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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Navy	DATE: April 2013
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APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>					PE 0204575N: <i>Elect Warfare Readiness Supt</i>							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	199.562	17.686	19.843	19.563	-	19.563	31.320	39.710	42.336	46.545	Continuing	Continuing
2263: <i>Information Warfare System</i>	199.562	17.686	19.843	19.563	-	19.563	31.320	39.710	42.336	46.545	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

Research, assess, and develop information warfare capabilities.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014 Base</u>	<u>FY 2014 OCO</u>	<u>FY 2014 Total</u>
Previous President's Budget	18.142	19.843	14.397	-	14.397
Current President's Budget	17.686	19.843	19.563	-	19.563
Total Adjustments	-0.456	0.000	5.166	-	5.166
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.456	0.000			
• Program Adjustments	0.000	0.000	0.689	-	0.689
• Rate/Misc Adjustments	0.000	0.000	4.477	-	4.477

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Navy										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0204575N: Elect Warfare Readiness Supt				PROJECT 2263: Information Warfare System			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
2263: Information Warfare System	199.562	17.686	19.843	19.563	-	19.563	31.320	39.710	42.336	46.545	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0		0	0	0	0	0		
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
Funding for this Project Code will be managed by BSO 60 starting in FY14.												
A. Mission Description and Budget Item Justification												
Information Operations (IO) Counter Measure Capability Research and Development: Develops software to account for antenna modeling, weather calculations, radio frequency modeling, signals mapping and terrain modeling for warfighter use in configuring optimal Electronic Attack (EA) from afloat.												
Maritime Cryptologic Systems for the 21st Century (MCS-21) Systems Development and Support: Develops and fields spiral EA and cyber capabilities against Fleet Forces Command prioritized signals, networks, and target sets. EA capabilities will be integrated into a software architecture baseline that is deployed on subsurface, airborne and surface IO platforms (Classic Troll, Banshee and Ships Signal Exploitation Equipment Increment E and Increment F). Also included is the Navy's investment in Integrated Communications and Data System proof of concept system and Office of the Chief of Naval Operations N2/N6 sponsored PACSAIL research project.												
Research, Analysis and Research and Development Technical Support: Conducts vulnerability analysis and reverse engineering on emerging threats and targets and provides specialized technical, engineering and management capabilities to the program management office. (Specific details held at a higher classification level)												
Computer Network Operations: Funds development and testing of computer networks for modeling, simulation, and tailoring of Cyber capabilities. Develops specific Cyber tools, techniques, and operators in support of Fleet Cyber Command and Commander, TENTH Fleet requirements. (Specific development details held at a higher classification level). Conducts vulnerability analyses and reverse engineering on improvised explosive devices (Specific details held at a higher classification level)												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Electronic Warfare / Information Operations (IO) Countermeasure Capability Research & Development									4.631	4.523	4.086	
									Articles: 0	0	0	

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Description: Information Operations (IO) Counter Measure Capability Research and Development: Develops and tests IO Countermeasure capabilities across various platforms. Develops specific waveforms to attack adversary systems. Develops and uses modeling and simulation techniques to prototype and test emergent waveforms. FY 2012 Accomplishments: * Continued Modeling and Simulation Lab (Applied/projected level of effort) * Continued IW/IO EA and cyber capability development (Details held at higher classification level) * Continued Waveform Weapon Development FY 2013 Plans: * Continue Modeling and Simulation Lab (Applied/projected level of effort) * Continue Information Warfare/Information Operations (IW/IO) EA capability development (Details held at higher classification level) FY 2014 Plans: * Develop and test IO Countermeasures capabilities across various platforms. * Develop specific waveforms to attack adversary systems. * Develop and use modeling and simulations techniques to prototype and test emergent waveforms. * Continue Modeling and Simulation Lab (Applied/projected level of effort). * Continue Information Warfare (IW)/Information Operations (IO) Electronic Attack (EA) capability development (Details held at a higher classification level). * Continue Waveform Weapon Development.			
Title: Electronic Warfare Readiness/MCS-21 Systems Development Articles:		3.546 0	4.992 0
Description: Maritime Cryptologic Systems for the 21st Century Systems Development: Develops and fields spiral EA and cyber capabilities against Fleet Forces Command prioritized signals, networks and target sets. Capabilities will be integrated into a software architecture baseline that is deployed on subsurface, airborne and surface Information Operations platforms (Classic Troll, Banshee and Ships Signal Exploitation Equipment Increment E and Increment F). FY 2012 Accomplishments: * Continued IW/IO EA capability development & integration (Details held at higher classification level) FY 2013 Plans:			0.637 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
*Continue IW/IO EA capability development & integration (Details held at higher classification level)				
FY 2014 Plans: * Develop and field spiral EA and cyber capabilities against Fleet Forces Command prioritized signals, networks and targets sets. Capabilities will be integrated into a software architecture baseline that is deployed on subsurface, airborne, and surface IP platforms (Classic Troll, Banshee, and Ships Exploitation Increment E and Increment F). * Continue IW/IO EA capability development & integration (Details held at higher classification level). * Continue Research and Analysis (Details held at higher classification level).				
Title: Electronic Warfare/Research, Analysis and R&D Technical Support Articles: Description: Research, Analysis and Research and Development Technical Support: Conducts vulnerability analysis and reverse engineering on emerging threats and targets and provides specialized technical, engineering and management capabilities to the program management office. (Specific details held at a higher classification level) FY 2012 Accomplishments: * Continued Technical and intelligence related studies and contractor engineering, technical and management capabilities. * Continued Research and Analysis (Details held at higher classification level) FY 2013 Plans: * Continue Technical and intelligence related studies and contractor engineering, technical and management capabilities. * Continue Research and Analysis (Details held at higher classification level) FY 2014 Plans: *Conduct vulnerability analysis and reverse engineering on emerging threats and targets and provide specialized technical, engineering and management capabilities to the program management office. (Specific details held at a higher classification level). *Technical and intelligence related studies and contractor engineering, technical and management capabilities. *Research and Analysis (Details held at higher classification level).		6.386 0	6.588 0	5.696 0
Title: Electronic Warfare/Computer Network Operations Articles: Description: Computer Network Operations (CNO): Funds development and testing of computer networks for modeling, simulation, and tailoring of Cyber capabilities. Develops specific Cyber tools, techniques, and operators in support of Fleet Cyber Command and Commander, TENTH Fleet requirements. (Specific development details held at a higher classification level)		3.123 0	3.740 0	9.144 0

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
<i>FY 2012 Accomplishments:</i> * Continued Research and Development at the Integrated Testing Facility * Continued Computer Network Attack Capabilities Development (Details held at higher classification level) * Continued Demonstration of Advanced Computer Network Operations Concept (Details held at higher classification level) <i>FY 2013 Plans:</i> * Continue Research and Development at the Integrated Testing Facility * Continue Computer Network Attack Capabilities Development (Details held at higher classification level) * Continue Demonstration of Advanced Computer Network Operations Concept (Details held at higher classification level) <i>FY 2014 Plans:</i> *Develop Cyber tools, techniques, and operators in support of Fleet Cyber Command and Commander, TENTH Fleet requirements. (Specific development details held at a higher classification level). *CNO Research and Development Integration Testing Facility. *Computer Network Attack Capabilities (Details held at a higher classification level). *Demonstration of Advanced Computer Network Operations Concept (Details held at a higher classification level).			
Accomplishments/Planned Programs Subtotals	17.686	19.843	19.563

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTEN/0604270N/1742: <i>Electronic Warfare Technical Development</i>	1.739	1.702	1.352		1.352	1.652	1.642	1.665	1.596	Continuing	Continuing
Remarks											
D. Acquisition Strategy These programs are designated non-ACAT and operate under streamlined acquisition. This designation supports a streamlined acquisition process using the Advanced Concept Technology Demonstration documentation of the Defense Acquisition Guidance.											
E. Performance Metrics Measures include quality and impact of new ideas and approaches, the success of the technology application in satisfying Combatant Commanders and Fleet requirements, and successful cost effective transition of the capability into operational systems. The goal of these investments is to provide to Commanders non-kinetic options to influence adversaries and prevent escalation of crises. Due to the nature and classification of these efforts, qualitative measures are used. It is the											

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intent through the development of modeling and simulation scenarios and capabilities to develop quantitative metrics. The success of this depends heavily on the insight obtained via various intelligence community efforts.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Navy												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0204575N: Elect Warfare Readiness Supt				PROJECT 2263: Information Warfare System					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Various	Classified-1:Classified	20.728	1.000	Oct 2011	1.400	Oct 2012	4.783	Oct 2013	-		4.783	Continuing	Continuing	Continuing
System Engineering	SS/CPFF	Applied Research Laboratory:University Park, PA	1.070	0.365	Jan 2012	0.500	Nov 2012	0.500	Nov 2013	-		0.500	0.000	2.435	
Ancillary Hardware Development	Various	Classified-2:Classified	12.375	0.000		0.000		0.000		-		0.000	0.000	12.375	
Systems Engineering	SS/CPFF	ARGON:Fairfax, VA	3.865	0.000		0.000		0.000		-		0.000	0.000	3.865	
Systems Engineering	WR	NRL:Washington, DC	3.395	0.392	Oct 2011	0.392	Oct 2012	0.850	Oct 2013	-		0.850	0.000	5.029	
Subtotal			41.433	1.757		2.292		6.133		0.000		6.133			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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 Support	SS/CPFF	ARGON-1:Fairfax, VA	11.428	1.346	Dec 2011	1.450	Oct 2012	0.250	Oct 2013	-		0.250	0.000	14.474	
Software Development	SS/CPFF	L3 Communications:New York, NY	64.682	0.550	Dec 2011	0.550	Dec 2012	0.333	Dec 2013	-		0.333	0.000	66.115	
Development Support	WR	SSC PAC:San Diego, VA	0.000	0.000		0.000		0.368	Oct 2013	-		0.368	0.000	0.368	
Software Development	SS/CPFF	ARGON-2:Fairfax, VA	0.000	0.000		0.000		0.834	Nov 2013	-		0.834	0.000	0.834	
Development Support	WR	NRL-1:Washington, DC	1.060	0.550	Nov 2011	0.550	Nov 2012	0.620	Nov 2013	-		0.620	0.000	2.780	
Development Support	Various	Classified-1:Classified	9.892	0.607	Nov 2011	0.611	Nov 2012	3.033	Nov 2013	-		3.033	0.000	14.143	
Studies & Analysis	WR	NRL-2:Washington, DC	0.000	0.000		0.000		1.654	Oct 2013	-		1.654	0.000	1.654	
Software Development	SS/CPFF	ARL:University Park, PA	3.100	0.400	Nov 2011	0.400	Nov 2012	0.250	Nov 2013	-		0.250	0.000	4.150	

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0204575N: Elect Warfare Readiness Supt						PROJECT 2263: Information Warfare System			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	SS/CPFF	ARGON-3:Fairfax, VA	14.958	1.833	Nov 2011	3.051	Nov 2012	0.000		-		0.000	0.000	19.842	
Software Development	WR	NRL-3:Washington, DC	1.945	0.000		0.000		0.000		-		0.000	0.000	1.945	
Software Development	Various	Classified-2:Classified	21.265	4.153	Oct 2011	3.321	Oct 2012	4.209	Oct 2013	-		4.209	0.000	32.948	
Research, Studies and Vulnerability	WR	NRL-4:Washington, DC	13.214	1.654	Oct 2011	1.546	Oct 2012	0.000		-		0.000	0.000	16.414	
Development Support	WR	SSC PAC:San Diego, CA	2.441	1.111	Oct 2011	2.147	Oct 2012	0.000		-		0.000	0.000	5.699	
Development Support	C/BA	NSWC:Philadelphia, PA	1.829	1.400	Oct 2011	1.400	Oct 2012	0.000		-		0.000	0.000	4.629	
Subtotal			145.814	13.604		15.026		11.551		0.000		11.551	0.000	185.995	
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	NAWC:China Lake, CA	5.402	0.100	Dec 2011	0.100	Dec 2012	0.440	Oct 2013	-		0.440	0.000	6.042	
Subtotal			5.402	0.100		0.100		0.440		0.000		0.440	0.000	6.042	
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering and Program Management	Various	Classified-1:Classified	5.121	1.000	Nov 2011	1.000	Nov 2012	0.000		-		0.000	0.000	7.121	
Acquisition Workforce Fund 2009	Various	Various:Various	0.117	0.000		0.000		0.000		-		0.000	0.000	0.117	
Program Management Support	Various	Classified-2:Classified	0.000	0.000		0.000		0.530	Nov 2013	-		0.530	0.000	0.530	

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>							R-1 ITEM NOMENCLATURE PE 0204575N: <i>Elect Warfare Readiness Supt</i>					PROJECT 2263: <i>Information Warfare System</i>			

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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 Engineering	Various	Classified-3:Classified	0.000	0.000		0.000		0.909	Nov 2013	-		0.909	0.000	0.909	
Project Engineering	Various	Classified-4:Classified	1.675	1.225	Oct 2011	1.425	Oct 2012	0.000		-		0.000	0.000	4.325	
Subtotal			6.913	2.225		2.425		1.439		0.000		1.439	0.000	13.002	

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	199.562	17.686		19.843		19.563		0.000		19.563			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Navy

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 7: *Operational Systems Development*

R-1 ITEM NOMENCLATURE

PE 0204575N: *Elect Warfare Readiness*
Supt

PROJECT

2263: *Information Warfare System*

Information Warfare System	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Development Work																												
Waveforms			FIOC Del. ▲			FIOC Del. ▲					▲				▲			▲				▲					▲	
Unique Access																												
TESTING																												
Prototypes	▲						▲				▲			▲				▲				▲						
MCS-21 Integration																												
DELIVERIES																												
IO Capabilities																												
CNO Capabilities																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0204575N: <i>Elect Warfare Readiness</i> <i>Supt</i>	PROJECT 2263: <i>Information Warfare System</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Information Warfare System				
Development Work: Waveforms: 1-Waveforms	3	2012	3	2012
Development Work: Waveforms: 2-Waveforms	2	2013	2	2013
Development Work: Waveforms: 3-Waveforms	4	2014	4	2014
Development Work: Waveforms: 4-Waveforms	4	2015	4	2015
Development Work: Waveforms: 5-Waveforms	4	2016	4	2016
Development Work: Waveforms: 6-Waveforms	4	2017	4	2017
Development Work: Waveforms: 7-Waveforms	4	2018	4	2018
Development Work: Unique Access: 1-Unique Access	1	2014	4	2014
Development Work: Unique Access: 2-Unique Access	3	2015	2	2016
Development Work: Unique Access: 3-Unique Access	1	2017	4	2017
Development Work: Unique Access: 4-Unique Access	2	2018	3	2018
TESTING: Prototypes: 1-Prototypes	1	2012	1	2012
TESTING: Prototypes: 2-Prototypes	3	2013	3	2013
TESTING: Prototypes: 3-Prototypes	3	2014	3	2014
TESTING: Prototypes: 4-Prototypes	2	2015	2	2015
TESTING: Prototypes: 5-Prototypes	4	2015	4	2015
TESTING: Prototypes: 6-Prototypes	4	2016	4	2016
TESTING: Prototypes: 7-Prototypes	4	2017	4	2017
TESTING: MCS-21 Integration: 1-MCS-21 Integration	2	2014	3	2014
TESTING: MCS-21 Integration: 2-MCS-21 Integration	2	2015	3	2015
TESTING: MCS-21 Integration: 3-MCS-21 Integration	2	2016	3	2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Navy			DATE: April 2013	
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		Start		End
Events by Sub Project		Quarter	Year	Quarter
				Year
TESTING: MCS-21 Integration: 4-MCS-21 Integration		2	2017	3
TESTING: MCS-21 Integration: 5-MCS-21 Integration		2	2018	3
DELIVERIES: IO Capabilities: 1-IO Capabilities		1	2012	4
DELIVERIES: IO Capabilities: 2-IO Capabilities		4	2014	4
DELIVERIES: IO Capabilities: 3-IO Capabilities		4	2015	4
DELIVERIES: IO Capabilities: 4-IO Capabilities		4	2016	4
DELIVERIES: IO Capabilities: 5-IO Capabilities		4	2017	4
DELIVERIES: IO Capabilities: 6-IO Capabilities		4	2018	4
DELIVERIES: CNO Capabilities: 1-CNO Capabilities		4	2012	4
DELIVERIES: CNO Capabilities: 2-CNO Capabilities		4	2013	4
DELIVERIES: CNO Capabilities: 3-CNO Capabilities		4	2014	4
DELIVERIES: CNO Capabilities: 4-CNO Capabilities		4	2015	4
DELIVERIES: CNO Capabilities: 5-CNO Capabilities		4	2016	4
DELIVERIES: CNO Capabilities: 6-CNO Capabilities		4	2017	4
DELIVERIES: CNO Capabilities: 7-CNO Capabilities		4	2018	4