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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605031A / Joint Tactical Network (JTN)							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	-	17.999	18.055	-	18.055	21.580	21.754	22.207	22.488	Continuing	Continuing
EF5: Joint Tactical Network (JTN)	-	-	17.999	18.055	-	18.055	21.580	21.754	22.207	22.488	Continuing	Continuing

Note

In accordance with the signed Joint Tactical Networking Center Acquisition Decision Memorandum and Charter dated 20 January 2014, PE 0605031A was established to execute JTN requirement in PB2015 with FY 2015 the only year initially aligned. The Army has aligned their Service share of JTN funding fully within the JTN PE for PB 2016. The Navy and Air Force funding for the JTN joint requirements remains in Navy PE 0605030N (shared) and Air Force PE 0605030F (shared). As part of the joint program budget strategy, each Military Department (MILDEP) budgets for approximately one-third of the total program RDT&E funds for joint efforts. Prior to the year of execution, the funding is consolidated in the Army PEs for execution.

A. Mission Description and Budget Item Justification

Joint Tactical Networks (JTN) is responsible for the portable, interoperable, mobile ad hoc networking waveforms and network enterprise services to enhance tactical warfighting capabilities. JTN applications are: (1) Interoperable – among all Services, capable of operating in a variety of hardware items, for both Program of Record and commercial Non-Developmental Item (NDI) radios; (2) Secure – meet all DoD and US Government information assurance requirements; (3) Operationally Relevant – quickly and effectively meet evolving network mission requirements of Combatant Commanders and the Services; (4) Affordable – drive down procurement and support costs via a robust, competitive Non-Developmental Item (NDI) market which adheres to open government standards.

In accordance with the Joint Tactical Networking Center Acquisition Decision Memorandum (ADM) and Charter dated 20 January, 2014, the JTN is to actively manage and fund the Soldier Radio Waveform (SRW), the Wideband Networking Waveform (WNW) and the Joint Enterprise Network Manager (JENM). Due to the JTN's extensive knowledge and expertise, the JTN will also enhance, update, and sustain the following Legacy Waveforms on a reimbursable basis: the High Frequency (HF) waveform, the merged HAVE QUICK II (HQII) and Very High Frequency (VHF)/Ultra High Frequency (UHF) Line of Sight (VULOS) waveforms, the JTRS Bowman waveform (JBW), the SINCGARS waveform and the UHF Satellite Communications (SATCOM) waveform. Prior to FY 2016 JTN is responsible for the development of the Mobile User Objective System (MUOS) and the Link-16 waveforms which will transition to Navy in FY 2016, in accordance with the ADM dated 20 Jan 2014.

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)		PE 0605031A / Joint Tactical Network (JTN)			
B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	17.999	-	-	-
Current President's Budget	-	17.999	18.055	-	18.055
Total Adjustments	-	-	18.055	-	18.055
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	18.055	-	18.055

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army									Date: February 2015			
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605031A / Joint Tactical Network (JTN)				Project (Number/Name) EF5 / Joint Tactical Network (JTN)			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
EF5: Joint Tactical Network (JTN)	-	-	17.999	18.055	-	18.055	21.580	21.754	22.207	22.488	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
In FY 2013, Joint Tactical Networks (JTN) was funded in the Navy Program Element (PE) 0604280N (Joint Tactical Radio System (JTRS)), Project No.3076 (formally known as JTRS Network Enterprise Domain (JNED)) along with the Joint Tactical Networking Center (JTNC). JNED was renamed JTN and the Joint Executive Program Office (JPEO) JTRS transitioned to the JTNC in FY 2013 in accordance with the Acquisition Decision Memorandum (ADM) dated 11 July 2012. In FY 2014, the JTN program was funded in the Army PE 0605030A, shared with JTNC.												
As per the Acquisition Decision Memorandum (ADM) dated 20 Jan 2014, JTN and JTNC became separate entities. For FY 2015 and FY 2016, PE 0605031 contains only the JTN RDT&E funding while JTNC remains funded in PE 0605030. For FY2017 and out, the continuing JTNC and JTN remain under separate joint budget strategies in Army PE 0605031A (JTN), Army PE 0605030A (JTNC), Navy PE 0605030N (shared), and Air Force PE 0605030F (shared). As part of the joint program budget strategy, each Military Department (MILDEP) budgets for approximately one-third of the total program RDT&E funds for joint efforts. Prior to the year of execution, the funding is consolidated in the Army PE for execution.												
A. Mission Description and Budget Item Justification												
Joint Tactical Networks (JTN) is responsible for the portable, interoperable, mobile ad hoc networking waveforms and network enterprise services to enhance tactical warfighting capabilities. JTN applications are: (1) Interoperable – among all Services, capable of operating in a variety of hardware items, for both Program of Record and commercial Non-Developmental Item (NDI) radios; (2) Secure – meet all DoD and US Govt information assurance requirements; (3) Operationally Relevant – quickly and effectively meet evolving network mission requirements of Combatant Commanders and the Services; (4) Affordable – drive down procurement and support costs via a robust, competitive NDI market which adheres to open government standards.												
In accordance with the Joint Tactical Networking Center Acquisition Decision Memorandum (ADM) and Charter dated 20 January, 2014, the JTN is to actively manage and fund the Soldier Radio Waveform (SRW), the Wideband Networking Waveform (WNW) and the Joint Enterprise Network Manager (JENM). Due to the JTN's extensive knowledge and expertise, the JTN will also enhance, update, and sustain the following Legacy Waveforms on a reimbursable basis: the High Frequency (HF) waveform, the merged HAVE QUICK II (HQII) and Very High Frequency (VHF)/Ultra High Frequency (UHF) Line of Sight (VULOS) waveforms, the JTRS Bowman waveform (JBW), the SINCGARS waveform and the UHF Satellite Communications (SATCOM) waveform. Prior to FY 2016 JTN is responsible for the development of the Mobile User Objective System (MUOS) and Link-16 waveforms which will transition to Navy in FY 2016, in accordance with the ADM dated 20 Jan 2014.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2014	FY 2015	FY 2016	
Title: Legacy Radio Waveforms/Program Office Support									-	10.493	5.562	

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605031A / Joint Tactical Network (JTN)	Project (Number/Name) EF5 / Joint Tactical Network (JTN)		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
Description: Legacy Radio Waveforms/Program Office Support: Includes the continued development, incremental upgrades, and software efficiencies of legacy software and other related activities to support the legacy waveform integration into hardware solutions in the field. FY 2015 Plans: Continue to support waveform integration, test and evaluation, and program office support. FY 2016 Plans: Continue to support waveform integration, test and evaluation to include hardware and software waveform Certification Process to meet program requirements. Continue JTN program office support.				
Title: Solder Radio Waveform (SRW) Description: Soldier Radio Waveform (SRW) will operate on tactical radio sets to provide a networked battlefield communications capability for power disadvantaged users engaged in land combat operations and will support voice, data, and video communications on the immediate battlefield. These forces include vehicles, rotary wing, dismounted soldiers, munitions, sensors, and unmanned air vehicles (UAV). Functional software applications will use SRW enabled JTR sets over Internet Protocol (IP) capable networks and sub-networks. SRW will be interoperable with higher throughput, IPbased network waveforms, such as Wideband Networking Waveform (WNW). As applicable, these IP-based networking waveforms will enable information exchanges through the GIG to the soldier and provide entirely new capabilities for battlefield communications and information sharing. SRW is currently ported on 23 different platforms with 11 different vendors. FY 2015 Plans: Continue to develop test plans and procedures for full SRW waveform conformance, enhancements to SRW v1.2.1 and v1.2.2. FY 2016 Plans: Continue Information Assurance (IA) assessments, develop test plans and procedures for full SRW waveform conformance, enhancement to SRW v2.X.		-	0.961	2.066
Title: Wideband Networking Waveform (WNW) Description: Wideband Networking Waveform (WNW) is a high data rate Mobile Adhoc NETworking (MANET) waveform application that provides the mid tier tactical Internet backbone and connects tactical forces across the battle sphere. WNW will provide high throughput, dynamically adaptable connectivity for the exchange of Internet Protocol (IP) based voice, data, and video traffic. WNW will feature two signals-in-space (SiS), which are the Orthogonal Frequency Division Multiplexing (OFDM) and Anti-Jam (AJ). WNW will support network nodes on mobile, airborne, and maritime platforms. WNW includes networking services, security, High Assurance IP Equipment (HAPE) capabilities, red black switching, and internal routing of other WNW signals. WNW is currently ported on 9 platforms with 5 different vendors.		-	2.758	5.440

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605031A / Joint Tactical Network (JTN)	Project (Number/Name) EF5 / Joint Tactical Network (JTN)		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016
FY 2015 Plans: Continue enhancements, software modifications and version drop. Maintain test facility to conduct WNW test and evaluation. Develop test plans and procedures for full WNW Waveform Conformance for WNW v4.1 and v5.0				
FY 2016 Plans: Continue enhancements, software modifications and version drops. Maintain test facility to conduct WNW test and evaluation. Develop test plans and procedures for full WNW Waveform Conformance for WNW v6.X.				
Title: Mobile User Objective System (MUOS) Waveform Description: Mobile User Objective System (MUOS) Waveform will enable MUOS satellites to provide worldwide communication satellite coverage for DoD requirements. MUOS will provide functionality comparable to commercial mobile phone systems. MUOS offers secure streaming video, netted communications, and voice/data in real time to provide essential connectivity. The JTN program will modify this waveform, making it compatible and certifiable with DoD security requirements while enabling porting to tactical radio sets. MUOS is currently being ported by 8 vendors on 6 different platforms.		-	0.871	-
FY 2015 Plans: Continue software testing, upgrades, enhancements, software modifications and software version drop v3.1.3 to meet DoD requirements.				
Title: Joint Enterprise Net Manager (JENM) Description: JTRS Network Enterprise Services (JNES)/Joint Enterprise Net Manager (JENM): Prior to FY13, JTRS Network Enterprise Services (JNES) included the development and acquisition of JTRS WNW Network Manager (JWNM), Joint Enterprise Net Manager (JENM), Soldier Radio Waveform Network Manager (SRWNM), and Enterprise Network Services (ENS). In FY13 and out, JENM provides consolidated communications planning, network configuration, network activation, position reporting, fault management, security management, and network health and status reporting needed to establish and maintain a mobile wireless network comprised of JTN network waveforms. JENM can interface with other external network managers, mission planning systems, network planning systems, key management systems, and spectrum planning systems. JENM is considered a mission essential system. JENM is also considered a critical element within the J-TNT configuration management tool kit.		-	2.916	4.987
FY 2015 Plans: Continue enhancements, software modifications, upgrades with full capabilities to JENM v1 and JENM v2 and software version drops (v1 and v3).				
FY 2016 Plans:				

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Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0605031A / <i>Joint Tactical Network (JTN)</i>				Project (Number/Name) EF5 / <i>Joint Tactical Network (JTN)</i>				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2014	FY 2015	FY 2016
Continue Information Assurance (IA) assessments, enhancements, software modifications, upgrades with full capabilities to JENM v4 and software version drops (v4.X).												
Accomplishments/Planned Programs Subtotals										-	17.999	18.055
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
• 0605030A: 0605030A; JTNC, RDTE,A	65.849	8.436	-	-	-	-	-	-	-	Continuing	Continuing	
• 0605030F: 0605030F; JTNC, RDTE,F	-	-	-	-	-	16.520	16.840	17.160	17.450	Continuing	Continuing	
• 0605030N: 0605030N; JTNC, RDTE,N	-	-	-	-	-	2.926	2.734	10.168	10.295	Continuing	Continuing	
• 4326750A: 4326750A; JTN, O&M,A	-	28.408	8.993	-	8.993	-	-	-	-	Continuing	Continuing	
Remarks												
In FY2014, the Joint Tactical Networks (JTN) was funded in the Army Program Element (PE) 0605030A. This was a shared line with JTNC.												
In FY 2015 PE 0605031A contains only the JTN RDTE funding.												
In accordance with the Acquisition Decision Memorandum (ADM) dated 11 July 2012, the JTRS Program of Records (PORs) transitioned to Military Department (MILDEP) managed programs. As part of the joint program budget strategy, each MILDEP budgets for approximately one-third of the total program RDT&E funds for joint efforts. Prior to the year of execution, the JTN funding is consolidated in the Army PE (0605031A) and software sustainment funds are realigned from RDT&E to O&M,A PE (4326750A) to support the JTN joint program acquisition strategy.												
D. Acquisition Strategy												
Joint Tactical Networks (JTN) is responsible for common core activities including developing and updating legacy and networking waveforms that operate on multiple hardware sets and in all operational environments that support network-centric operational warfare, as well as common networking services (interface standards, network managers, etc). Waveform developments (upgrading, developing, and maintaining) will generally be procured through full and open contract competitions. The JTN program is developing waveforms and Cryptographic Equipment Applications (CEAs) for use within the software-defined radio community.												
The FY 2016 Budget supports continued development of waveforms/supporting software, testing support, and the National Security Agency (NSA) evaluation of software Information Assurance (IA) compliance. FY 2014 and FY 2015 development efforts were executed from Army PEs 0605030A and 0605031A, respectively.												

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E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0605031A / Joint Tactical Network (JTN)				Project (Number/Name) EF5 / Joint Tactical Network (JTN)					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Support	C/CPFF	Booz Allen Hamilton : San Diego, CA	0.000	-		0.336	Dec 2014	0.337	Dec 2015	-		0.337	Continuing	Continuing	Continuing
Program Management	C/CPFF	G2 Software Systems : San Diego, CA	0.000	-		0.840	Nov 2014	0.843	Nov 2015	-		0.843	Continuing	Continuing	Continuing
Subtotal			0.000	-		1.176		1.180		-		1.180	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Post Formal Qualification Testing-JENM	C/CPIF	Boeing : Huntington Beach, CA	0.000	-		2.095	Dec 2014	2.896	Nov 2015	-		2.896	Continuing	Continuing	Continuing
Post Formal Qualification Testing-WNW	C/CPIF	General Dynamics : Scottsdale, AZ	0.000	-		1.436	Nov 2014	1.540	Oct 2015	-		1.540	Continuing	Continuing	Continuing
Post Formal Qualification Testing-SRW	C/CPIF	Harris : Rochester, NY	0.000	-		1.225	Dec 2014	1.329	Nov 2015	-		1.329	Continuing	Continuing	Continuing
Software Communications Architecture (SCA) Compliance	MIPR	NSA : Fort Meade, MD	0.000	-		0.476	Oct 2014	0.477	Nov 2015	-		0.477	Continuing	Continuing	Continuing
Post FQT/Software Support	MIPR	SSC PAC : San Diego, CA	0.000	-		3.796	Dec 2014	3.808	Nov 2015	-		3.808	Continuing	Continuing	Continuing
Post FQT/Software Support	MIPR	CERDEC : APG, MD	0.000	-		0.305	Oct 2014	0.306	Oct 2015	-		0.306	Continuing	Continuing	Continuing
Post FQT/Software Support	MIPR	SSC LANT : Charleston, SC	0.000	-		2.610	Nov 2014	2.619	Oct 2015	-		2.619	Continuing	Continuing	Continuing
Post Formal Qualification Testing-MUOS	C/CPIF	Lockheed Martin Corp. : Sunnyvale, CA	0.000	-		0.660	Nov 2014	-		-		-	-	0.660	0.660
Post Formal Qualification Testing-Link 16	C/CPIF	BAE : Wayne, NJ	0.000	-		0.332	Nov 2014	-		-		-	-	0.332	0.332
Subtotal			0.000	-		12.935		12.975		-		12.975	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army													Date: February 2015		
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0605031A / Joint Tactical Network (JTN)				Project (Number/Name) EF5 / Joint Tactical Network (JTN)							
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Remarks FY 2015 & FY16 PE 0605031A represents the total JTN RDTE budget.															
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development/Engineering/Technical Support	C/CPFF	Various : various	0.000	-		0.991	Jan 2015	0.994	Jan 2016	-		0.994	Continuing	Continuing	Continuing
Subtotal			0.000	-		0.991		0.994		-		0.994	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JTN Test and Evaluation Support	C/CPFF	Booz Allen Hamilton : San Diego, CA	0.000	-		0.702	Dec 2014	0.704	Oct 2015	-		0.704	Continuing	Continuing	Continuing
JTN Test and Evaluation	FFRDC	MITRE : San Diego, CA	0.000	-		1.600	Dec 2014	1.605	Nov 2015	-		1.605	Continuing	Continuing	Continuing
JTN Test and Evaluation Support	C/CPFF	G2 Software Systems : San Diego, CA	0.000	-		0.595	Nov 2014	0.597	Oct 2015	-		0.597	Continuing	Continuing	Continuing
Subtotal			0.000	-		2.897		2.906		-		2.906	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		17.999		18.055		-		18.055	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army	Date: February 2015
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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605031A / <i>Joint Tactical Network (JTN)</i>	Project (Number/Name) EF5 / <i>Joint Tactical Network (JTN)</i>
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Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Wideband networking Waveform (WNW)									WNW Software Enhancement and Version Drops (Continuous)																			
Soldier Radios Waveform (SRW)									SRW Software Enhancement and Version Drops (Continuous)																			
Mobile User Objective System (MUOS) Waveform									MUOS Software Version Drop v3.1.3																			
JTRS Enterprise Network Manager (JENM)									JENM Software Enhancement and Version Drops (Continuous)																			

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army	Date: February 2015
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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605031A / <i>Joint Tactical Network (JTN)</i>	Project (Number/Name) EF5 / <i>Joint Tactical Network (JTN)</i>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Wideband networking Waveform (WNW)	1	2016	4	2021
Soldier Radios Waveform (SRW)	1	2016	4	2021
Mobile User Objective System (MUOS) Waveform	1	2015	4	2015
JTRS Enterprise Network Manager (JENM)	1	2016	4	2021