

BRAC 2005
Technical Joint Cross-Service Group (TJCSG)
Meeting Minutes of December 18, 2003

Dr. Ron Segal, Director, Defense Research and Engineering chaired this meeting. The list of attendees is attached.

Dr. Segal opened the meeting by thanking the TJCSG subgroups for developing briefings on their approach to military value analysis. He then asked Al Shaffer to brief the group on the TJCSG's roadmap for coming up with a consolidated approach to military value analysis.

Using the attached slide, Mr. Shaffer outlined the roadmap for the TJCSG subgroups to complete their military value analysis approach. The TJCSG agreed with the dates outlined in the roadmap slide. During the discussion the TJCSG principals agreed the various subgroups need to agree upon who will be the designated lead for the group and ensure that the groups' members adequately represent the R&D, Acquisition and T&E communities. The CIT agreed to work with the groups to meet the request.

The TJCSG then briefly discussed the military value attributes and metrics that are either common across many of the TJCSG subgroups or unique to one subgroup (see attached slides). Members of the TJCSG cautioned that various metrics will likely apply differently to each subgroup.

Mr. Shaffer then turned the meeting over to each of the TJCSG subgroups to brief the TJCSG principals.

The Air, Land, Sea, and Space subgroup briefed the TJCSG on their refined attributes and metrics using the attached slides. The TJCSG principals accepted the approach of the subgroup. The briefing generated significant discussion among the principals, Mr. Peter Potochney from the BRAC office and the TJCSG CIT about how JCSGs should approach military value. As a result, the TJCSG came to a common understanding of the process as highlighted below:

- The scoring plan for how to evaluate the military value of JCSG functions must be completed and approved by the ISG prior to the data call being released.
- It is acceptable for the same attribute to have different weights for R&D, Acquisition and T&E functions.
- Having too many attributes can dilute the value of the most important attributes.
- Facilities and functions can be broken down to smaller groups to ensure that the military value of like facilities and functions are compared vice improperly comparing facilities and functions with disparate functions or value. (e.g. comparing avionics labs to avionics labs)
- The various subgroups should continue to share their attributes and metrics to cross-fertilize.
- The CIT will develop common formats for future military value briefings.
- Each group should continue to develop output attributes and metrics.

Next, the Innovative Systems subgroup briefed the TJCSG principals using the attached slides. The group briefed their proposed attributes and metrics and discussed the difficulties inherent with trying to develop attributes for innovative organizations. While discussing the briefing, the TJCSG agreed that the principals' experience, knowledge, military judgment, as well as various studies can factor into military value analysis as a natural part of the deliberative process. The data gathered is the component of the process that must be certified. For example, studies of innovative organizations in the private sector can be used by the Innovative Technology subgroup to help them develop appropriate attributes, metrics, and questions. It is the answers to the questions that must be certified. The TJCSG agreed with the overall approach of the subgroup and understood the group's difficulty with developing metrics.

The C4ISR subgroup then briefed the TJCSG on their revised attributes and metrics using the attached slides. The group discussed how it is designing attributes and metrics that will enable them to assess the extent to which the facilities are supporting future C4ISR requirements. The TJCSG agreed with the basic approach of the subgroup, but wanted the CIT to clearly delineate the role of the C4ISR subgroup and the Intelligence JCSG. The CIT took action to draft a charter/MOA with the Intelligence JCSG on this issue. The TJCSG also wanted the roles of the various organizations examining information technology to be better defined. The C4ISR Subgroup took an action to draft a charter/MOA with the HQ & Support Activities JCSG on the Information Technology Subgroup.

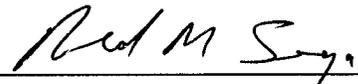
The Weapons and Armaments subgroup briefed next using the attached slides. The subgroup discussed the significant progress the group had made in refining its attributes and metrics since the last off-site. The group discussed the difficulties associated with trying to develop a set of integrated attributes and metrics for facilities and functions that vary across DoD. The CIT stated that one of its primary roles will be to integrate the various metrics and measures across the subgroups to ensure continuity. As did other groups, the Weapons and Armaments subgroup admitted it was struggling somewhat with the most effective way to measure intellectual capital. The group concluded its discussion by stating that its next steps are eliminating some questions and refining how to weight its metrics and questions. The TJCSG agreed with the subgroup's observations and overall approach.

The Enabling Technology subgroup was the last group to brief the TJCSG. The group used the attached slides to discuss its attributes and metrics. The group emphasized developing attributes and metrics that capture the ability to meet technology needs of the force of the future (2020 and beyond). The subgroup noted that it added the new metric "resources" and is working to use more quantitative metrics for its proposed operational responsiveness attribute. During the subgroup's discussion of the attribute "location," the TJCSG briefly debated the importance of location for specialized equipment. Implementation of prior BRAC recommendations demonstrated that some specialized equipment that was thought could only function effectively in a specific location actually worked in other locations after it was moved. For example, sensitive measurement devices previously installed at locations atop bedrock worked just as well at other locations after vibration dampening modifications were made to the equipment. The TJCSG also agreed that location specific analyses is part of scenario development not part of the development of military value data call questions. The TJCSG agreed with the Enabling subgroups approach.

The TJCSG next received a briefing from the future warfighting concepts team (see attached slide). The team is developing a common picture of future mission and capability requirements to help the TJCSG subgroups focus their attributes and metrics on those areas that will be most important to the future national security mission. The TJCSG agreed that the future look is important for military value and for scenario development. The TJCSG principals agreed to each nominate two members to participate in the future warfighting concepts team.

The TJCSG next briefly discussed the agenda for the January 2004 off site. The TJCSG agreed to the schedule presented in the attached slide and agreed to receive a consolidated brief of all the findings both at the off-site and at future January meeting back at the Pentagon.

Signed:  _____
Mr. Al Shaffer
Chairman, Capabilities Integration Team

Approved:  _____
Dr. Ronald Sega
Chairman, Technical Joint Cross-Service Group

Attachments:

1. List of Attendees
2. Technical JCSG Agenda
3. Briefing slide entitled "Roadmap" undated
4. Briefing slides entitled "Common and Unique Attributes (Draft)" undated
5. Briefing slides entitled "The Military Value of Innovative Systems to the Warfighter" dated December 18, 2003
6. Briefing slides entitled "The Military Value of C4ISR to the Warfighter" dated December 18, 2003
7. Briefing slides entitled "The Military Value of Weapons and Armaments to the Warfighter" dated December 18, 2003
8. Briefing slides entitled "Enabling Technology TJCSG Subgroup" dated December 18, 2003
9. Briefing slide entitled "Future Warfighting Concepts Team" dated December 18, 2003
10. Briefing slide entitled "7-9 Jan 2004 Offsite" undated

**Technical JCSG Meeting
18 December 2003**

Dr. Ron Segal, Chairman, OSD
Dr. J. Dan Stewart, Sr. Member, Air Force
Dr. John Foulkes, Army
Mr. John Erb, Sr. Member, JCS-J4

Dr. John Hopps, DDR&E
Mr. Al Shaffer DDR&E
Mr. Roger Florence, DOD IG
Mr. Gerald Schiefer, OSD-BRAC
Mr. Pete Potochney, OSD BRAC
Mr. Andy Porth, OSD-BRAC
COL Robert Buckstad, DDR&E
Dr. Jim Short, DDR&E
Mr. Harshad Shah, DDR&E
Mr. Gary Strack, DDR&E
Dr. Bob Rohde, ARMY
Mr. Chien Huo, ARMY TABS
BG Fed Castle, USAF
Mr. Don DeYoung, NAVY
COL Walt Hamm, USMC
Mr. George Ryan, US Navy
COL Steve Evans, USMC
Mr. James Polzin, USMC (SYSCOM)
Mr. Al Goldstayn, Air Force
Mr. Dave Jerome, DOT&E
Dr. Charles Holland, DDR&E
Mr. Roy Owens, Army (ALION)
Mr. Robert Arnold, USAF
COL Eileen Walling, Air Force
Mr. Matt Miezvia, Air Force
Mr. Larry Shuette, US Navy
Dr. Karen Higgins, US Navy
Mr. Mark Shiffer, US Navy
Mr. Mike Crisp, OSD
Mr. Tom Carroll, US Navy
Mr. Bob Leheny, DARPA

Agenda

- **1:30 – 1:40 Military Value Status and Roadmap – Mr. Al Shaffer**
- **1:40 – 1:50 Common and High Level Attributes/Metrics**
- **1:50 – 2:40 Subgroup Military Value Updates – Subgroup Spokespersons (10 min each)**
- **2:40 – 2:45 Future Warfighting Capabilities Working Group Charter – BG Fred Castle**
- **2:45 – 2:50 Jan 04 Offsite Overview – BG Fred Castle**
- **2:50 – 3:00 Action Item Review/Closing Comments – Mr. Al Shaffer**

Roadmap

- 17 Nov – Mil Value kick off
- 2-3 Dec – Subgroup Off-Site -> draft attributes and metrics
- 5 Dec – TJCSG, approved methodology
- 16 Dec – CIT, draft common attributes and metrics
- 18 Dec – TJCSG
- 22 Dec – CIT(+), final draft common attributes and metrics
- 5 Jan – Analytic Team, Draft weighting schema available
- 5 Jan – CIT(+), Refined Draft Common and Unique Attributes and metrics
- 5 Jan – TJCSG Chair, Receive draft Mil Value briefing and report guidelines from OSD BRAC
- 6-9 Jan – All, Off-Site, produce attributes, metrics, questions, with weights
- 8 Jan – TJCSG, Off-Site, in progress review
- 13 Jan - CIT, 1st draft briefing and report
- 13-16 Jan – All, Review report and provide comments
- 21 Jan – TJCSG, final review and comment
- 26 Jan – TJCSG Chair, approve report and briefing

Common and Unique Attributes (Draft)

Examples

Common

- People – Intellectual Capital
- Output- Products
- Facilities and Equipment
- Multi-Service/Agency
- Location

Unique

- Recognition - Credentials
- Experience in innovation
- Culture
- Unique Facilities
- Jointness

Common Metrics

- People: Patents, papers, national awards, proven ability to attract, hire and retain.
- Facilities and Equipment: Physical condition
- Multi-Service Agency: All “Outside” Funding
Internal (Own Service) Funding
- Location: Unique geographical requirement MET
e.g. Sea Level, Underwater, etc.
Ability to simulate operational environment.
Geographic synergy with mission related entity.
- Output Products: Demonstrated (war time) rapid response capability
Products acquired , sustained, or supported.

The Military Value of Innovative Systems to the Warfighter

Status Update to TJCSG
December 18, 2003

Draft Deliberative Document—For Discussion Purposes Only—Do not
Release Under FOIA

1

Technical Mission Statement

Innovative Systems Group will measure a “facilities” ability to incorporate new ideas, methods, or devices that substantially improve performance or capabilities over pre-existing systems or other approaches to achieving that function.

Draft Deliberative Document—For Discussion Purposes Only—Do not
Release Under FOIA

2

Status/Issues

- Working Group developing questions which address future adaptability/flexibility.
- Attributes of Innovative Organizations well known to Industry (and TJCSG).
 - Challenge is still certifiable - auditable questions that provide a Quotient.

Map of Attributes to MV Criteria

| Attributes & Associated Metrics | Mil Value Criteria | | | |
|---|--------------------|-------------------|-------------------|---------------|
| | Mission Rqts | Land & Facilities | Future Force Rqts | Cost/Manpower |
| <u>Attribute #1 Demonstrated Delivery of Innovative Systems</u> | | | | |
| • Metric 1: Innovative technologies developed for future use | XX | | XX | |
| • Metric 2: Innovative technologies developed and delivered | XX | | XX | |
| • Metric 3: Prototyping efforts for service or joint | XX | | | |
| <u>Attribute #2: Recognition</u> | | | | |
| • Metric 1: Customer Satisfaction | XX | | | |
| • Metric 2: Customer Acceptance | XX | | | |

Map of Attributes to MV Criteria

| Attributes & Associated Metrics | Mil Value Criteria | | | |
|---|--------------------|-------------------|-------------------|---------------|
| | Mission Rqts | Land & Facilities | Future Force Rqts | Cost/Manpower |
| <u>Attribute #3: Experience to Innovate</u> <ul style="list-style-type: none"> • Metric: Workforce Experience • Metric: Workforce Inventiveness | XX | | | |
| | XX | | | |
| <u>Attribute #4 Organizational Commitment to Innovativeness</u> <ul style="list-style-type: none"> • Metric 1: Maintaining an Innovative Workforce • Metric 2: Encouraging an Innovative Workforce | XX | | | |
| | XX | | XX | |

Map of Attributes to MV Criteria

| Attributes & Associated Metrics | Mil Value Criteria | | | |
|---|--------------------|-------------------|-------------------|---------------|
| | Mission Rqts | Land & Facilities | Future Force Rqts | Cost/Manpower |
| <u>Attribute #5: Facilities for Innovative Development</u> <ul style="list-style-type: none"> • Metric 1: Physical Plant • Metric 2: Modeling and Simulation | | XX | | |
| | | XX | | |
| <u>Attribute #6: Organizational Flexibility & Adaptability</u> <ul style="list-style-type: none"> • Metric 1: Synergy • Metric 2: Proximity to COE | XX | XX | XX | |
| | XX | | XX | |
| <u>Attribute #7: Key Personnel</u> <ul style="list-style-type: none"> • Metric 1: Geographic Flexibility | | | | XX |

Attribute: Demonstrated Delivery of Innovative System Designs

Metric: Innovative Advanced Technologies identified for future use

- Q1: Number of, and total value of ACTDs conducted or participated in for the last 5 years.
 - Certify via DDR&E Master List, organizations funding data

Metric: Number and description of “faster, cheaper, and better performance” examples of service and joint hardware delivered

- Q1: Number of, and list of innovative systems that were used in OFI/OEF
 - Team Tango? Certify by CO
- Q2: Number of, and list of innovative designs that transitioned to own service, joint, or commercial use in the last 5 years.
 - Certify by CO, by TTA, by License

Next Steps

- Looking to recast our metrics to the new Attributes.
- Casting the net for certifiable data.
- Defining Innovative Systems and Innovative Designs for the data call.
- Adding, modifying, culling questions prior to Offsite.

The Military Value of C4ISR to the Warfighter

Status Update to TJCSG
December 18, 2003 (V1)

Draft Deliberative Document—For Discussion Purposes Only—Do not
Release Under FOIA

1

Technical Mission Statement

Provide, sustain, and enable the C4ISR assets required for network centric operations/warfare where every platform is a producer and/or consumer of information and where interoperability of data is essential. C4ISR encompasses air, land, sea and space (including cyberspace) assets required to meet current and future mission requirements of the Joint forces at the most economical life cycle cost. Overarching C4ISR objective is to get the right information to the right user at the right time.

Draft Deliberative Document—For Discussion Purposes Only—Do not
Release Under FOIA

2

Status/Issues

Attributes developed

Most metrics developed

- JCS document differentiation suspect
- Alternate Source Availability difficult to measure, but desirable

Scoring/Weights drafted

Map of Attributes to MV Criteria

| Attributes & Associated Metrics | Mil Value Criteria | | | |
|--------------------------------------|--------------------|-------------------|-------------------|---------------|
| | Mission Rqts | Land & Facilities | Future Force Rqts | Cost/Manpower |
| <u>Scope of Work</u> | X | | | |
| Joint Acquisition Percentage | | | | |
| Technical Capabilities Breadth | | | | |
| Life Cycle Breadth | | | | |
| C4ISR Workload Percentage | | | | |
| <u>Mission Impact/Output</u> | X | | | |
| <u>Facilities/Equipment</u> | | X | X | |
| <u>Workforce</u> | | | X | X |
| <u>Alternate Source Availability</u> | | | | X |

Sample Attribute/Metrics Scope of Work Attribute

- **Joint Acquisition**
 - Joint defined as multi service/agency funds, executive agency designation, program/project with “Joint” in the title, programs/projects with a multi-service/agency MOU/MOA, joint staffing, or programs/projects with multi-service/agency customers
 - Reference for programs/projects is OSD/Service Program Master List (D&A) or projects with R2s (S&T)
- **Technical Capabilities**
 - For S&T, includes comm, C2, sensors, electronics, and intel capabilities and systems
 - For D&A, includes C2, comm, computers, ISR (sensor systems) and ISR (Processing systems)
 - Measure people, programs/projects, and funding

Draft Deliberative Document—For Discussion Purposes Only—Do not
Release Under FOIA

5

Next Steps

- **Work with CIT+ on common Attributes/Metrics (e.g., Facilities/Equipment and Personnel)**
- **Finalize C4ISR Metrics**
- **Develop and Finalize Questions from Metrics**
- **Finalize Scoring and Weights**

Draft Deliberative Document—For Discussion Purposes Only—Do not
Release Under FOIA

6

The Military Value of Weapons & Armaments to the Warfighter

Status Update to TJCSG
December 18, 2003

Technical Mission Statement

Provide and sustain weapons and armaments
to meet mission requirements of joint
forces.

Major Progress Since 5 Dec Status

- Mission and Attributes remain consistent but refined; outputs and inputs
- Modified/ combined/ simplified metrics
 - Propose 5 year look; need consistency among groups
- Further Developed Questions
 - Need consistency on demographics
- Roughly Defined Potential Data Sources
- Identified Remaining Issues

Issues Remaining

ISSUE: Data categories should enable comparison of sites & better understanding of life cycle contributions [W&A Products vs S&T DTAP; Reliance for T&E]

RECOMMEND: Use “W&A Products”; map to DTAP & Reliance; drawback is S&T work is non-product specific

ISSUE: Need for clarification of Weighting

RECOMMEND: Weight each attribute; assign metrics weights as sub-element for each attribute.

ISSUE: Availability of “Auditable” Data Sources

RECOMMEND: Assume once source will be “certified” data by selected site “certifiers” where required

ISSUE: Consideration of Contractor Services Support

RECOMMEND: Consistency with other Subgroups

ISSUE: Comparison of efficiency and portability

RECOMMEND: Normalize for different business constructs; consistency with other Subgroups

Map of Attributes to MV Criteria

| Attributes & Associated Metrics | Military Value Criteria | | | |
|--|-------------------------|---|---|---|
| | 1 | 2 | 3 | 4 |
| <u>1. Products: Output</u> | | | | |
| • Products Sustained/ Supported | X | | X | |
| • Ability to Supt Future Products [Input?] | X | | X | |
| • Rapid Response Capability | * | | X | |
| <u>2. Intellectual Capital: Input</u> | | | | |
| • Tech Expertise Breadth & Depth | X | | X | * |
| • Ability to Attract/ Retain/ Hire | X | | * | * |
| • Flexibility/ Innovativeness | X | | X | * |
| <u>3. Facilities & Equipment: Input</u> | | | | |
| • Flexibility | X | * | X | |
| • Operational Realism | X | * | | |
| • Future Growth Potential | X | * | X | * |
| • Uniqueness/ Criticality | X | * | | |
| • Physical State | * | X | | |

Note: * indicates partial/minor coverage by metrics in other criteria; duplicate metrics not used

Map of Attributes to MV Criteria

| Attributes & Associated Metrics | Mil Value Criteria | | | |
|-------------------------------------|--------------------|---|---|---|
| | 1 | 2 | 3 | 4 |
| <u>4. Ranges: Input</u> | | | | |
| •Flexibility | X | * | X | |
| •Operational Realism | X | * | | |
| •Future Growth Potential | X | * | X | * |
| •Uniqueness/ Criticality | X | * | | |
| •Physical State | * | X | | |
| <u>5. Efficiency: Output</u> | | | | |
| • Operating Cost | | | | X |
| • Rates | | | | X |
| <u>6. Portability: Input</u> | | | | |
| • Facilities & Equipment | | | | X |
| • Intellectual Capital | | | | X |

Note: * indicates partial/minor coverage by metrics in other criteria; duplicate metrics not used

Sample Attribute/ Metric/ Questions

CRITERIA 1: CURRENT AND FUTURE MISSION REQUIREMENTS

ATTRIBUTE 2: Intellectual Capital

Metric 2-2: Ability to Attract/ Retain/ Hire

Question 2-2.1: Provide the average attrition rate [other than incentivized retirements, BRAC or RIF related, or other external requirement for movement of people] for on-board, in-house technical professionals [S&Es, technicians, technical specialists, ...] over the past 5 years.

Question 2-2.2: Provide the number of entry level and journey level in-house technical professionals [S&Es, technicians, technical specialists, ...] who were hired over the past 5 years. Give also the percentage of hirals over the total number in the technical professional workforce.

Question 2-2.3: Provide the number of University/ Industry/ In-house degree programs that are accessible in technical fields related to the weapons categories. Indicate whether these are on-site or geographically accessible within 50 mile commuting distance, off-site where TDY is required or electronic [internet/ VTC].

Sources of Data and Auditability:

MDCPDS

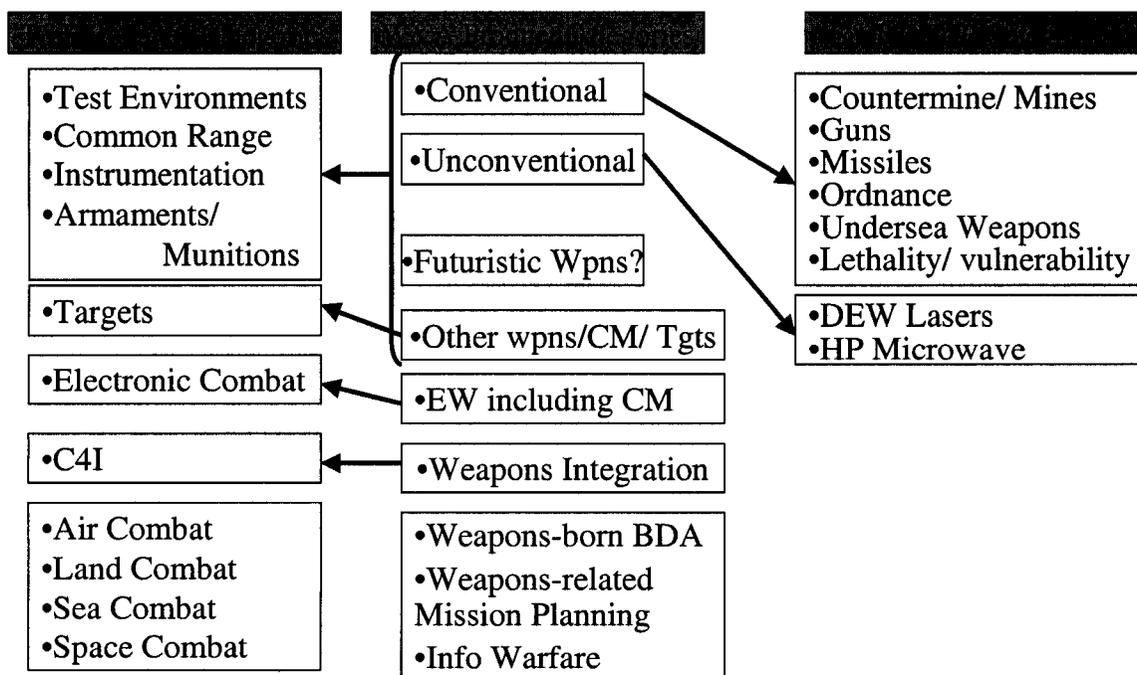
Site Personnel Records. Site Certified.

Next Steps

- Review/ Revise questions to reflect philosophy
- Further pursue commonalities with other subgroups
- Refine Data Sources
- Develop weighting scheme

BACKUP

Map to W&A Categories



Weapons and Armaments

Product Categories

- Conventional Lethal & non-lethal, kinetic & non-kinetic, including Cruise Missiles
- Unconventional [DEW, Nuclear, counter CB]
- Futuristic Weapons??
- Other weapons/ weapons CM/ targets
- Weapons Integration
- Weapons-born BDA
- Weapons-related Mission Planning
- EW including Countermeasures
- Information Warfare including psy-ops

Criteria 1: Current and Future Mission Requirements

Subgroup: W&A

- Attribute 1: Output Products by W&A Category
 - Metric 1-1: Products Sustained/ Supported
 - 1-1.1: Number/ Type of Systems Fielded
 - 1-1.2: Table of Organization & Eqd density
 - 1-1.3: Systems or Technologies supported by life cycle phase and by W&A product category.
 - 1-1.4: Number of missions supported Test, Experiment, and Training
 - Metric 1-2: Ability to Support Future Products
 - 1-2.1: Technology products supported / disruptive technology

Criteria 1: Current and Future Mission Requirements

Subgroup: W&A [cont]

- Attribute 2: Intellectual Capital
 - Metric 2-1: Technical Expertise
 - 2-1.1: Number/percentage of in-house technical professionals by W&A category
 - 2-1.2: Number/percent in-house tech professionals by S&T/ D&A/ T&E
 - 2-1.3: Years of government service for in-house technical professionals
 - 2-1.4: Number & type of external professional connects; products.
 - 2-1.5: Number of in-house technical professionals by degree
 - 2-1.6: Age of in-house technical professionals
 - 2-1.7 [CONSIDERING]: Number of on-site contractors supporting S&T
 - Metric 2-2: Ability to Attract/ Retain/ Hire
 - 2-2.1: Average voluntary attrition rate for in-house tech professionals
 - 2-2.2: Number/percent of new hire entry/journey level tech professionals
 - 2-2.3: Number of University/ Industry/ in-houses degree programs accessible in related fields.
 - 2-2.4: [CONSIDERING] Available workforce w/in commuting distance
 - Metric 2-3: Flexibility/ Innovativeness
 - 2-3.1: Cumulative and per capita inventions, patents and publications
 - 2-3.2: Significant individual or organizational awards

Criteria 1: Current and Future Mission Requirements

Subgroup: W&A [cont]

- Attribute 3: Facilities and Equipment
 - Metric 3-1: Flexibility
 - 3-1.1: Customers and funding reflecting Cradle-to-Grave life cycle categories and delineating ability to support multiple life cycle categories
 - 3-1.2: Customers and funding for each W&A category and delineating ability to support multiple W&A categories
 - 3-1.3: Facilities & Eqt capable of supporting more than one operational environment; integrate simulated and real environments; have modular configurations
 - 3-1.4: Facilities & Eqt capable of interconnecting to other labs/ facilities/ equipment or ranges [internal and external to the installation]
 - Metric 3-2: Operational Realism
 - 3-2.1: Ability to replicate operational environment [simulated or real]
 - Metric 3-3: Future Growth Potential
 - 3-3.1: List new Construction projects/ MILCONs completed, ongoing or planned
 - Metric 3-4: Unique/ Critical Facilities and Equipment
 - 3-4.1: Name, age, replacement value of facility/eqt
 - 3-4.2: Describe Unique function/capability including joint, industry, international customers and unique geographical/climatalogical features
 - 3-4.3: Number of times and hours of use by joint, industry & int'l customers

Criteria 1: Current and Future Mission Requirements

Subgroup: W&A [cont]

- Attribute 4: Ranges
 - Metric 4-1 Flexibility
 - 4-1.1: Customers and funding reflecting Cradle-to-Grave life cycle categories and delineating ability to support multiple life cycle categories
 - 4-1.2: Customers and funding for each W&A category and delineating ability to support multiple W&A categories
 - 4-1.3: Ranges able to support more than one operational environment; integrate simulated and real environments; have modular configurations
 - 4-1.4: Ranges capable of interconnecting to other labs/ facilities/ equipment or ranges [internal and external to the installation]
 - Metric 4-2: Operational Realism
 - 4-2.1: Ability to replicate operational environment [simulated or real]
 - Metric 4-3: Future Growth Potential
 - 4-3.1: List new Construction projects/ MILCONs completed, ongoing or planned
 - Metric 3-4: Unique/ Critical Ranges
 - 4-4.1: Name, age, replacement value of facility/eqt
 - 4-4.2: Describe Unique function/capability including joint, industry, international customers and unique geographical/climatological features
 - 4-4.3: Number of times and hours of use by joint, industry & int'l customers

Criteria 2: Availability & Condition of Land/ Facilities/ Airspace; Subgroup: W&A

- Attribute 3: Facilities and Equipment
 - Metric 3-5: Physical State
 - 3-5.1: Encroachment and environmental/ compliance issues
 - 3-5.2: Security Levels Available
 - 3-5.3: Age/ Economy of Use/ State of the Art
- Attribute 4: Ranges
 - Metric 4-5: Physical State
 - 4-5.1: Encroachment and environmental/ compliance issues
 - 4-5.2: Security Levels Available
 - 4-5.3: Age/ Economy of Use/ State of the Art

Criteria 3: Contingency, Mobilization and Future Total Force Requirements; Subgroup: W&A

- Attribute 1: Output Products W&A Category
 - Metric 1-1: Products Sustained/ Supported
 - 1-1.5: Number and names of Joint Programs Supported
 - Metric 1-2: Ability to Support Future Products
 - 1-2.2: Programs/ products/ technologies successfully transitioned
 - Metric 1-3: Rapid Response Capability
 - 1-3.1: Examples of systems/ technologies supporting urgent wartime requirements, including response time and customer.
 - 1-3.2: Contingency funding received for services/ systems for wartime urgent needs
- Attribute 2: Intellectual Capital
 - Metric 2-1: Technical Expertise
 - 2-1.x: Technical professional workyears supporting joint or other agency programs/ initiatives by W&A category
 - Metric 2-3: Flexibility/ Innovativeness
 - 2-3.3: New start programs [6.3+]

Criteria 3: Contingency, Mobilization and Future Total Force Reqts; Subgroup: W&A

- Attribute 3: Facilities and Equipment
 - Metric 3-1: Flexibility
 - 3-1.5: Quick reaction task: staffing; % usage; throughput
 - Metric 3-3: Future Growth Potential
 - 3-3.2: Surge Capacity [Max & min % use relative to 2 shifts, 350 days/yr]
 - 3-3.3: [POTENTIAL] Ability to expand Utility usage
 - 3-3.4: [POTENTIAL] Number of buildable acres
- Attribute 4: Ranges
 - Metric 4-1: Flexibility
 - 4-1.5: Quick reaction task: staffing; % usage; throughput
 - Metric 4-3: Future Growth Potential
 - 4-3.2: Surge Capacity [Max & min % use relative to 2 shifts, 350 days/yr]
 - 4-3.3: [POTENTIAL] Ability to expand Utility usage
 - 4-3.4: [POTENTIAL] Number of buildable acres

Criteria 4: Cost and Manpower Implications

Subgroup: W&A

- Attribute 5: Efficiency
 - Metric 5-1: Operating Cost
 - 5-1.1: Ratio of manyears contributing to direct products in weapons categories to manyears of indirect support + direct product support
 - Metric 5-2: Rates
 - 5-2.1 Loaded rate per man year of S&E work supplied to customers outside the org

- Attribute 6: Portability
 - Metric 6-1: Facilities and Equipment
 - 6-1.1: Estimated lab/facility and equipment replacement value
 - 6-1.2: Feasibility in terms of portability
 - 6-1.3: Impact on current mission and efficiencies/synergy
 - Metric 2-2: Intellectual Capital
 - 6-2.1: Impact from Attrition rate and years of experience

Enabling Technology TJCSG Subgroup

Military Value Question Development Status Report

Dr. William Berry, OSD Chairman

Dr. Joseph Lawrence, Navy

Dr. William Bolger, Air Force

Dr. Rick Morrison, Army

Technical Mission: The enabling technology WG addresses the fundamental technology base that encompasses the cross functional nature of S&T needed to support the force of the future. The enabling technology WG will evaluate horizontally across the breadth of the fundamental underpinning technologies and associated facilities to support the known & unknown needs of the services in 2020 or later. Vertical evaluation will be supported only for select functions not covered elsewhere (i.e. Chem Bio, Power and Energy, materials, ...).

18 December 2003

Draft Deliberative Document - for Discussion
Purposes Only - Do Not Release Under FOIA

1

DoD Interim Selection Criteria & Attributes

1. The current and future mission requirements and the impact on operational readiness of the DOD's total force, including impacts on joint warfighting, technical capabilities, training, and readiness.

Attributes: Mission, Workforce, Location

2. The availability and condition of land, facilities and associated airspace, including science and technology (S&T)/acquisition/test and evaluation infrastructure, and training areas and staging areas for the use of the Armed Forces in homeland defense missions, at both existing and potential receiving locations.

Attributes: Location

3. The ability to accommodate contingency, mobilization, and future total force requirement at both existing and potential receiving locations to support operations, training, science and technology (S&T)/acquisition/test and evaluation missions.

Attributes: Mission, Operational Responsiveness, Location

4. The cost and Manpower implications, including the impact on intellectual capital.

Attributes: Workforce, Location

18 December 2003

Draft Deliberative Document - for Discussion
Purposes Only - Do Not Release Under FOIA

2

Major Changes

- Principle change was the addition of a new metric under the Mission Attribute
 - Metrics now: Alignment, Capability, **Resources**, Jointness
- Some additional work performed to quantify metrics/questions for the Operational Responsiveness attribute.
- Jointness as a metric may no longer apply to all Attributes as we continue to develop specific metrics. Now focused in Mission and Workforce Attributes.

Attribute: Mission

Metrics

- **Alignment** and **Capability** metrics will produce data for analysis to identify facility 'Uniqueness' and 'Flexibility'.
 - Uniqueness - Number of DTAP sub-categories site has current funding in
 - Flexibility – Ratio of total number DTAP sub-categories site has experience in during last 3 years.
- **Resources** metric will develop data about overall site funding sources and uses.
- **Jointness** will develop data to assess the inter-service relationships and utilization of site specific facilities/personnel.

Attribute: Workforce

Metrics

- **Credentials** questions focus on the caliber of personnel at a site.
- **Renewal** questions focus on hiring/retention and development of personnel.
- **Outreach/Connectivity** develops data on how an organization is interfacing with the world outside of it.
- **Accomplishments** develops data on documented products and collaborations.
- **Jointness** develops data on cross service personnel are either assigned to or on detail from the site.

Attribute: Operational Responsiveness

Metrics – still challenging!!!

- **Warfighter Support** develops data on technology development directly to the warfighter.
- **Acquisition Support** develops data on technology transition to acquisition programs.
- **Output** develops data associated with documented MOU/MOA/TTA transitions.
- **Jointness** metric incorporated with Mission and Workforce attributes.

Attribute: Location

Metrics

- **Geographical/Climatological** develops information specific to a site and unique characteristics that enable the capability
- **Licenses & Permits** identifies specific legalities related to specific facilities
- **Environmental Constraints** identifies specific environmental issues related to a site
- **Special Support Infrastructure** identifies unique infrastructure requirements
- **Proximity to Mission Related Organizations** identifies organizational relationships with operating units to enhance development of technology
- **Jointness** metric incorporated with Mission and Workforce Attributes

Status

- ✓ Draft set of question developed and compared to question by other subgroups. Many similarities
- Development of Criteria, Attribute, Metric and Question weighting planned for Boston offsite.
 - Goal - at the end of the offsite ET will be able to identify the questions and weighting for each of the criteria previously identified.

Questions???

FUTURE WARFIGHTING CONCEPTS TEAM

- Establishes common sight picture for MV & Scenario analysis
 - Technical-based initiatives
 - Future mission and capability requirements
- Composition
 - Reps from OSD, Joint Staff, Army, Air Force, Navy, Marine Corps
 - Nominated by TJCSG principals
 - Appointed by Chairperson TJCSG
- Operations
 - Conducted in accordance with SOP for TJCSG
 - CIT oversight
 - Ad hoc committee, to be disestablished upon product completion

7-9 Jan 2004 Offsite

Hyatt Harborside

Boston, MA

- **6 Jan**
 - Reception (1900 – 2100)
- **7 Jan (All except TJCSG Principals)**
 - 0830 – 1700
 - Breakfast (0630 – 0830)
 - Lunch (1200 – 1300)
 - Dinner (1800 – 1900)
- **8 Jan (Everyone)**
 - 0800 – 1600 (TJCSG Principals start at 1000)
 - Breakfast (0630 – 0800)
 - Lunch (1200 – 1300)
 - Dinner (1800 – 1900)
- **9 Jan (CIT Extended + Subgroup Leads)**
 - 0800 – 1700
 - Breakfast (0630 – 0800)
 - Lunch (1200 – 1300)