

**UNCLASSIFIED**

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Office of the Secretary Of Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	130.524	20.994	13.132	17.917	-	17.917	23.146	20.644	19.254	19.139	Continuing	Continuing
199: <i>GIG Evaluation Facilities (GIG-EF) and GIG Enterprise-Wide Systems Engineering Advisory Activities</i>	130.524	20.994	13.132	17.917	-	17.917	23.146	20.644	19.254	19.139	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**Note**

New Start (Y/N): No

**A. Mission Description and Budget Item Justification**

This program supports the Department's initiatives to Deter Aggression, Defend the Homeland, and Build Sustainable and Long-Term Advantage.

The Net Centricity program provides technical analysis, systems engineering and capability oversight of programs, projects, initiatives and activities to maximize the Department's return on investment in information technology resources and affect a comprehensive approach for assessing and procuring critical information systems from initial design through capability development. Specific Command, Control, and Communications (C3) disciplines include: Tactical (Space, Aerial, Terrestrial, and Maritime) Communications, Applications, Services, Information Sharing, and Command, Control, Communications (C3) Infrastructure; Satellite Communications (SATCOM) including SATCOM terminals and gateways and associated Defense. Information Systems Network (DISN) infrastructure; commercial mobile devices, and Positioning, Navigation and Timing (PNT). DoD CIO provides strategic direction, policy guidance, and oversight that enables the Department to effectively research, define, prioritize, acquire, field, and sustain C3 capabilities in support of DoD operations and the warfighter.

These funds provide the capability for the warfighter to manage and deconflict radio frequencies through ground, air, and space communication networks. The funds will be used to develop and synchronize information assurance and mission assurance capabilities with other joint information environment capabilities to provide secure access to information and services (e.g. Cryptographic Modernization Management plan). Additionally, funding will continue to be utilized to support development of common standards and protocols across the DoD. This effort includes the Joint Interoperability Enhancement Process (IEP) that allows operators, engineers, and program managers to verify capabilities and identify issues in a design with Joint / Allied units prior to system fielding, or with fielded systems to identify required changes for systems upgrade planning.

These joint standards, protocols, and processes will be used for implementation and testing to ensure the TDL capabilities are synchronized with the development and integration timelines of other planned network-enabled DODIN initiatives. The DoD cannot assume the same robust, uninterrupted, tactical-to-strategic command and control network will remain intact against a peer-level adversary. Rather than existing across a single domain, these new network paths must leverage space, air, land, surface, sub-surface, and cyber to ensure redundancy against attack. To build confidence in our communication ability in a contested theater, the DoD must make

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Office of the Secretary Of Defense	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

targeted investments that increase communication resiliency. The Net Centricity program provides this resilient architecture and leverages multiple waveforms carried across space, air, land, surface, sub-surface and cyber to minimize periods that C2 will be degraded when communicating in a highly contested environment.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023 Base</b>	<b>FY 2023 OCO</b>	<b>FY 2023 Total</b>
Previous President's Budget	21.793	13.471	0.000	-	0.000
Current President's Budget	20.994	13.132	17.917	-	17.917
Total Adjustments	-0.799	-0.339	17.917	-	17.917
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-0.339			
• Congressional Rescissions	-0.004	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.795	-			
• Adjustments to Budget Year	-	-	17.917	-	17.917

**Change Summary Explanation**

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

The increase of +\$6.941 from FY 2022 to FY 2023 is due to additional modeling and simulation efforts to develop and test and spectrum measurement activities; validate and monitor the efficacy of the multiple systems Mode S IFF implementation; finalize Stage2/3 DoD/FAA/NTIA Model and predecessor metrics; Develop 5G technology standards contributions and support continued analysis in the area of Public Safety Communications (PSC) including NextGen 911, FirstNet and Land Mobile Radio (LMR).

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<b>Title:</b> Net Centricity Plans and Accomplishments	20.994	13.132	17.917
<b>FY 2022 Plans:</b>			
– Continue technical assessment/refine commercial wireless policy guidance to support CMD strategy implementation; continue assessments of the effects of cybersecurity policies.			
– Continue to refine CMD certification processes, Mobile Application Management (MAM)/Mobile Device Management (MDM) guidelines, and guidelines for personal user based enforcement; update approved product matrix for CMD.			
– Continue implementation assessments to refine mobile application and device strategies.			
– Review/refine mobile application approval process guides, DoD Mobile PKI guides, and procedure for the Electronic Flight Bag (EFB).			
– Development of an analytical model that facilitates access to the 1030/1090MHz spectrum.			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Office of the Secretary Of Defense	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Modernize DoD's spectrum dependent systems to a fully integrated information and decision support architecture for all-domain maneuver and fires superiority.</li> <li>- Develop a resilient, secure, and adaptive tactical IT infrastructure capable of operating within a contested, congested, and operationally limited within the electromagnetic Spectrum (EMS) environment, which will share EMS data across DoD at all classification levels.</li> <li>- Develop EMS statistical and associative modeling and simulation techniques.</li> <li>- Modernize spectrum data, data collection, databases, storage retrieval, and aggregation.</li> <li>- Develop AI-enabled spectrum data analytics.</li> <li>- Modernize Electromagnetic Battle Management, Situational Awareness and C2 integration.</li> <li>- Continue 5G experimentation for dynamic, bidirectional, cognitive spectrum sharing.</li> <li>- Continue technical and business case analyses for Commercial mobile devices and voice encryption.</li> <li>- Update the Radio and Communication Security modernization plan for tactical radios. Assess Service implementation.</li> <li>- Continue analysis to update the CJTF Architecture to reflect Component C4II capability plans.</li> <li>- Continue development of interoperable Land Mobile Radio (LMR) standards to support public safety communications.</li> <li>- Continue analysis to of LMR policy implementation; refine procedures to support LMR implementation in the DoD.</li> <li>- Continue analysis of Waveform Development and Management in the DoD.</li> <li>- Continue analysis to maintain authoritative list of DoD-approved waveforms and supporting repository to maintain waveform baseline.</li> <li>- Continue technical analysis on methods for securing ISR data over wireless platforms and extended encryption of these devices, conduct implementation assessments through UAS encryption data calls.</li> <li>- Continue technical analysis and support for Protected, Wideband, Narrowband, and Commercial SATCOM. Assess strategy alignment.</li> <li>- Update SATCOM Synchronization Architectures for Protected, Wideband, Narrowband and Commercial SATCOM capabilities.</li> <li>- Continue efforts to implement SATCOM Gateway Right-sizing approaches to optimize SATCOM gateways across the defense enterprise.</li> <li>- Continue technical/requirements analysis and feasibility assessments for implementing legacy narrowband solutions for MUOS payload.</li> <li>- Continue analysis to support implementation approaches for JIPM alternatives.</li> <li>- Conduct follow-on analysis in support of the Protected SATCOM AoA recommendations and preferred alternative.</li> <li>- Continue support for the WCS AOA and follow-on analysis.</li> <li>- Continue technical analysis to improve DoD utilization of Commercial SATCOM capabilities.</li> <li>- Conduct Airborne ISR (AISR) transport analysis of alternatives follow on analysis based on AoA recommendations and preferred alternatives.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Office of the Secretary Of Defense	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>– Continue technical analysis of Coalition C2 and MNIS, analyze Coalition C2 functional requirements, strategic policy development and capability strategies to guide Mission Partner Environment (MPE) development.</li> <li>– Continue technical analysis of selected joint and Service C2 programs/initiatives to promote enterprise approaches for data and services.</li> <li>– Continue technical analysis for the implementation of Common Mission Network Transport (CMNT) capability.</li> <li>– Continue technical analysis of MNIS programs and initiatives, related acquisition strategies, and functional requirements.</li> <li>– Continue analyses to address adoption and evolution of mission services as candidate enterprise services for the JIE.</li> <li>– Conduct follow-on analysis to inform implementation of the EoA recommendations for the GCCS Family of Systems.</li> <li>– Continue analysis of capability needs to enable command and control across the JIE. Evaluate Enterprise Operations Center architectures, and information requirements to support investment decisions in JIE C2 capabilities.</li> <li>– Continue analysis of requirements, capability gaps and integrated priority lists of all joint requirements for C3 capabilities to support DoD CIO engagement in the C4/Cyber Functional Capability Board.</li> <li>– Continue wireless architecture and advanced technologies analysis to inform Department-wide policies and implementation of mobility solutions.</li> <li>– Continue technical analysis to support compliance oversight of waveform policies and technical profile specifications.</li> <li>– Continue efforts to refine communications policies and analysis technologies applicable to commercial mobile devices.</li> <li>– Continue analysis to support DMUC derived credentials implementation.</li> <li>– Continue to develop Interoperable Secure Mobile Communications across FVEY.</li> <li>– Continue analysis of 5G technology for DoD tactical use.</li> <li>– Execute 5G standards engagement plan.</li> <li>– Continue to support Multi-National 5G Capability development across NATO.</li> <li>– Continue technical analysis for Network Management (NM) interoperability, architecture and data artifacts.</li> <li>– Continue systems engineering and architecture analysis for JIE tactical processing nodes (TPNs).</li> <li>– Continue analysis to address implementation of TSVSIC for tactical radios.</li> <li>– Continue efforts to determine strengths, weaknesses, and uses of waveforms and network management capabilities; identified gaps; assesse new technologies in support of waveform and network management efforts.</li> <li>– Continue technical analysis to support implementation of the network management strategy and roadmap.</li> <li>– Continue development of data techontologies and NIEM compliant IEPDs for network management.</li> <li>– Continue technical analysis in support of C3 policies, plans, studies, roadmaps, and capability assessments.</li> <li>– Continue end-to-end analysis of the SATCOM environment; support technical evaluations of end-to-end capabilities.</li> <li>– Continue studies and analysis in support of the DoD CIO’s Mobile Device Strategy and Mobile Device Security Efforts.</li> <li>– Continue Hub-Based HF Communications Concept to provide protected high rate communications needed for long range connectivity in satellite-denied environments</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Office of the Secretary Of Defense	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Continue Wideband SATCOM AoA user demand projections develop planning decks and scenario guidance with Joint Staff/J6 coordinated scenarios description paper and CAPE concurrence.</li> <li>- Continue to support secure voice interoperability and desires to drive planning for UHF anti-jam (SATURN) planning through NATO channels.</li> <li>- Continue technical analysis/studies related to the migration of current applications and services to DoD Core Data Centers and support rationalization of applications for the JIE.</li> <li>- Continue technical analysis to support implementation of JIE capability upgrades and technical planning.</li> <li>- Continue studies and analysis to progress of JIE technical implementation actions.</li> <li>- Continue technical analysis and studies related to SDN as an approach to network normalization and security.</li> <li>- Continue Joint IEP analysis for Link 16 and work on adding Variable Message Format (VMF), Link 11/22, Multifunction Advanced Data Link (MADL), and Common Data Link (CDL) through the FYDP.</li> <li>- Continue support for Allied and Coalition interoperability efforts including NATO migration plan, JSF partner interoperability, US/Swedish MIEA, and integration of US and foreign communications and C2 systems.</li> <li>- Assess developing waveform technologies for improving the robustness and scalability of current TDL networks.</li> <li>- Continue efforts to refine and implement gateway right sizing options; evaluate RF terminal solutions and baseband equipment suites including the number and types of equipment needed to meet the future needs of the war fighter. Coordinate and facilitate Teleport Program Office oversight initiatives.</li> <li>- Continue analysis to evolve SATCOM networks toward EOIP modem architecture. Continue support of video dissemination and two-way GBS capabilities to inform follow on implementation across the Department.</li> <li>- Continue analysis for the SATCOM International Standards Committee (SISC). Participate in the development of US lead Standardized Agreements (STANAGS) and provide a technical review of other nation's STANAG's for accuracy, completeness, and feasibility.</li> <li>- Continue efforts to evaluate and implement acquisition strategies for U.S. support to NATO SATCOM.</li> <li>- Continue technical analysis and facilitate execution of the SATCOM Systems Engineering Group (SSEG).</li> <li>- Continue efforts to maintain JIE Infrastructure Framework and synchronization roadmap to track infrastructure deployment or implementation.</li> <li>- Continue acquisition like review of JIE objectives, plans, technical approaches, schedules and cost factors to support technical reviews of JIE implementation.</li> <li>- Support the development of business case activities as required.</li> </ul> <p>Develop guidance (e.g., information system security engineering guidance) and programming recommendations to ensure the integration of Trusted Systems Networks concepts and processes into the acquisition and maintenance of DoD information systems, enclaves, and services, including the purchase and integration of tactical communication commodities.</p> <p><b><i>FY 2023 Plans:</i></b></p>			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Office of the Secretary Of Defense	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>Continue technical assessment/refine commercial wireless policy guidance to support CMD strategy implementation; continue assessments of the effects of cybersecurity policies.</p> <ul style="list-style-type: none"> <li>- Continue to refine CMD certification processes, Mobile Application Management (MAM)/Mobile Device Management (MDM) guidelines, and guidelines for personal user based enforcement; update approved product matrix for CMD.</li> <li>- Continue implementation assessments to refine mobile application and device strategies.</li> <li>- Review/refine mobile application approval process guides, DoD Mobile PKI guides, and procedure for the Electronic Flight Bag (EFB).</li> <li>- Development of an analytical model that facilitates rapid, safe, and operationally adequate access to the 1030/1090MHz spectrum.</li> <li>- Develop a resilient, secure, and adaptive tactical IT infrastructure capable of operating within a contested, congested, and operationally limited electromagnetic Spectrum (EMS) environment, capable of sharing EMS data across DoD at all classification levels.</li> <li>- Develop EMS statistical and associative modeling and simulation techniques.</li> <li>- Modernize DoD's spectrum dependent systems to a fully integrated information and decision support architecture for all-domain maneuver and fires superiority.               <ul style="list-style-type: none"> <li>- Modernize spectrum data, data collection, databases, storage retrieval, and aggregation.</li> <li>- Develop AI-enabled spectrum data analytics.</li> <li>- Modernize Electromagnetic Battle Management, Situational Awareness and C2 integration.</li> <li>- Continue 5G experimentation for dynamic, bidirectional, cognitive spectrum sharing.</li> </ul> </li> <li>- Continue technical and business case analyses for Commercial mobile devices and voice encryption.</li> <li>- Update the Radio and Communication Security modernization plan for tactical radios. Assess Service implementation.</li> <li>- Continue analysis to update the CJTF Architecture to reflect Component C4II capability plans.</li> <li>- Continue development of interoperable Land Mobile Radio (LMR) standards to support public safety communications.</li> <li>- Continue analysis to of LMR policy implementation; refine procedures to support LMR implementation in the DoD.</li> <li>- Continue analysis of Waveform Development and Management in the DoD.</li> <li>- Continue analysis to maintain authoritative list of DoD-approved waveforms and supporting repository to maintain waveform baseline.</li> <li>- Continue technical analysis on methods for securing ISR data over wireless platforms and extended encryption of these devices, conduct implementation assessments through UAS encryption data calls.</li> <li>- Continue technical analysis and support for Protected, Wideband, Narrowband, and Commercial SATCOM. Assess strategy alignment.</li> <li>- Update SATCOM Synchronization Architectures for Protected, Wideband, Narrowband and Commercial SATCOM capabilities.</li> <li>- Continue compliance reviews of select programs; identify shortfalls in program bandwidth supportability planning and analysis and provide recommendations for corrective action.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Office of the Secretary Of Defense	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Continue efforts to implement SATCOM Gateway Right-sizing approaches to optimize SATCOM gateways across the defense enterprise.</li> <li>- Continue technical/requirements analysis and feasibility assessments for implementing legacy narrowband solutions for MUOS payload.</li> <li>- Continue analysis to support implementation approaches for JIPM alternatives.</li> <li>- Conduct follow-on analysis in support of the Protected SATCOM AoA recommendations and preferred alternative.</li> <li>- Continue support for the WCS AOA and follow-on analysis.</li> <li>- Continue technical analysis to improve DoD utilization of Commercial SATCOM capabilities.</li> <li>- Conduct Airborne ISR (AISR) transport analysis of alternatives follow on analysis based on AoA recommendations and preferred alternatives. Update AISR transport reference and solution architecture artifacts to support implementation.</li> <li>- Continue technical analysis of Coalition C2 and MNIS, analyze Coalition C2 functional requirements, strategic policy development and capability strategies to guide Mission Partner Environment (MPE) development.</li> <li>- Continue technical analysis of selected joint and Service C2 programs/initiatives to promote enterprise approaches for data and services.</li> <li>- Continue technical analysis for the implementation of Common Mission Network Transport (CMNT) capability.</li> <li>- Continue technical analysis of MNIS programs and initiatives, related acquisition strategies, and functional requirements.</li> <li>- Continue analyses to address adoption and evolution of mission services as candidate enterprise services for the JIE.</li> <li>- Conduct follow-on analysis to inform implementation of the EoA recommendations for the GCCS Family of Systems.</li> <li>- Continue analysis of capability needs to enable command and control across the JIE. Evaluate Enterprise Operations Center architectures, and information requirements to support investment decisions in JIE C2 capabilities.</li> <li>- Continue analysis of requirements, capability gaps and integrated priority lists of all joint requirements for C3 capabilities to support DoD CIO engagement in the C4/Cyber Functional Capability Board.</li> <li>- Continue wireless architecture and advanced technologies analysis to inform Department-wide policies and implementation of mobility solutions.</li> <li>- Continue technical analysis to support compliance oversight of waveform policies and technical profile specifications.</li> <li>- Continue efforts to refine communications policies and analysis technologies applicable to commercial mobile devices.</li> <li>- Continue DoD Commercial Mobility implementation and systems engineering analysis Defense Mobile Unclassified and Classified Capabilities (DMUC/DMCC).</li> <li>- Continue analysis to support DMUC derived credentials implementation.</li> <li>- Continue analysis of 5G technology for DoD tactical use.</li> <li>- Develop 5G standards engagement plan.</li> <li>- Continue technical analysis for Network Management (NM) interoperability, architecture and data artifacts.</li> <li>- Continue systems engineering and architecture analysis for JIE tactical processing nodes (TPNs).</li> <li>- Continue analysis to address implementation of TSVSIC for tactical radios.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Office of the Secretary Of Defense	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<ul style="list-style-type: none"> <li>- Continue efforts to determine strengths, weaknesses, and uses of waveforms and network management capabilities; identified gaps; assesse new technologies in support of waveform and network management efforts.</li> <li>- Continue technical analysis to support implementation of the network management strategy and roadmap.</li> <li>- Continue development of data ontologies and NIEM compliant IEPDs for network management.</li> <li>- Continue technical analysis in support of C3 policies, plans, studies, roadmaps, and capability assessments.</li> <li>- Continue end-to-end analysis of the SATCOM environment; support technical evaluations of end-to-end capabilities.</li> <li>- Continue studies and analysis in support of the DoD CIO's Mobile Device Strategy and Mobile Device Security Efforts.</li> <li>- Continue Hub-Based HF Communications Concept to provide protected high rate communications needed for long range connectivity in satellite-denied environments</li> <li>- Continue Wideband SATCOM AoA user demand projections develop planning decks and scenario guidance with Joint Staff/J6 coordinated scenarios description paper and CAPE concurrence.</li> <li>- Continue technical analysis/studies related to the migration of current applications and services to DoD Core Data Centers and support rationalization of applications for the JIE.</li> <li>- Continue technical analysis to support implementation of JIE capability upgrades and technical planning.</li> <li>- Continue studies and analysis to progress of JIE technical implementation actions.</li> <li>- Continue technical analysis and studies related to SDN as an approach to network normalization and security.</li> <li>- Continue Joint IEP analysis for Link 16 and work on adding Variable Message Format (VMF), through the FYDP.</li> <li>- Continue support for Allied and Coalition interoperability efforts including NATO migration plan, JSF partner interoperability, US/ Swedish MIEA, and integration of US and foreign communications and C2 systems.</li> <li>- Assess developing waveform technologies for improving the robustness and scalability of current TDL networks.</li> <li>- Continue efforts to refine and implement gateway right sizing options; evaluate RF terminal solutions and baseband equipment suites including the number and types of equipment needed to meet the future needs of the war fighter. Coordinate and facilitate Teleport Program Office oversight initiatives.</li> <li>- Continue analysis to evolve SATCOM networks toward EOIP modem architecture. Continue support of video dissemination and two-way GBS capabilities to inform follow on implementation across the Department.</li> <li>- Continue analysis for the SATCOM International Standards Committee (SISC). Participate in the development of US lead Standardized Agreements (STANAGS) and provide a technical review of other nation's STANAG's for accuracy, completeness, and feasibility.</li> <li>- Continue efforts to evaluate and implement acquisition strategies for U.S. support to NATO SATCOM.</li> <li>- Continue technical analysis and facilitate execution of the SATCOM Systems Engineering Group (SSEG).</li> <li>- Continue efforts to maintain JIE Infrastructure Framework and synchronization roadmap to track infrastructure deployment or implementation.</li> <li>- Continue acquisition like review of JIE objectives, plans, technical approaches, schedules and cost factors to support technical reviews of JIE implementation.</li> </ul>			

**UNCLASSIFIED**

<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2023 Office of the Secretary Of Defense	<b>Date:</b> April 2022
---	-------------------------

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 7: Operational Systems Development</i>	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>
---	---

<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p>– Support the development of business case activities as required. Develop guidance (e.g., information system security engineering guidance) and programming recommendations to ensure the integration of Trusted Systems Networks concepts and processes into the acquisition and maintenance of DoD information systems, enclaves, and services, including the purchase and integration of tactical communication commodities.</p> <p><b><i>FY 2022 to FY 2023 Increase/Decrease Statement:</i></b> The increase of +\$6.941 from FY 2022 to FY 2023 is due to additional modeling &amp; simulation efforts to develop and test and spectrum measurement activities; validate and monitor the efficacy of the multiple systems Mode S IFF implementation; finalize Stage2/3 DoD/ FAA/NTIA Model and predecessor metrics; Develop 5G technology standards contributions and support continued analysis in the area of Public Safety Communications (PSC) including NextGen 911, FirstNet and Land Mobile Radio (LMR).</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	20.994	13.132	17.917

**D. Other Program Funding Summary (\$ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2023 Office of the Secretary Of Defense</b>											<b>Date: April 2022</b>				
<b>Appropriation/Budget Activity</b> 0400 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>					<b>Project (Number/Name)</b> 199 / <i>GIG Evaluation Facilities (GIG-EF) and GIG Enterprise-Wide Systems Engineering Advisory Activities</i>				

<b>Support (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Studies and Analysis	Various	Various : Various	24.734	4.747	Jul 2021	0.084	Mar 2022	0.128	Mar 2023	-		0.128	Continuing	Continuing	Continuing
Technical Engineering Services	Various	Various : Various	51.709	1.000	Jul 2021	6.273	Jul 2022	9.503	Jul 2023	-		9.503	Continuing	Continuing	Continuing
<b>Subtotal</b>			76.443	5.747		6.357		9.631		-		9.631	Continuing	Continuing	N/A

<b>Management Services (\$ in Millions)</b>				<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management Support	Various	Various : Various	24.356	4.480	Jul 2021	6.090	Mar 2022	-		-		-	Continuing	Continuing	Continuing
Program Support	FFRDC	Various : Various	2.803	0.066	Jul 2021	-		-		-		-	-	-	-
Engineering Support	FFRDC	Various : Various	20.289	9.000	Jul 2012	0.685	Dec 2021	8.286	Mar 2023	-		8.286	Continuing	Continuing	Continuing
R&D Support	Various	Various : Various	6.633	1.701	Jul 2021	-		-		-		-	-	-	-
<b>Subtotal</b>			54.081	15.247		6.775		8.286		-		8.286	Continuing	Continuing	N/A

			<b>Prior Years</b>	<b>FY 2021</b>		<b>FY 2022</b>		<b>FY 2023 Base</b>		<b>FY 2023 OCO</b>		<b>FY 2023 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			130.524	20.994		13.132		17.917		-		17.917	Continuing	Continuing	N/A

**Remarks**

**UNCLASSIFIED**

**Exhibit R-4, RDT&E Schedule Profile:** PB 2023 Office of the Secretary Of Defense **Date:** April 2022

<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>	<b>Project (Number/Name)</b> 199 / <i>GIG Evaluation Facilities (GIG-EF) and GIG Enterprise-Wide Systems Engineering Advisory Activities</i>
--	---	---

R4; PE 0305199D8Z; Net Centricity					
	10/1/2022	10/1/2023	10/1/2024	10/1/2025	10/1/2026
FY2023 Program Execution					
FY2024 Program Execution					
FY2025 Program Execution					
FY2026 Program Execution					
FY2027 Program Execution					

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2023 Office of the Secretary Of Defense		<b>Date:</b> April 2022
<b>Appropriation/Budget Activity</b> 0400 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0305199D8Z / <i>Net Centricity</i>	<b>Project (Number/Name)</b> 199 / <i>GIG Evaluation Facilities (GIG-EF) and GIG Enterprise-Wide Systems Engineering Advisory Activities</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>*** SUBPROJECT TITLE ***</b>				
FY 2022 Projected Execution	1	2021	4	2022
FY 2023 Projected Execution	1	2022	4	2023
FY 2024 Projected Execution	1	2023	4	2024
FY 2025 Projected Execution	1	2024	4	2025
FY 2026 Projected Execution	1	2025	4	2026
FY 2027 Projected Execution	1	2026	4	2027