**PERSONNEL AND
READINESS**

DEC 1 3 2021

The Honorable Jack Reed
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Department's report in response to House Report 116-453, pages 339-340, accompanying H.R. 7617, the Department of Defense Appropriations Bill, 2021, on the development of a cost analysis plan for conducting uniform traumatic brain injury baseline testing for all new recruits across each Military Service is enclosed.

The report provides the requested cost analysis plan for implementing baseline testing for all new military recruits using the Automated Neuropsychological Assessment Metrics tool and recommends implementing baseline testing at initial entry training locations. The cost for implementing baseline testing at initial entry training locations over a 5-year period is projected to cost approximately $11.16M.

Thank you for your continued strong support for the health and well-being of our Service members, veterans, and families. I am sending similar letters to the other congressional defense committees.

Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable James M. Inhofe
Ranking Member

**PERSONNEL AND
READINESS**

DEC 1 3 2021

The Honorable Jon Tester
Chairman
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

The Department's report in response to House Report 116-453, pages 339-340, accompanying H.R. 7617, the Department of Defense Appropriations Bill, 2021, on the development of a cost analysis plan for conducting uniform traumatic brain injury baseline testing for all new recruits across each Military Service is enclosed.

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Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable Richard C. Shelby
Vice Chairman

**PERSONNEL AND
READINESS**

DEC 1 3 2021

The Honorable Adam Smith
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

The Department's report in response to House Report 116-453, pages 339-340, accompanying H.R. 7617, the Department of Defense Appropriations Bill, 2021, on the development of a cost analysis plan for conducting uniform traumatic brain injury baseline testing for all new recruits across each Military Service is enclosed.

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Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable Mike D. Rogers
Ranking Member

PERSONNEL AND
READINESS

DEC 1 3 2021

The Honorable Betty McCollum
Chair
Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Madam Chair:

The Department's report in response to House Report 116-453, pages 339-340, accompanying H.R. 7617, the Department of Defense Appropriations Bill, 2021, on the development of a cost analysis plan for conducting uniform traumatic brain injury baseline testing for all new recruits across each Military Service is enclosed.

The report provides the requested cost analysis plan for implementing baseline testing for all new military recruits using the Automated Neuropsychological Assessment Metrics tool and recommends implementing baseline testing at initial entry training locations. The cost for implementing baseline testing at initial entry training locations over a 5-year period is projected to cost approximately $11.16M.

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Sincerely,

Gilbert R. Cisneros, Jr.

Enclosure:
As stated

cc:
The Honorable Ken Calvert
Ranking Member

House Report 116-453, Pages 339-340, Accompanying H.R. 7617, the Department of Defense Appropriations Bill, 2021, "Traumatic Brain Injury"

December 2021

Introduction

This final report is in response to House Report 116-453, pages 339-340, accompanying H.R. 7617, the Department of Defense Appropriations Bill, 2021, on the development of a cost analysis plan (CAP) for conducting uniform traumatic brain injury (TBI) baseline testing for all new recruits across each Military Service. The House Report 116-453 requests that the CAP for conducting uniform TBI baseline testing provide for a screening program for any already-existing TBIs, which shall inform healthcare professionals should a Service member (SM) be subject to any circumstances in the future that might result in a TBI. Consistent with the strategy outlined in the interim report to Congress delivered on May 27, 2021, this final report provides a cost analysis for implementing baseline testing for all new military recruits using the Automated Neuropsychological Assessment Metrics (ANAM). The ANAM serves as the Department of Defense (DoD)-designated computerized assessment tool for conducting neurocognitive baseline assessments for all SMs prior to deployment and following a diagnosed concussion or mild TBI while deployed. The ANAM may also be administered for SMs returning from deployment who respond affirmatively to TBI risk assessment questions during their Post Deployment Health Assessment and are referred for clinical evaluation.

Executive Summary

The Office of the Assistant Secretary of Defense for Health Affairs, in coordination with the Military Departments and the Defense Health Agency, led the development of this CAP and final report. Two distinct courses of action (CoA) for conducting uniform TBI baseline testing of all new military recruits using the ANAM were analyzed. The first CoA evaluated implementation of baseline testing at Military Entrance Processing Stations (MEPS), while the second evaluated implementation at initial entry training locations (i.e., enlisted basic training sites and officer candidate/training schools). The results of the cost analysis indicate that implementing a requirement for baseline testing of all new military recruits at initial entry training locations would cost approximately $11.16M over a five-year period, $10.73M less than the $21.89M estimated for implementing the same requirement at MEPS. Cost savings from economies of scale primarily account for this substantial difference, along with the potential to leverage existing ANAM testing capacity currently supporting operational force requirements at many of the 14 major locations used by the DoD for initial entry training. This is in direct contrast to the significantly greater number of MEPS, 67 total, only 26 percent of which are located on military installations, and none of which currently have designated, full-time ANAM testing staff assigned. Additionally, the cost estimate for conducting baseline ANAM testing at MEPS is significantly greater due to a larger number of applicants (approximately 25 percent more) being screened for entry into the military Services per year than those ultimately approved and electing to enter military service. In acknowledgment of the estimated $10.73M cost difference between the two COAs, the DoD supports implementation of baseline testing at initial entry training locations.

Neurocognitive testing: Automated Neuropsychological Assessment Metrics (ANAM) Background

The ANAM is a DoD-developed, computer-based tool that provides an objective assessment of cognition that can be compared to military norms or to the individual SM's baseline test results. The ANAM facilitates early evaluation and treatment for SMs whose follow-on ANAMs show variances from the baseline. For the baseline ANAM testing described in this report, test results would not be used for purposes such as determining fitness for military service or occupational specialty. Instead, test results would be used to establish a baseline that future test results could be compared against, leading to further evaluation or treatment, if indicated.

The ANAM has served as the DoD designated neurocognitive assessment tool since 2008. The U.S. Army serves as the Military Health System lead Service for the testing required by the DoD Neurocognitive Assessment Program, and through its Neurocognitive Assessment Branch provides and maintains ANAM computer hardware, software, and training in support of Service-led implementation.

Department of Defense Instruction (DoDI) 6490.13, "Comprehensive Policy on Traumatic Brain Injury-Related Neurocognitive Assessments by the Military Services," published September 11, 2015, mandates all SMs complete a neurocognitive assessment within twelve months of deployment and following a diagnosed concussion or mild TBI while deployed. Additionally, SMs who respond affirmatively to TBI risk assessment questions during their Post Deployment Health Assessment may complete a neurocognitive assessment if referred for clinical evaluation. Since 2008, the DoD has administered over 3 million ANAM tests, with compliance tracked through the Department's Force Health Protection Quality Assurance Program as outlined in DoDI 6200.05, "Force Health Protection Quality Assurance Program".

Cost Analysis Plan Methodology

Two distinct CoAs, with CAPs, were considered for baseline testing of all new military recruits. The first CoA evaluated implementation of baseline ANAM testing at the Department's 67 MEPS (Table 1). The mission of United States Military Entrance Processing Command (USMEPCOM), which exercises command and control of the MEPS, is to evaluate applicants by applying established DoD aptitude, medical, and moral standards during processing for military service. USMEPCOM's 67 MEPS are staffed by approximately 3400 personnel assigned to 2 geographically-aligned sectors within the United States. Of the 67 MEPS, 34 operate in commercially leased facilities, 18 are located on military installations, and 15 operate in Federal buildings.

Table 1: Military Entrance Processing Stations (MEPS)

Eastern Sector	Western Sector
Albany, NY	Albuquerque, NM
Atlanta, GA	Amarillo, TX
Baltimore, MD	Anchorage, AK

Beckley, WV	Boise, ID
Boston, MA	Butte, MT
Buffalo, NY	Dallas, TX
Charlotte, NC	Denver, CO
Chicago, IL	Des Moines, IA
Cleveland, OH	El Paso, TX
Columbus, OH	Fargo, ND
Detroit (Troy), MI	Honolulu, HI
Fort Dix, NJ	Houston, TX
Fort Jackson, SC	Kansas City, MO
Fort Lee, VA	Las Vegas, NV
Harrisburg, PA	Little Rock, AR
Indianapolis, IN	Los Angeles, CA
Jackson, MS	Minneapolis, MN
Jacksonville, FL	New Orleans, LA
Knoxville, TN	Oklahoma City, OK
Lansing, MI	Omaha, NE
Louisville, KY	Phoenix, AZ
Memphis, TN	Portland, OR
Miami, FL	Riverside, CA
Milwaukee, WI	Sacramento, CA
Montgomery, AL	Salt Lake City, UT
Nashville, TN	San Antonio, TX
Manhattan, NY	San Diego, CA
Pittsburgh, PA	San Jose, CA
Portland, ME	Seattle, WA
Raleigh, NC	Shreveport, LA
San Juan, Puerto Rico	Sioux Falls, SD
Springfield, MA	Spokane, WA
Syracuse, NY	St. Louis, MO
Tampa, FL	

The second CoA evaluated implementation of baseline ANAM testing at 14 major initial entry training locations used by the military Services for training their enlisted SMs as well as officers pursuing commissions through either the Reserve Officer Training Corps or direct commissioning programs (Table 2). Of note and with the exception of the U.S. Coast Guard Academy, this listing does not include cadets and midshipmen attending the U.S. Military Academy, the U.S. Naval Academy, or the U.S. Air Force Academy, who currently undergo ANAM testing following entry into their respective Military Service Academies.

Table 2: Military Service Initial Entry Training Locations

Army	Navy	Marine Corps	Air Force / Space Force	Coast Guard
Ft Benning, GA	Great Lakes RTC, IL	Quantico, VA	Lackland AFB, TX	Cape May, NJ
Ft Jackson, SC	NS Newport, RI	RTC San Diego, CA	Maxwell AFB, AL	New London, CT
Ft Knox, KY		RTC Parris Island, SC		
Ft Leonard Wood, MO				
Ft Sill, OK				

For all 14 initial entry training locations and 67 MEPS, personnel and equipment requirements (i.e., number of ANAM test proctors and testing stations/networks) were estimated for each location based upon the projected, yearly number of baseline ANAM tests that would need to be administered. These staffing and equipment estimates, in turn, were developed using the same planning criteria applied to determine optimal staffing and test equipment levels at installations currently supporting pre-deployment ANAM testing. Consistent with this approach, personnel and equipment expenses were calculated based upon an average of current test proctor salaries and testing station/network costs, with test proctor staffing requirements and associated costs determined using a combination of contractors and general schedule civilians.

Although not included in our cost analysis calculations, the implementation of baseline ANAM testing at many MEPS and initial entry training locations may also require up-front costs for renovating or acquiring additional space to accommodate an adequate number of ANAM testing stations. Given the greater number of MEPS (67) than initial entry training locations (14), these costs are anticipated to be higher for the MEPS CoA, as well as more difficult to accurately estimate given the majority of MEPS are located in either commercially leased facilities or Federal buildings.

Cost Analysis Plan Results

The estimated "year-one" cost for implementing baseline ANAM testing for approximately 291,000 applicants at the Department's 67 MEPS is $5.08M, with $4.2M needed to fund 53 full-time equivalent (FTE) test proctor positions and $885K needed for the upfront purchase of 668 additional ANAM testing stations and network infrastructure. For years two through five, the estimated annual cost is $4.2M, for a 5-year total cost estimate of $21.89M (Table 3). Finally, as outlined in the cost analysis plan methodology section, the higher overall cost for this CoA is also driven in part by the greater number of applicants processed at MEPS per year (approximately 66,000 more), than recruits who progress to initial entry training. As a result, a significant portion of overall funding would be expended on applicants who do not enter the military.

Table 3: Military Entrance Processing Stations (MEPS) Course of Action (CoA)

Summary of Enhancements

	FY #1	FY #2	FY #3	FY #4	FY #5	FYDP
Funding Required	$5,085,000	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$21,885,000
O&M	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$4,200,000	$21,000,000
Procurement	$885,000					$885,000
Manpower Required	53.0	53.0	53.0	53.0	53.0	53.0

The estimated "year-one" cost for implementing baseline ANAM testing for approximately 225,000 new military recruits at the Department's 14 initial entry training locations is $2.67M, with $2.12M needed to fund an additional 26.5 FTE test proctor positions and $556K needed for the upfront purchase of 445 additional ANAM testing stations and network infrastructure. For years two through five, the estimated annual cost is $2.12M, for a 5-year total cost estimate of $11.16M (Table 4).

Table 4: Military Service Initial Entry Training Locations Course of Action (CoA)

Summary of Enhancements

	FY #1	FY #2	FY #3	FY #4	FY#5	FYDP
Funding Required	$2,676,000	$2,120,000	$2,120,000	$2,120,000	$2,120,000	$11,156,000
O&M	$2,120,000	$2,120,000	$2,120,000	$2,120,000	$2,120,000	$10,600,000
Procurement	$556,000					$556,000
Manpower Required	26.5	26.5	26.5	26.5	26.5	26.5

The results of our cost analysis support baseline testing at initial entry training locations, as implementation of this CoA is projected to cost $10.73M less than implementing the same requirement at MEPS over an initial five-year period.

Warfighter Brain Health Initiative

Development of a cost analysis plan for conducting baseline ANAM testing of all new military recruits is aligned with the Department's broader Warfighter Brain Health (WBH) initiative, which is a coordinated DoD-wide approach to address warfighter brain health in a holistic manner. Central to this effort is the objective to establish a comprehensive cognitive surveillance monitoring program that optimizes brain health and counters TBI throughout a SM's career. This includes the ability to monitor a SM's cognition and determine the need to either enhance or restore it, especially if there has been a decrement in cognition through a hazardous brain exposure such as blast overpressure or other known or emerging brain threats. In this regard, the requirement to develop a CAP for testing all new military recruits supports the broader WBH initiative, enabling the establishment of a SM's cognitive baseline shortly after accession and prior to potential brain exposures during training or combat.

Cognitive surveillance monitoring supports both the warfighter's ability to make expedient, effective decisions on the battlefield, and the Department's pursuit of superior combat effectiveness.

Summary

This final report provides the requested CAP for conducting uniform TBI testing of all new recruits across each military Service, as requested by House Report 116-453, pages 339-340, accompanying H.R. 7617, the Defense, Commerce, Justice, Science, Energy and Water Development, Financial Services and General Government, Labor, Health and Human Services, Education, Transportation, Housing, and Urban Development Appropriations Act, 2021. Two CoAs for conducting baseline ANAM testing of all new military recruits were analyzed. The first CoA evaluated implementation at 67 MEPS while the second CoA evaluated implementation at 14 initial entry training locations. From a cost analysis perspective, conducting baseline ANAM testing at initial entry training locations over an initial 5-year period is estimated to cost $11.16M, which is $10.73M lower than the estimated $21.89M required to conduct baseline training at MEPS over the same timeframe. Additionally, expanding ANAM testing capacity at military installations, as opposed to MEPS, would better posture the Department to support testing of all SMs on a periodic, longitudinal-basis, as outlined in the Department's WBH initiative. In recognition of this advantage and the $10.73M cost difference between the two CoAs, the Department supports implementation of baseline testing at initial entry training locations.

Acronyms and Terms

Acronym	Term
ANAM	Automated Neuropsychological Assessment Metrics
CAP	Cost Analysis Plan
CoA	Course of Action
DoD	Department of Defense
DoDI	Department of Defense Instruction
FTE	Full-Time Equivalent
MEPS	Military Entrance Processing Station
SM	Service Member
TBI	Traumatic Brain Injury
USMEPCOM	United Sates Military Entrance Processing Command

References

(a) DoDI 6490.13, "Comprehensive Policy on Traumatic Brain Injury-Related Neurocognitive Assessments by the Military Services," September 11, 2015, as amended
(b) DoDI 6200.05, "Force Health Protection Quality Assurance (FHPQA) Program," June 16, 2016, as amended