full spectrum skills
- Accelerate learning -- tailored to individual potential and preferences
- Train the untrainable?



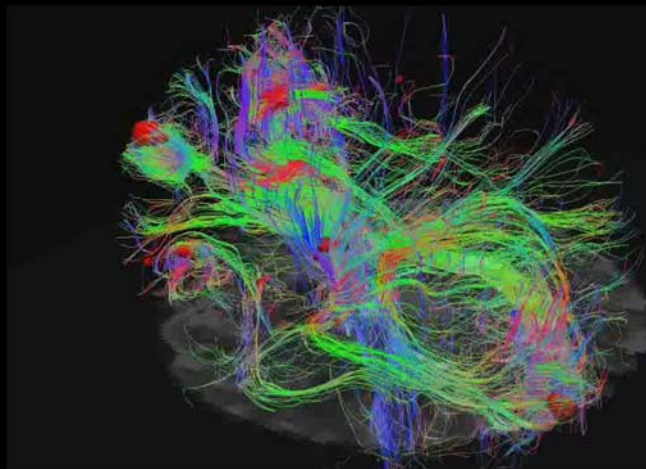
UCOFT - Unit Conduct Of Fire Trainer

Maximize a Soldier's inherent cognitive potential and learning.

6



Fiber Tracking



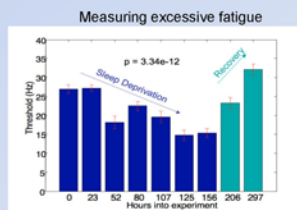
7



Physical Component Outcome

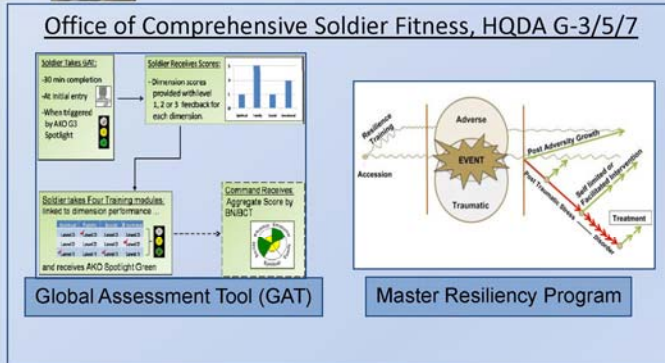


A Future Force that adheres to a continuum of holistic fitness tailored to the individual and subsequent mission requirements (measurable physiological, neurological, psychological, nutritional, and developmental fitness training). Programs that identify, mitigate, treat and rapidly restore soldiers who become holistically “unfit” due to combat operational and stress-related injuries. Retention of qualified physically disabled soldiers is the norm.



8

Physical Component



Finding strength to work thru adversity...



Finding humor in something that has gone wrong ...

Possibilities:

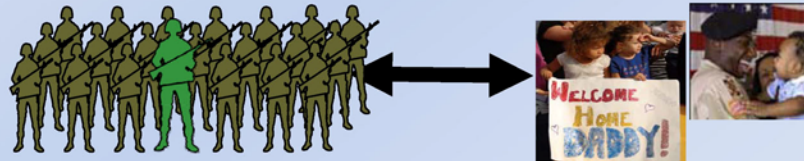
- Effective resilience building and stress mitigation
- Identify combat stress / PTSD vulnerability –
- Soldiers physically, mentally, emotionally, socially fit

Maximize a Soldier's inherent physical potential and holistic health.

Social Component Outcome



A Future Force that functions and behaves in accordance with: law; Army Values; and national/international expectations and standards. Grounded by a continuum of adaptable, scalable and measurable training programs that include operational challenges in tough ethical/moral situations. Leaders achieving intercultural adaptability, language skills and respect of the potential strategic impact how ethical behavior affects ones' self, the Army and Family values.



... Soldiers and leaders must feel confident ... to interact day-to-day with people of different cultural backgrounds and perspectives... GEN Casey



Social Component



The Character of Soldier



Possibilities:

- Identify aptitude for language, respect for cultural differences, openness; establishing trust
- Each Soldier, DA Civilian and Family member an integral component of a social network

11

Maximize a Soldier's inherent social potential as a culturally astute warrior and world citizen.

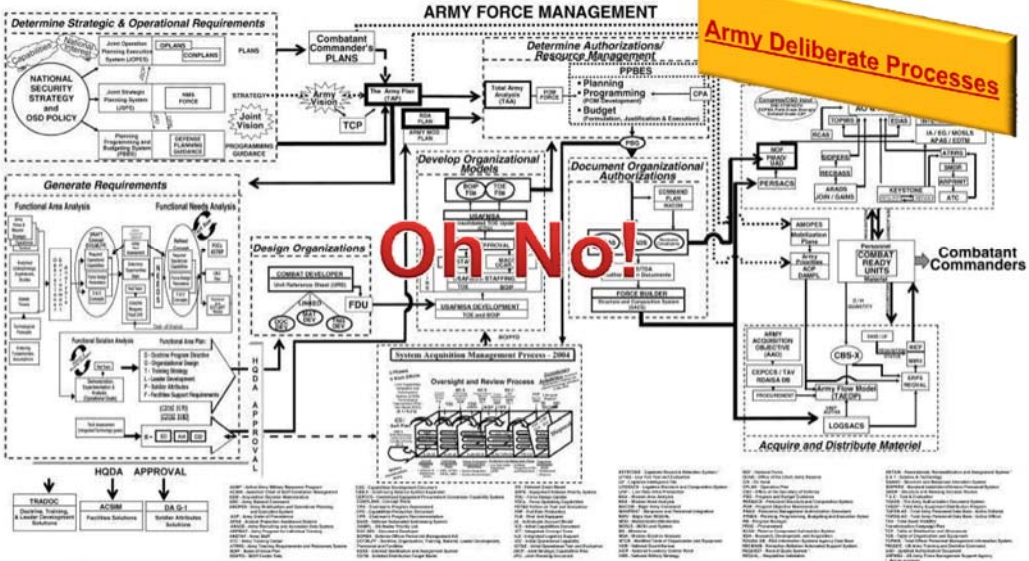


Where do we go from Here?



12

Typical Material Process



Not responsive to current fight or synchronized with ARFORGEN

Improved Cognitive Measurement Tools



Traditional Tools and Methods

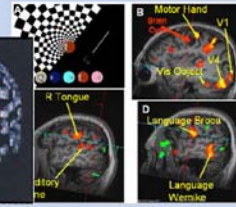
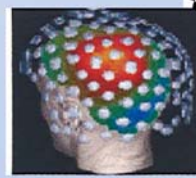
-- Psychological assessments



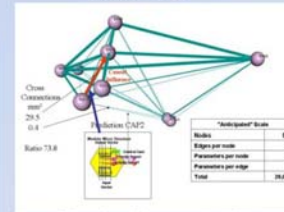
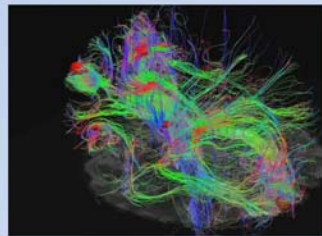
-- Physiological assessments



EMERGING Tools and Methods



EEG & fMRI Functional Mapping



Brain Connective Topology



HD impact on Training



- *Live, virtual, constructive and mixed venues*
- *Enable the Future Force to impart more skills, faster, at lower cost and with greater retention than currently achievable*
- *Use non-traditional home station training techniques and technology, train prior to employment*
- *Enhance and account for individual proficiencies and learning rates (outcome based)*
- *Leader development must be completely adaptable, scalable, multi-layered in complexity*



Guidelines we need to follow



1. The measurement and assessment of human performance is a centerpiece, *not an ancillary benefit*.
2. LVC training must contain immersive, decision-making stimuli with increasing variables that do not replicate what was done before. *Nor permit unintended bad habits*.
3. Tactical, moral, ethical decision-making must be stressed *and pervasive in all training*. Such contexts lead to individual and small unit self-confidence. It should also have open-ended objectives and challenge the task-condition standard construct.
4. HD brings a NEW way of accessing, selecting, training, developing and transitioning Soldiers requiring evidence-based, measurable results that can be correlated to return on investment.



Summary



We are about

- ✓ *Empowering Soldiers / units to dominate the Land Domain*
- ✓ *Improving, optimizing and restoring cognitive, physical, and social abilities*
- ✓ *Enabling Soldiers to function efficiently as an integral component of a network and society*



17



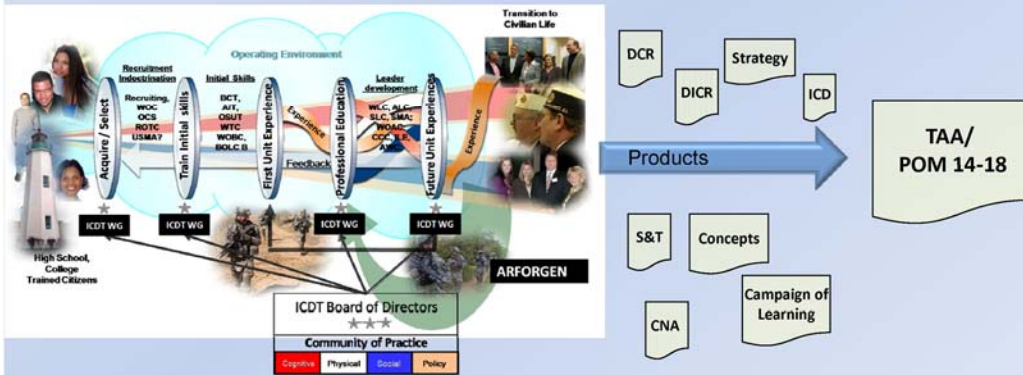
Back up

18

Taking the Capability Approach



Outcome: An Army poised to achieve its maximum cognitive, physical, and social potential for Soldiers, Civilians, and Families by optimizing their abilities, experience, education and fitness.



Integrated Capability Development Team (ICDT)

DCR – DOTMLPF-P Change Request; DICR - DOTMLPF-P Integrated Change Request; ICD – Initial Capabilities Document; CNA – Capability Needs Analysis

19

HD Quad Chart



HD ICD Outcomes nested with The Army Capstone Concept:

Operational Adaptability

- Quality Army Leaders and forces
- Applied critical thinking
- Comfort w/ ambiguity & decentralization
- Accepting prudent risks
- Continuous assessments & rapid adjustments
- Educated Leaders culturally astute
- Proficient & Cohesive Teams
- Resilient Soldiers successfully enduring psychological & moral challenges

CPS



Context:

HD reaches across Army forces, warfighting functions and various Force Modernization proponents.

No organization or process to develop holistic resourced-informed; outcomes-based; integration-focused HD CPS capabilities.

AR 5-22, The Army Force Modernization Proponent System does not designate a Force Modernization Proponent for HD.

Many disparate organizations are developing HD-related capabilities in parallel and stove-piped manner challenging the effort to collect gains made

No HD Center of Excellence (CoE) or Capabilities Development and Integration Directorate (CDID).

Assertions:

Transformational endeavor requiring propensity to integrate CPS attributes across the Army

Continued investment in R&D of CPS measures is required to determine and predict Soldier potential, performance and resiliency

Policy changes are required for acquisition, selection, development, retention, career management and transition

Recommendation:

Establish HD as a Program of Record

Establish a HD management structure having Force Modernization propensity for HD resourced with the TCM and CDID

Charter a Senior Advisory Group to facilitate the effective and efficient enabling of research, development and experimentation

Redefine Soldier readiness in CPS terms

Add squad/small unit readiness as a pacing item

Utilize the Human Capital Enterprise (HCE) to support HD equities

Soldier Lifecycle Model

