Technomics
Better Decisions Faster

Sustainment Cost Reporting

Presenting Today

Sandi Enser

Sustainment SME/PMP

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"More than 60 percent of Navy and Marine Corps strike fighters are out of service, the Navy confirmed today."[1]

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"Today, the vast majority of Marine Corps aircraft can't fly…Out of 276 F/A-18 Hornet strike fighters in the Marine Corps inventory, only about 30 percent are ready to fly…Similarly only 42 of 147 heavy-lift CH-53E Super Stallion helicopters are airworthy."[2]

"…Air Force grounded 31 squadrons of aircraft for more than three months, deferred depot maintenance, slashed facility upkeep by half and furloughed the vast majority of its civilian employees."[3]

"Today, only 33 percent of our brigades are ready, when our sustained readiness rate should be closer to 70 percent."[4]

To Help Avoid Those Headlines

- Visibility and understanding of sustainment costs
  - Centralized databases capturing costs for Government-performed activities
    - Navy: Visibility and Management of Operating and Support Costs (VAMOSC) https://www.vamosc.navy.mil/
    - Air Force: Air Force Total Ownership Cost (AFTOC) https://aftoc.hill.af.mil
    - Army: Operating and Support Management Information System (OSMIS) https://www.osmisweb.army.mil
  - Cost and Software Data Reports (CSDR) database capturing actual costs for maintenance efforts performed by contractors
    - All of these are accessible by Government employees from the Cost Assessment Data Enterprise (CADE), http://cade.osd.mil/
  - CSDR reporting by some Government entities (Depots etc.)
- Actuals data supports the feedback loop that leads to better execution to budget, especially in constrained/sequestered environment

Why Sustainment Reporting?

- Weapons System Acquisition Reform Act (WSARA) of 2009 requires O&S cost data collection for ACAT I and II Programs
  - Section 304: “Assess the feasibility and advisability of establishing baselines for operating and support costs under section 2435 of title 10, United States Code.”
  - Mandates annual O&S reports[5]
- 2012 National Defense Authorization Act (NDAA) mandates tracking, assessing and management of system O&S costs. The law requires DoD to improve its processes for
  - Estimating O&S costs
  - Collecting and retaining data on O&S costs
  - Using such data to inform system design and maintenance decisions[6]

2017 National Defense Appropriation Act

- Sustainment cost goal must be included in Milestone A review
- At each milestone, Milestone Decision Authority must send a report to Congress including an assessment of cost drivers for life cycle cost
- Requires that Program Manager and Contracting Officer ensure that cost data is collected for all programs over $100M
- Recommendations for improving access to and analysis of O&S Costs
- Requires sustainment review five years after Initial Operating Capability (IOC) and throughout the life cycle of the program[7]

What are Cost and Software Data Reports? (CSDRs)

- Organized via a standard, product-oriented WBS
- Reporting required on MDAP/MAIS contracts and subcontracts
  - Over $50M
  - Optional between $20M and $50M
- Helps us project future program & contract costs
- Available to all DoD Government analysts electronically
- CSDRs are a collaborative effort amongst the whole cost and acquisition community

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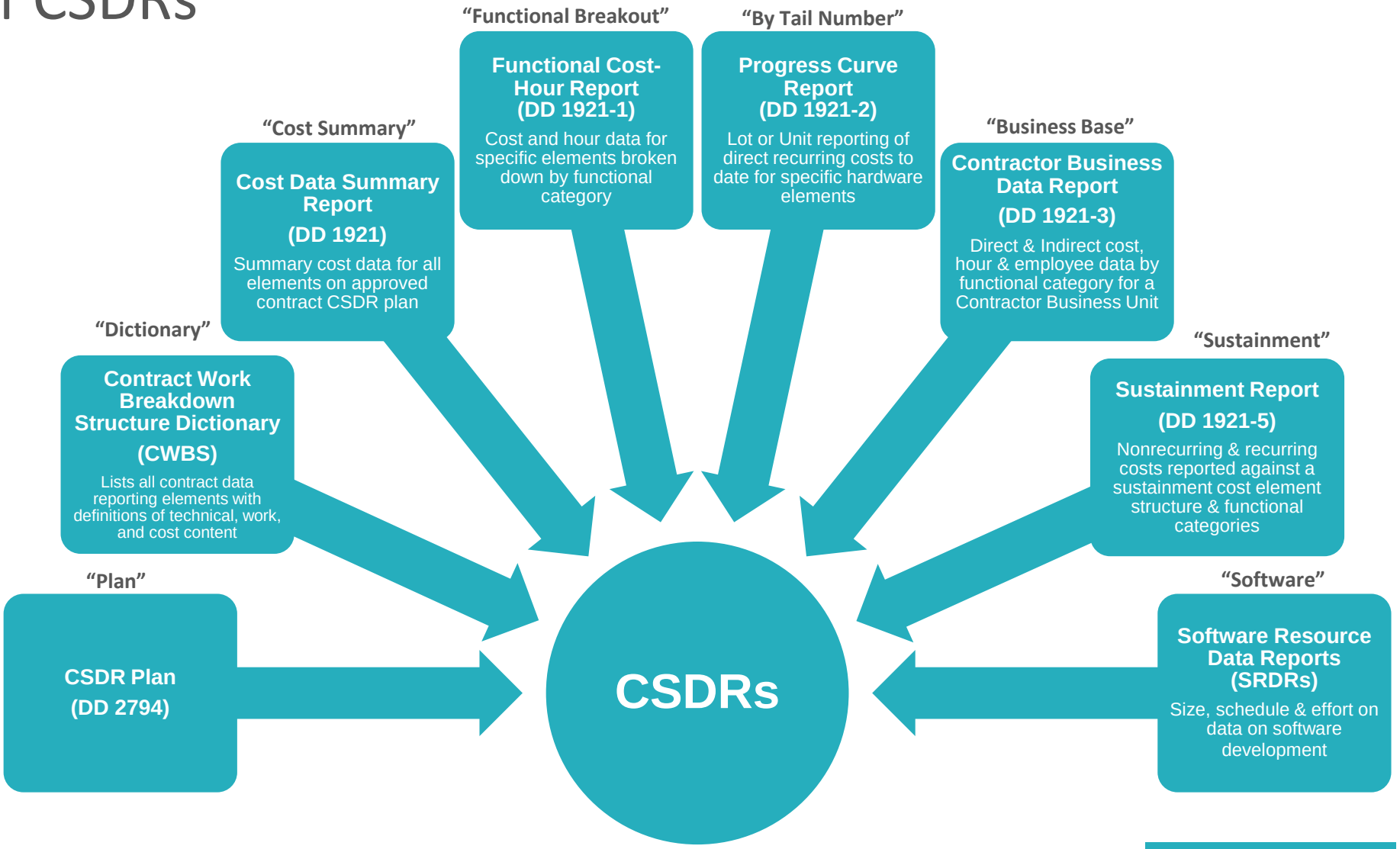
Types of CSDRs



CSDR Data We Collect Today

Technical Data Report (1921-T) and 1921-M/R

Coming Soon

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Top 6 CSDR Misconceptions

Misconception #1

CSDR Requirement doesn't apply to Firm Fixed Price contracts

- CSDRs apply to any sustainment contract or subcontract over $50M, regardless of contract type
  - Firm Fixed Price contracts may not be subject to Earned Value, but the CSDR requirement remains
  - Contract value is defined as the expected final value of the contract, including all contract years, options, etc.

Misconception #2

CSDR Requirement doesn't apply to Sustainment contracts

- CSDRs apply to ANY contract (acquisition or sustainment) over $50M
- CSDR requirement applies regardless of sustainment phase or philosophy
  - Interim Contractor Support (ICS)
  - Contractor Logistics Support (CLS)
  - Performance-Based Logistics (PBL)
  - Traditional transactions-based sustainment

Relevant Policy – DFARS (including sustainment)

- Enhanced emphasis and training on the Defense Federal Acquisition Regulation Supplement (DFARS) enacted November 2010
  - Clause 252.234-7003 requires contractors to base CSDR reporting on actual cost collection against the CCDR DID descriptions and submit CCDRs with the pricing proposal
  - Clause 252.234-7004 requires contractors to submit CCDRs and SRDRs in a timely manner in accordance with the DIDs and to require CSDR reporting from all subcontractors at any tier with a subcontract that exceeds $50 million
  - Clause 242.503-2(b) requires that the CSDR process be discussed in post-award meetings

http://www.acq.osd.mil/dpap/dars/dfars/html/current/252234.htm (clauses 252.234-7003 and 252.234-7004)

http://www.acq.osd.mil/dpap/dars/dfars/html/current/242_5.htm (clause 424.503-2(b))

Update In Process

Current CSDR Policy Document

DoDI 5000.02 CSDR Language

Contractor Sustainment Report:

"All major contracts and subcontracts, regardless of contract type, valued at more than $50 million (then year dollars)"

Dated 1/7/2015

Update Pending

Table 7. CSDR System Requirements

REQUIRED REPORT	WHEN REQUIRED	SOURCE
Contractor Cost Data Report (CCDR)	• All major contracts[1] and subcontracts, regardless of contract type, for ACAT I and IA programs and pre-MDAP and pre-MAIS programs subsequent to Milestone A approval, valued at more than $50 million[2] (then-year dollars). Reporting is continued even if a program has been downgraded from an ACAT I or IA, unless waived by DCAPE. • Not required for contracts priced below $20 million (then-year dollars). • The CCDR requirement on high-risk or high-technical-interest contracts priced between $20 million and $50 million is left to the discretion of the DoD Program Manager and/or the Deputy Director, Cost Assessment (DDCA). • Required for major components (i.e., government furnished equipment) of an ACAT I program that are managed by the Services as ACAT II or ACAT III, and if the contract value exceeds $50 million or if determined to be a high-risk or high-technical-interest contract priced between $20 million and $50 million by the Program Manager and/or the DDCA. • Not required under the following conditions, provided the DoD Program Manager requests and obtains approval for a reporting waiver from the DDCA: procurement of commercial systems or procurement of non-commercial systems bought under competitively-awarded firm fixed-price contracts, as long as competitive conditions continue to exist.	DoD 5000.04-M-1 (Reference (at)) This instruction
Software Resources Data Report (SRDR)	• All major contracts[1] and subcontracts, regardless of contract type, for contractors developing or producing software elements within ACAT I and IA programs and pre-MDAP and pre-MAIS programs subsequent to Milestone A approval for any software development element with a projected software effort greater than $20 million (then-year dollars). • The SRDR requirement on high-risk or high-technical-interest contracts priced below $20 million is left to the discretion of the DoD Program Manager and/or the DDCA.	DoD 5000.04-M-1 This instruction
Contractor Business Data Report	• Required for all contractor business entities (e.g., plant, site, or business unit) responsible for contracts with CSDR requirements.	DoD 5000.04-M-1
Contractor Sustainment Report	• All major contracts[1] and subcontracts, regardless of contract type, valued at more than $50 million[2] (then-year dollars).	SEC. 832 of P.L. 112-81 (Reference (v)) DoD 5000.04-M-1

Notes:

1. For CSDR purposes, the term "contract" (or "subcontract") may refer to the entire standalone contract, to a specific task or delivery order, to a series of tasks or delivery orders, to a contract line item number, or to a series of line item numbers within a contract. The intent is to capture data on contractual efforts necessary for cost estimating purposes irrespective of the particular contract vehicle used. All contracts for the procurement of end items, software, or services to support the acquisition of MDAP and MAIS programs (or ACAT II and III programs which meet the above thresholds) must include the Data Item Descriptions (DIDs) and Contract Data Requirements Lists necessary for the reporting of CSDR data.
2. For CSDR purposes, contract value will represent the estimated price at contract completion (i.e., initial contract award plus all expected authorized contract changes) and be based on the assumption that all contract options will be exercised.
3. CSDR is further discussed in section 4 of Enclosure 10.

Misconception #3

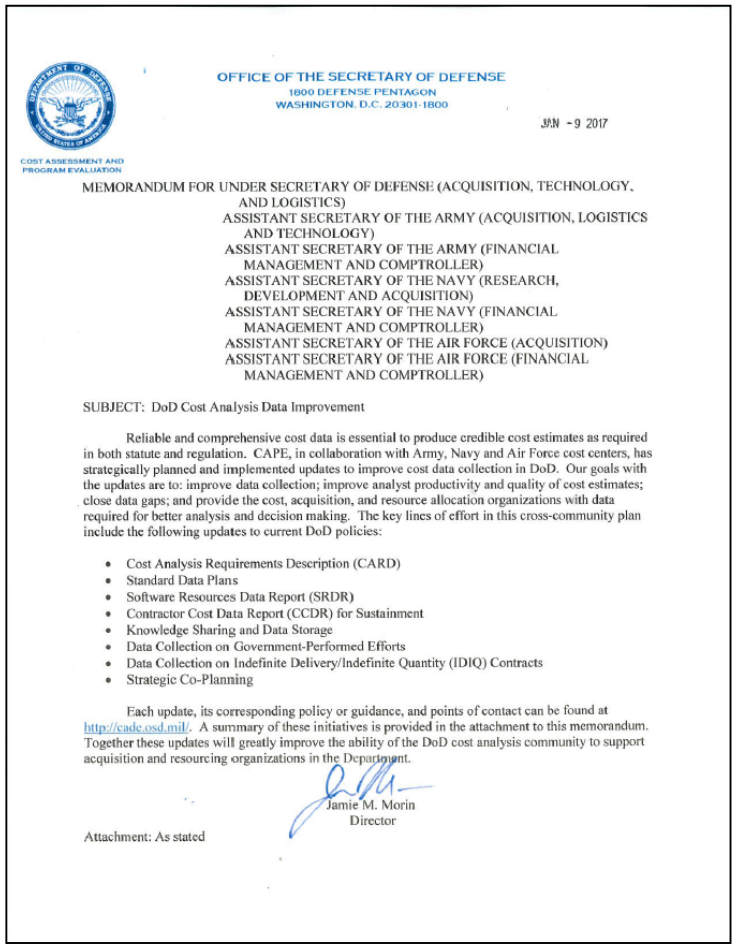
Program is not ACAT I, so CSDRs don't apply

- 2017 NDAA removes ACAT I restriction
  - CSDR reporting now applies to any program whose life cycle cost is $100M or more
  - Includes ACAT II and III programs
- Policy documents will be updated to reflect Congressional Direction
  - DFARS Clauses relating to CSDR reporting
  - DoDI 5000.02 – Operation of the Defense Acquisition System
  - DoDI 5000.73 – Cost Analysis Guidance and Procedures
  - DoDI 5000.04-M1 – CSDR Reporting Manual

Cost Analysis Improvement Memo

On January 9, 2017 Dr. Morin signed the DoD Cost Analysis Improvement Memo establishing the following:

- Cost Analysis Requirements Descriptions for Independent Cost Estimates (ICEs_ supporting Milestone Decisions occurring after October 1, 2017
- Annual Cost Analysis Requirements Description (CARDs) format for service program budget submissions Programs must use new format beginning in Fiscal Year 2018 (October 1, 2017)
- 1921-5 is officially implemented
- Clarifying policy on Indefinite Delivery/Indefinite Quantity (IDIQ) reporting
- New SRDR format for Software Development and Software Maintenance



OFFICE OF THE SECRETARY OF DEFENSE
1800 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-1800

JAN -9 2017

COST ASSESSMENT AND PROGRAM EVALUATION

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (ACQUISITION, TECHNOLOGY, AND LOGISTICS)
ASSISTANT SECRETARY OF THE ARMY (ACQUISITION, LOGISTICS AND TECHNOLOGY)
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE NAVY (RESEARCH, DEVELOPMENT AND ACQUISITION)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT AND COMPTROLLER)
ASSISTANT SECRETARY OF THE AIR FORCE (ACQUISITION)
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: DoD Cost Analysis Data Improvement

Reliable and comprehensive cost data is essential to produce credible cost estimates as required in both statute and regulation. CAPE, in collaboration with Army, Navy and Air Force cost centers, has strategically planned and implemented updates to improve cost data collection in DoD. Our goals with the updates are to: improve data collection; improve analyst productivity and quality of cost estimates; close data gaps; and provide the cost, acquisition, and resource allocation organizations with data required for better analysis and decision making. The key lines of effort in this cross-community plan include the following updates to current DoD policies:

- Cost Analysis Requirements Description (CARD)
- Standard Data Plans
- Software Resources Data Report (SRDR)
- Contractor Cost Data Report (CCDR) for Sustainment
- Knowledge Sharing and Data Storage
- Data Collection on Government-Performed Efforts
- Data Collection on Indefinite Delivery/Indefinite Quantity (IDIQ) Contracts
- Strategic Co-Planning

Each update, its corresponding policy or guidance, and points of contact can be found at http://cade.osd.mil/. A summary of these initiatives is provided in the attachment to this memorandum. Together these updates will greatly improve the ability of the DoD cost analysis community to support acquisition and resourcing organizations in the Department.

Jamie M. Morin
Director

Attachment: As stated

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Misconception #4

Indefinite Delivery/Indefinite Quantity (IDIQ) or Basic Ordering Agreement (BOA) Contracts only Report on Delivery Orders above $50M

- This approach led to significant underreporting
- CSDR must capture the entire contract value, including all Delivery Orders and Task Orders
- Separate submission event (cost report) for each Delivery Order or Task Order
- Policy clarification included in Dr. Morin memo

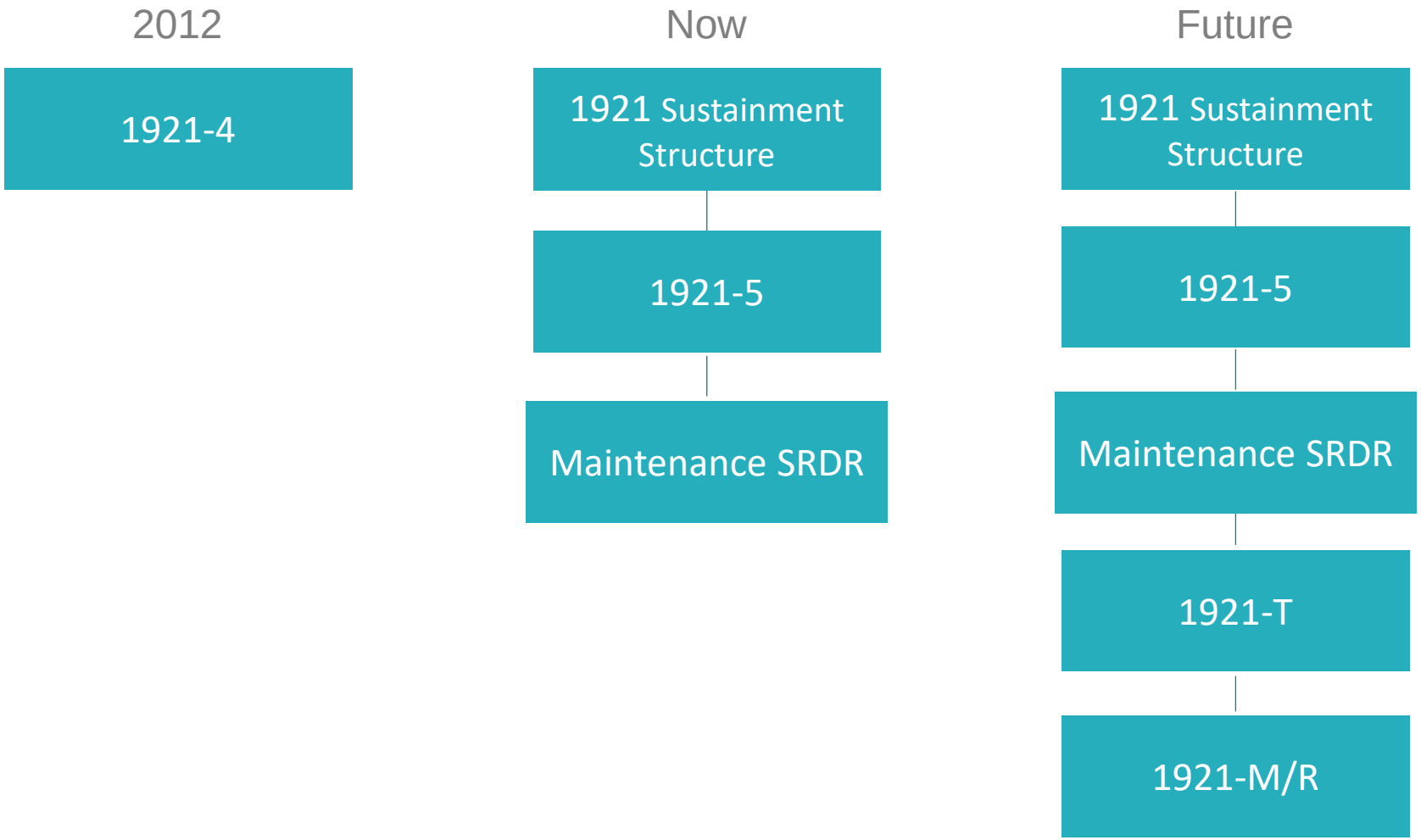
Misconception #5

Software Maintenance doesn't need Software Report

- Dr. Morin memo also implemented NEW Software Resource and Data Report (SRDR) forms
- SRDR was previously based on contractor format
- New formats standardize software reporting and validation
  - DD Form 3026-1 Software Development SRDR
  - DD Form 3026-2 Software Maintenance SRDR
- Software Maintenance SRDR applies to any contract with more than $1M software maintenance per year

Sustainment Reporting

Sustainment Cost Collection Formats



Background: DD Form 1921-4

- DD Form 1921-4 was approved April 2012
- Corresponding data item description (DID), DI-FNCL-81831, was approved May 2012
- Implementing DD Form 1921-4 revealed the following:
  - Little to no visibility into
    - Labor hours and dollars
    - Overhead
    - Material dollars
    - Units
    - Profit/Loss or Fee
  - To collect desired data, CSDR plans implementing DD Form 1921-4 require many clarifying remarks
    - Adds complexity to data preparation and validation
    - Results in non-standard data reporting across programs and contracts
    - Adding children or summary elements requires modification of DD Form 1921-4

1921 with Sustainment Reporting Structure

- Collect sustainment costs using DD Form 1921
  - Use Sustainment reporting structure from DD Form 1921-4 as basis for CSDR reporting structure
    - Add children to reporting structure where lower level detail is desired
    - Roll up reporting structure if lower-level detail is not applicable and/or not needed
  - Includes summary elements (G&A, UB, MR, FCCM, and Profit/Loss or Fee)
  - Maintains consistency across programs and contracts
  - Conforms to existing business processes and software
- Collect functional data via a sustainment-specific 1921-5
  - Not all 1921-1 functional categories (e.g., manufacturing) apply to sustainment efforts
  - 1921-5 captures functions that span across O&S activities

1921 with Sustainment Reporting Structure

- Obtain contract-specific definitions of effort against reporting structure via CWBS dictionary
- Reports required for each FY of appropriation
- Report Pairs:
  - Acquisition = 1921 with MIL-STD 881C WBS, 1921-1.
  - Sustainment = 1921 with sustainment reporting structure, 1921-5.

Sustainment Reporting Structure (page 1)

- Maintenance
  - Consumables and Repair Parts
  - Depot Level Repairables

COST AND SOFTWARE DATA REPORTING/EARNED VALUE MANAGEMENT CO-PLAN

Form Approved OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.
PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ORGANIZATION.

1. MAJOR PROGRAM	a. NAME:	Sustainment WBS Template			
b. PHASE/MILESTONE		c. PRIME MISSION PRODUCT	2. WBS SYSTEM TYPE	3. SUBMISSION TYPE	4. CURRENT SUBMISSION DATE (YYYYMMDD) / 5. LAST APPROVED PLAN DATE (YYYYMMDD)
☐ Pre-A ☐ A	☐ B ☐ C-LRIP	☐ C-FRP ☒ O&S	Sustainment	☐ INITIAL ☐ CHANGE	

6a. POINT OF CONTACT (POC) NAME AND ADDRESS (Include ZIP Code)	6b. TELEPHONE NUMBER (Include Area Code)	6c. FAX NUMBER (Include Area Code)	6d. E-MAIL ADDRESS

7. PLAN TYPE	8. PREPARING ORGANIZATION	9a. CONTRACTOR NAME/ADDRESS	9b. CONTRACT NUMBER	9c. APPROPRIATION	10. APPROVED PLAN NUMBER
☐ PROGRAM ☒ CONTRACT (PRIME) ☐ CONTRACT (SUB)		i. PERFORMING ORGANIZATION: TBD; ii. DIVISION		☐ RDT&E ☐ PROCUREMENT ☒ O&M	

11. WBS ELEMENT CODE		12. WBS REPORTING ELEMENTS	13. REPORTS REQUIRED (X if applicable)	DD 1921-3 (CBDR): ☒	DD 1921-1 / 1921-5 EAC: ☒	EVM Reporting: ☐					
				CCDR							
a. PROGRAM/ CONTRACT/ SUBCONTRACT	b. CONTRACT/ SUBCONTRACT		a. CWBS DICTIONARY	b. DD 1921 (CDSR)	c. DD 1921-1 (FCHR)	d. DD 1921-2 (PCR)	e. DD 1921-5 (SFCHR)	f. EAC	g. SRDR FORMATS	h. IPMR FORMAT 1
1.0	1.0	Sustainment Effort	X	X			X	X	X	X
1.1	1.1	Unit-Level Manpower (System Level Cost Only)	X	X			X	X		X
1.1.1	1.1.1	Operations Manpower	X	X						
1.1.2	1.1.2	Unit-Level Maintenance Manpower	X	X						
1.1.3	1.1.3	Other Unit-Level Manpower (Specify In Remarks)	X	X						
1.2	1.2	Unit Operations (System Level Cost Only)	X	X			X	X		X
1.2.1	1.2.1	Operating Material	X	X						
1.2.1.1	1.2.1.1	Energy	X	X						
1.2.1.1.1	1.2.1.1.1	Fuel	X	X						
1.2.1.1.2	1.2.1.1.2	Petroleum, Oil and Lubricants (POL)	X	X						
1.2.1.1.3	1.2.1.1.3	Electricity	X	X						
1.2.1.2	1.2.1.2	Training Munitions/Expendable Stores	X	X						
1.2.1.2.1	1.2.1.2.1	Ammunition	X	X						
1.2.1.2.2	1.2.1.2.2	Bombs	X	X						
1.2.1.2.3	1.2.1.2.3	Rockets	X	X						
1.2.1.2.4	1.2.1.2.4	Training Missiles	X	X						
1.2.1.2.5	1.2.1.2.5	Sonobuoys	X	X						
1.2.1.2.6	1.2.1.2.6	Pyrotechnics	X	X						
1.2.1.2.7	1.2.1.2.7	Other Munitions	X	X						
1.2.1.3	1.2.1.3	Other Operating Material (Specify in Remarks)	X	X						
1.2.2	1.2.2	Support Services (Including Non-Maintenance FSRs)	X	X			X			
1.2.2.1	1.2.2.1	Non-Maintenance Field Service Reps	X	X						
1.2.2.2	1.2.2.2	Communication Services	X	X						
1.2.2.3	1.2.2.3	Facility/Storage Services	X	X						
1.2.2.4	1.2.2.4	Transportation Services	X	X						
1.2.2.5	1.2.2.5	Other Support Services	X	X						
1.2.3	1.2.3	Temporary Duty	X	X						
1.3	1.3	Maintenance	X	X			X	X		X
1.3.1	1.3.1	Consumables and Repair Parts	X	X			X			
1.3.1.1	1.3.1.1	Airframe/Hull/Vehicle Consumables and Repair Parts	X	X			X			
1.3.1.2	1.3.1.2	Propulsion Consumables and Repair Parts	X	X			X			
1.3.1.3	1.3.1.3	Electronics/Avionics Consumables and Repair Parts	X	X			X			
1.3.1.4	1.3.1.4	Other Major Subsystem Consumables and Repair Parts 1..n (Specify)	X	X			X			
1.3.1.5	1.3.1.5	Other Consumables and Repair Parts	X	X			X			
1.3.2	1.3.2	Depot Level Reparables (DLRs) / Repair of Reparables (RORs)	X	X			X			
1.3.2.1	1.3.2.1	Airframe/Hull/Vehicle DLRs	X	X			X			
1.3.2.2	1.3.2.2	Propulsion DLRs	X	X			X			
1.3.2.3	1.3.2.3	Electronics/Avionics DLRs	X	X			X			
1.3.2.4	1.3.2.4	Other Major Subsystems DLRs 1..n (Specify)	X	X			X			
1.3.2.5	1.3.2.5	Other DLRs	X	X			X			
1.3.3	1.3.3	Intermediate Maintenance	X	X			X			
1.3.3.1	1.3.3.1	Intermediate Maintenance Consumable Materials and Repair Parts	X	X			X			
1.3.3.2	1.3.3.2	Intermediate-Level Government Maintenance	X	X			X			
1.3.3.3	1.3.3.3	Intermediate-Level Contractor Maintenance	X	X			X			
1.3.3.4	1.3.3.4	Other Intermediate-Level Maintenance	X	X			X			

DD FORM 2794, AUGUST 2015 — PREVIOUS EDITION IS OBSOLETE

Sustainment Reporting Structure (page 2)

Depot Maintenance
- Scheduled Overhaul
- Unscheduled Overhaul

Other Maintenance

11. WBS ELEMENT CODE		12. WBS REPORTING ELEMENTS	13. REPORTS REQUIRED (X if applicable)	DD 1921-3 (CBDR): X	DD 1921-1 / 1921-5 EAC: X			EVM Reporting:		
				CCDR						
a. PROGRAM/ CONTRACT/ SUBCONTRACT	b. CONTRACT/ SUBCONTRACT		a. CWBS DICTIONARY	b. DD 1921 (CDSR)	c. DD 1921-1 (FCHR)	d. DD 1921-2 (PCR)	e. DD 1921-5 (SFCHR)	f. EAC	g. SRDR FORMATS	h. IPMR FORMAT 1
1.3.4	1.3.4	Depot Maintenance	X	X			X			
1.3.4.1	1.3.4.1	Scheduled Overhaul	X	X			X			
1.3.4.1.1	1.3.4.1.1	Airframe/Hull/Vehicle Scheduled Overhaul	X	X			X			
1.3.4.1.2	1.3.4.1.2	Propulsion Scheduled Overhaul	X	X			X			
1.3.4.1.3	1.3.4.1.3	Electronics/Avionics Scheduled Overhaul	X	X			X			
1.3.4.1.4	1.3.4.1.4	Other Major Subsystems Scheduled Overhaul 1..n (Specify)	X	X			X			
1.3.4.1.5	1.3.4.1.5	Other Scheduled Overhaul	X	X			X			
1.3.4.2	1.3.4.2	Unscheduled Overhaul	X	X			X			
1.3.4.2.1	1.3.4.2.1	Airframe/Hull/Vehicle Unscheduled Overhaul	X	X			X			
1.3.4.2.2	1.3.4.2.2	Propulsion Unscheduled Overhaul	X	X			X			
1.3.4.2.3	1.3.4.2.3	Electronics/Avionics Unscheduled Overhaul	X	X			X			
1.3.4.2.4	1.3.4.2.4	Other Major Subsystems Unscheduled Overhaul 1..n (Specify)	X	X			X			
1.3.4.2.5	1.3.4.2.5	Other Unscheduled Unscheduled Overhaul	X	X			X			
1.3.5	1.3.5	Other Maintenance	X	X			X			
1.3.6	1.3.6	Packing, Handling, Shipping and Transportation	X	X						
1.4	1.4	Sustaining Support (System Level Cost Only)	X	X			X	X		X
1.4.1	1.4.1	System Specific Training	X	X			X			
1.4.2	1.4.2	Support Equipment Replacement and Repair	X	X			X			
1.4.3	1.4.3	Sustaining/Systems Engineering	X	X			X		X	
1.4.4	1.4.4	Program Management	X	X			X		X	
1.4.5	1.4.5	Information Systems	X	X			X			
1.4.6	1.4.6	Data and Technical Publications	X	X			X			
1.4.7	1.4.7	Simulator/Training Device Operations and Repair	X	X			X			
1.4.8	1.4.8	Other Sustaining Support (Specify in Remarks)	X	X			X			
1.5	1.5	Continuing System Improvements	X	X			X	X		X
1.6	1.6	Installation and Personnel Support (System Level Only)	X	X			X	X		X
		Subtotal Cost		X						
		Reporting Contractor G&A		X						
		Reporting Contractor Undistributed Budget		X						
		Reporting Contractor Management Reserve		X						
		Reporting Contractor FCCM		X						
		Total Cost		X						
		Reporting Contractor Profit/Loss or Fee		X						
		Total Price		X						

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Submission Event Table and Remarks

14. CSDR SUBMISSION DATES

a. SUBMISSION	b. FORM(S)	c. EVENT	d. REPORT TYPE	e. AS OF DATE (YYYYMMDD)	f. DUE DATE (YYYYMMDD)
1	CWBS Dictionary	Contract Award (plus 12 months)	Initial	20170930	20171130
2	1921, 1921-5	Contract Award (plus 12 months)	Interim	20170930	20171130
3	SRDR Maintenance	Contract Award (Initial Estimate - Total Contract)	Initial	20170930	20171130
4	1921, 1921-5	Annual Report - Year 1...n (Gov. FY for USN)	Interim	20180930	20181130
5	SRDR Maintenance	Contract Completion	Final	20190930	20191130
6	CWBS Dictionary	Contract Completion	Final	20190930	20191130
7	1921, 1921-5	Contract Completion	Final	20190930	20191130

15. REMARKS

NON-RECURRING/RECURRING DEFINITIONS

The contractor will utilize the specific definitions to segregate recurring and non-recurring costs based on Attachment A to C4I DD Form 2794 instructions. The contractor will refer to specific instructions in the Software Resources Data Reporting (SRDR) Software Development (DI-MGMT-XXXX) and Software Maintenance DIDs (DI-MGMT-XXXX) to separately report Software specific SE/PM and other common elements in the WBS/CRS. The contractor will submit CCDRs and SRDRs simultaneously in every specified submission event stated in DD Form 2794

COST ACCOUNTING STANDARDS (CAS) DISCLOSURE STATEMENT DIFFERENCES : Describe significant accounting changes from previous accounting period in the Remarks section of the reports, if applicable.

3. DD Form 1921-3 Contractor Business Data Report:
a. The Contractor Business Data Report is prepared by and for the business entity (e.g., business unit, segment, or site) responsible for submitting the Forward Pricing Rate Proposal (FPRP) representing the basis for Forward Pricing Rate Agreement (FPRA) negotiations with the government.
b. Reports are submitted annually at the end of the contractor's fiscal year.
c. Data for Future Years should be reflective of the number of years contained in the most current document, i.e., the FPRP or the FPRA. If the document applies to more than three future years, attach additional future year sheets as required. In the absence of these documents, estimates should be provided for three future years.

4. Final Cost Report to be submitted when final end item has been delivered and accepted by the government (e.g., as evidenced by a completed DD 250) and 95% or more of total contract costs have been incurred.

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Additional Remarks for Sustainment Contracts

- Contractor shall provide the following Quantity information in the Remarks section of the 1921 and 1921-5: number of systems supported by this contract, and number of repairs performed. The Contractor must state the nominal capacity planned for each Delivery Order (e.g., the # of repairs, # of overhauls, # of flight hours, etc.) identified in the plan. This requirement is intended to capture what services are being bought with each effort.

- In each cost element, contractor will provide the number of items associated with that cost element in Column C of the 1921 Cost Report. For example, for 1.1 Manpower the quantity would be # of person-years; for 1.3.1 # of overhauls, for 1.3.2 # of DLRs, for 1.3.3 # of parts, 1.4.1 # of students etc.

- For Element 1.6 Installation Support, the quantity listed in Column C of the 1921 Cost Report should reflect the number of sites/bases/installations

- PBL – Contractor shall provide the performance metrics on contract (availability, reliability, flying hours, steaming hours, turnaround time, parts order time etc.) as well as reporting the actual metrics achieved.

When 1921-T and 1921-M/R are Implemented, these footnotes will no longer be needed

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Sustainment Functional Cost Hour Report (1921-5)

- 1921-1 Functional Cost-Hour Report categories are based on manufacturing environment
  - Not well suited for sustainment contracts
- CAPE developed 1921-5 Sustainment Functional Cost-Hour Report categories more suitable for sustainment contracts
  - Manufacturing Labor replaced by Maintenance Labor

1921-1 to 1921-5 Comparison

1921-1 Format		1921-5 Format
ENGINEERING		**ENGINEERING**
(1) DIRECT ENGINEERING LABOR HOURS		(1) DIRECT ENGINEERING LABOR HOURS
(2) DIRECT ENGINEERING LABOR DOLLARS		(2) DIRECT ENGINEERING LABOR DOLLARS
(3) ENGINEERING OVERHEAD DOLLARS		(3) ENGINEERING OVERHEAD DOLLARS
(4) TOTAL ENGINEERING DOLLARS		(4) TOTAL ENGINEERING DOLLARS
MANUFACTURING OPERATIONS		**PROGRAM MANAGEMENT**
(5) DIRECT TOOLING LABOR HOURS		(5) DIRECT PROGRAM MANAGEMENT LABOR HOURS
(6) DIRECT TOOLING LABOR DOLLARS		(6) DIRECT PROGRAM MANAGEMENT LABOR DOLLARS
(7) DIRECT TOOLING & EQUIPMENT DOLLARS		(7) PROGRAM MANAGEMENT OVERHEAD DOLLARS
(8) DIRECT QUALITY CONTROL LABOR HOURS		(8) TOTAL PROGRAM MANAGEMENT DOLLARS
(9) DIRECT QUALITY CONTROL LABOR DOLLARS		**MAINTENANCE OPERATIONS**
(10) DIRECT MANUFACTURING LABOR HOURS		(9) TOUCH MAINTENANCE LABOR HOURS
(11) DIRECT MANUFACTURING LABOR DOLLARS		(10) TOUCH MAINTENANCE LABOR DOLLARS
(12) MANUFACTURING OPERATIONS OVERHEAD DOLLARS		(11)TOUCH MAINTENANCE OVERHEAD DOLLARS
(13) TOTAL MANUFACTURING OPERATIONS DOLLARS		(12) SUPPORT MAINTENANCE LABOR HOURS
		(13) SUPPORT MAINTENANCE LABOR DOLLARS
		(14) SUPPORT MAINTENANCE OVERHEAD DOLLARS
		(15) TOTAL MAINTENANCE OPERATIONS DOLLARS
MATERIALS		**MATERIALS**
(14) RAW MATERIAL DOLLARS		(16) RAW MATERIAL DOLLARS
(15) PURCHASED PARTS DOLLARS		(17) PURCHASED PARTS DOLLARS
(16) PURCHASED EQUIPMENT DOLLARS		(18) PURCHASED EQUIPMENT DOLLARS
(17) MATERIAL HANDLING OVERHEAD DOLLARS		(19) MATERIAL HANDLING OVERHEAD DOLLARS
(18) TOTAL DIRECT-REPORTING SUBCONTRACTOR DOLLARS		(20) TOTAL DIRECT-REPORTING SUBCONTRACTOR DOLLARS
(19) TOTAL MATERIAL DOLLARS		(21) TOTAL MATERIAL DOLLARS
OTHER COSTS		**OTHER COSTS**
(20) OTHER COSTS NOT SHOWN ELSEWHERE *(Specify in Remarks)*		(22) OTHER COSTS NOT SHOWN ELSEWHERE *(Specify in Remarks)*
SUMMARY		**SUMMARY**
(21) TOTAL COST *(Direct and Overhead)*		(23) TOTAL COST *(Direct and Overhead)*

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1921-5 Data Report

SECURITY CLASSIFICATION: Unclassified

SUSTAINMENT FUNCTIONAL COST-HOUR REPORT

Form Approved OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 16 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE ABOVE ORGANIZATION.**

1. MAJOR PROGRAM a. NAME: b. PHASE/MILESTONE ☐ Pre-A ☐ B ☐ C-FRP ☐ A ☐ C-LRIP ☐ O&S	**2. PRIME MISSION**	**3. REPORTING ORGANIZATION TYPE** ☐ PRIME / ASSOCIATE CONTRACTOR ☐ DIRECT-REPORTING SUBCONTRACTOR ☐ GOVERNMENT	**4. NAME/ADDRESS** (Include Zip Code) a. PERFORMING ORGANIZATION b. DIVISION	**5. APPROVED**
6. CUSTOMER (Direct-Reporting Subcontractor Use Only)		**7. TYPE ACTION** a. CONTRACT NO.: b. LATEST MODIFICATION c. SOLICITATION NO.: d. NAME: e. TASK ORDER/DELIVERY ORDER/LOT NO.:		
8. PERIOD OF PERFORMANCE a. START DATE (YYYYMMDD): b. END DATE (YYYYMMDD):		**9. REPORT CYCLE** ☐ INITIAL ☐ INTERIM ☐ FINAL	**10. SUBMISSION NUMBER**	**11. RESUBMISSION NUMBER** / **12. REPORT AS OF** (YYYYMMD
13. NAME (Last, First, Middle Initial)	**14. DEPARTMENT**	**15. TELEPHONE NO.** (Include Area Code)	**16. EMAIL ADDRESS**	**17. DATE PREPARED** (YYYYMM
18. WBS ELEMENT CODE	**19. WBS REPORTING ELEMENT**	**20. NUMBER OF UNITS** a. TO DATE b. AT COMPLETION	**21. APPROPRIATION** ☐ RDT&E ☐ PROCUREMENT ☐ O&M	

SUSTAINMENT FUNCTIONAL DATA ELEMENTS	COSTS AND HOURS INCURRED TO DATE (thousands of U.S. Dollars or thousands of hours)			COSTS AND HOURS INCURRED AT COMPLETION (thousands of U.S. Dollars or thousands of hours)		
	A. NONRECURRING	B. RECURRING	C. TOTAL	D. NONRECURRING	E. RECURRING	F. TOTAL
ENGINEERING						
(1) DIRECT ENGINEERING LABOR HOURS						
(2) DIRECT ENGINEERING LABOR DOLLARS						
(3) ENGINEERING OVERHEAD DOLLARS						
(4) TOTAL ENGINEERING DOLLARS						
PROGRAM MANAGEMENT						
(5) DIRECT PROGRAM MANAGEMENT LABOR HOURS						
(6) DIRECT PROGRAM MANAGEMENT LABOR DOLLARS						
(7) PROGRAM MANAGEMENT OVERHEAD DOLLARS						
(8) TOTAL PROGRAM MANAGMENT DOLLARS						
MAINTENANCE OPERATIONS						
(9) TOUCH MAINTENANCE LABOR HOURS						
(10) TOUCH MAINTENANCE LABOR DOLLARS						
(11) TOUCH MAINTENANCE OVERHEAD DOLLARS						
(12) SUPPORT MAINTENANCE LABOR HOURS						
(13) SUPPORT MAINTENANCE LABOR DOLLARS						
(14) SUPPORT MAINTENANCE OVERHEAD DOLLARS						
(15) TOTAL MAINTENANCE OPERATIONS DOLLARS						
MATERIALS						
(16) RAW MATERIAL DOLLARS						
(17) PURCHASED PARTS DOLLARS						
(18) PURCHASED EQUIPMENT DOLLARS						
(19) MATERIAL HANDLING/OVERHEAD DOLLARS						
(20) TOTAL DIRECT-REPORTING SUBCONTRACTOR DOLLARS						
(21) TOTAL MATERIAL DOLLARS						
OTHER COSTS						
(22) OTHER COSTS NOT SHOWN ELSEWHERE *(Specify in Remarks)*						
SUMMARY						
(23) TOTAL COST *(Direct and Overhead)*						

22. REMARKS

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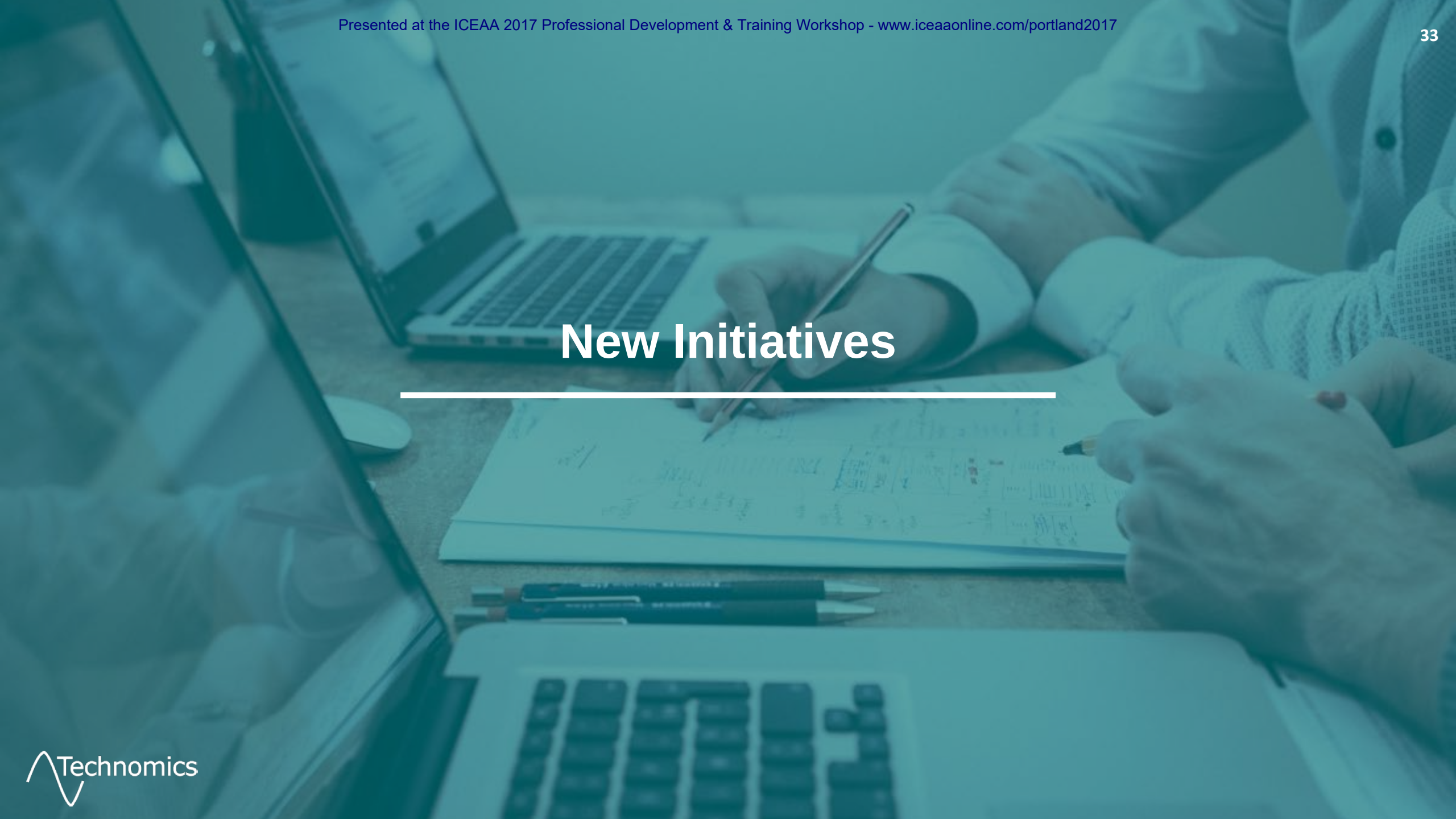

New Initiatives

1921-T Technical Data Report

COST, SOFTWARE & TECHNICAL DATA REPORTING/EARNED VALUE MANAGEMENT CO-PLAN

The public reporting burden for this collection of information is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.
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TECHNICAL DATA ITEM TYPES

1. WBS ELEMENT CODE	2. WBS ELEMENT NAME	3. ITEM TYPE
1.0	Sustainment Effort	Sustainment / Readiness
1.1	Unit-Level Manpower (System Level Cost Only)	
1.1.1	Operations Manpower	Manpower
1.1.2	Unit-Level Maintenance Manpower	Manpower
1.1.3	Other Unit-Level Manpower (Specify In Remarks)	Manpower
1.2	Unit Operations (System Level Cost Only)	
1.2.1	Operating Material	
1.2.1.1	Energy	Energy
1.2.1.1.1	Fuel	
1.2.1.1.2	Petroleum, Oil and Lubricants (POL)	
1.2.1.1.3	Electricity	
1.2.1.2	Training Munitions/Expendable Stores	Training Expendables
1.3	Maintenance	Maintenance
1.3.1	Consumables and Repair Parts	Maintenance
1.3.1.1	Airframe/Hull/Vehicle Consumables and Repair Parts	
1.3.1.2	Propulsion Consumables and Repair Parts	
1.3.1.3	Electronics/Avionics Consumables and Repair Parts	
1.3.1.4	Other Major Subsystem Consumables and Repair Parts 1..n (Specify)	
1.3.1.5	Other Consumables and Repair Parts	
1.3.2	Depot Level Reparables (DLRs) / Repair of Reparables (RORs)	Maintenance
1.3.2.1	Airframe/Hull/Vehicle DLRs	
1.3.2.2	Propulsion DLRs	
1.3.2.3	Electronics/Avionics DLRs	
1.3.2.4	Other Major Subsystems DLRs 1..n (Specify)	
1.3.2.5	Other DLRs	

TECHNICAL PARAMETER REQUIREMENTS

1. ITEM TYPE	2. TECHNICAL PARAMETE a. PARAMETER NAME	b. UNIT OF MEASURE
Maintenance	Customer Wait Time (CWT)	Hours
Maintenance	Useable Parts Delivered	Percentage
Maintenance	MTBF - Contracted Target	Hours
Maintenance	MTBF - Actual	Hours
Maintenance	MTTR - Contracted Target	Hours
Maintenance	MTTR - Actual	Hours
Maintenance	Number of Consumable Parts Used	Quantity
Maintenance	Number of DLRs Replaced	Quantity
Maintenance	Number of Failures - Design Controllable	Quantity
Maintenance	Number of Failures - Induced	Quantity
Maintenance	Number of Repair Actions	Quantity

Cost CDRLs are more useful when the cost drivers are identified. The 1921-T collects costs drivers for various sustainment efforts from industry

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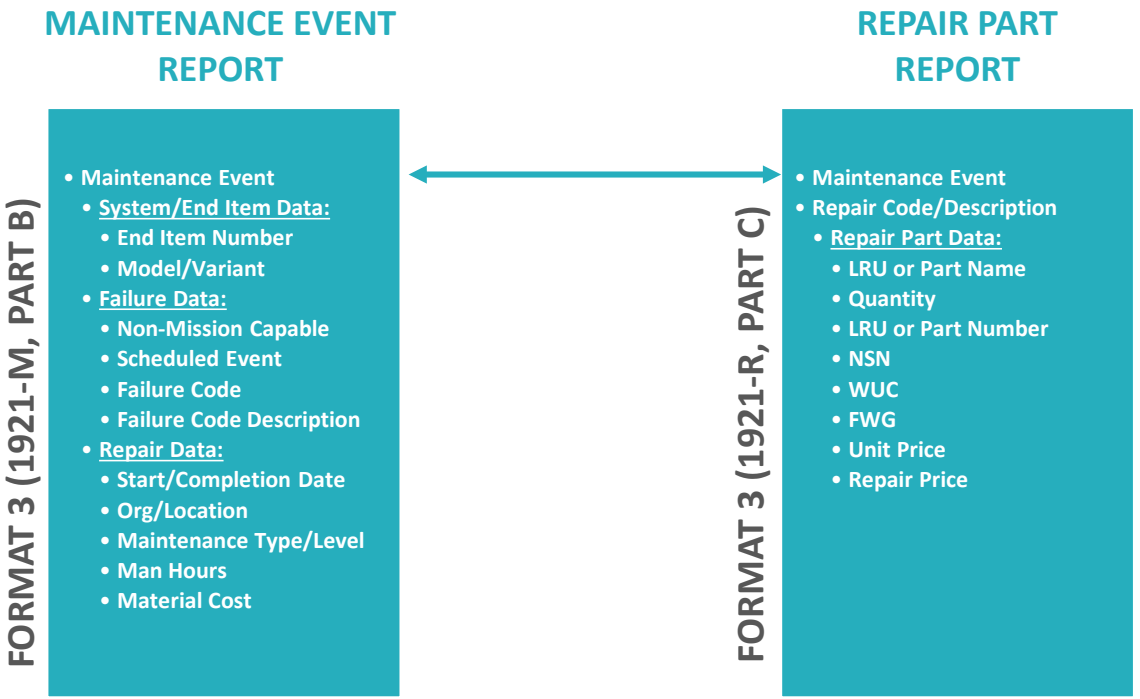
1921-MR Maintenance/Repair Report Description

Maintenance Event Data Report

Collects information related to each maintenance event such as the specific system being repaired, location where the repair activity occurred, reason for failure, day failure was identified and day repair activity was completed



Repair Part Data Report

Identifies the LRUs and/or repair parts associated with each maintenance event

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Note: PART A is METADATA

1921-M/R

MAINTENANCE EVENT REPORT

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MAINTENANCE EVENT DATA

MAINTENANCE EVENT NUMBER	SYSTEM/END ITEM DATA				FAILURE DATA				REPAIR DATA						COMMENTS
	SYSTEM/END ITEM or DLR NIIN	SYSTEM/END ITEM SERIAL NUMBER	MODEL	VARIANT	NON-MISSION CAPABLE	SCHEDULED EVENT	FAILURE CODE	FAILURE CODE DESCRIPTION	START DATE	COMPLETION DATE	REPAIR ORG/LOCATION	MAINTENANCE EVENT TYPE	MAINTENANCE LEVEL	MAN-HOURS	
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
0001	432	12345	Helo	Attack	Y	N	7A	020 Worn Excessively	4/9/16	4/9/16		Unscheduled	Depot	12	
0002	4325	100012	Helo	Attack	N	N	R45	020 Worn Excessively	4/9/16	4/17/16		DLR Repair	Depot	2	DLR repaired and returned to inventory

REPAIR PART REPORT

The public reporting burden for this collection of information is estimated to average 8 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Executive Services Directorate, Information Management Division, 4800 Mark Center Drive, Alexandria VA 22350-3100 (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.
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MAINTENANCE EVENT NUMBER	REPAIR ACTION CODE	REPAIR ACTION DESCRIPTION	REPAIR PART DATA											COMMENTS
			REPAIR PART NAME	881C WBS	REPARABLE or CONSUMABLE	REPAIR PART QUANTITY	CONTRACTOR PART NUMBER	REPAIR PART NSN (OR NIIN)	REPAIR PART WUC/LCN	REPAIR PART FWG	REPLACEMENT COST	REPAIR COST		
A	B	C	D	E	F	G	H	I	J	K	L	M		N
0001	8881	Replace Main Blade 1	Main Blade 1		R	2	7000			19XL 199	$ 4,000	$ 350		
			Balance Shaft Cover		C	2	7001			19XL 199	$ 200			
			Balance Block		C	2	7002			19XL 199	$ 40			
			Flybar Rod		C	1	7003			19XL 199	$ 75			
			Flybar Joint		R	1	7004			19XL 199	$ 3,000	$ 250		
0002	8881A	Repair Flybar Joint	Flybar Joint		R (Y)	1	7004			19XL 199	$ 3,000	$ 250		DLR repaired and returned to inventory
			Replace pins		C	1	70236			19XL 199	$ 10			

The 1921-M/R is a CDRL to collect similar data that we get for organic maintenance efforts but from industry

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1921–T, Data Elements

Sustainment
Number of Combat Air Patrols (CAPs)
Number of Squadrons
System Use (OPTEMPO) by year
Total Number of Systems

Readiness
Availability (Ao)
Mission Capability
Affordability incentive for reducing maintenance costs
Monetary Incentive for meeting performance goal
Period of Performance or Option Award Incentive
Penalty for not meeting performance goal
Scheduled Price Renegotiation

Manpower
Maintainers Assigned - FTEs
Operators Assigned - FTEs
Other Unit-Level Personnel Assigned - FTEs

Energy
Energy Consumption

Training Expendables
Number of Training - Weapon Items Expended

Storage
Floor Space Utilized
Number of Storage/Maintenance Sites
Volume of Items Stored

Transportation
Transportation Quantity - Air
Transportation Quantity - Ground
Transportation Quantity - Sea

Maintenance
Customer Wait Time (CWT)
Useable Parts Delivered
MTBF - Contracted Target
MTBF - Actual
MTTR - Contracted Target
MTTR - Actual
Number of Consumable Parts Used
Number of DLRs Replaced
Number of Failures - Design Controllable
Number of Failures - Induced
Number of Repair Actions
Payment Frequency

Depot Maintenance
Scheduled Depot Events
Scheduled Maintenance Cycle
Unscheduled Depot Events

Maintenance Inspections
Visual Inspections, Surveillance

Hardware Modifications
Hardware Modification Cycle
Hardware Modification Events
Number of Hardware Modification - Kits Procured

Program Management
Program Management - FTEs

Sustaining Engineering
Systems Engineering - FTEs

Technical Data
Technical Data Number of Updates

Information Systems
Data Storage
IS Tech Refreshes
Number of Concurrent Users
Number of Sites
Number of Users
System Throughput

Support Equipment
Support Equipment Repair Actions
Support Equipment Unscheduled Failures
Support Equipment Updates

Simulators
Simulator Failures
Simulator Hardware Updates
Simulator Repairs
Simulator Sites
Simulator Software Updates
Simulator Training Hours
Simulator Units

System Training
Number of Students
Training Days
Training Events

Other Sustaining Support
Number of Firings, Aging Program
Number of Re-preservations

Software Support
Software Changes
Software Support - FTEs

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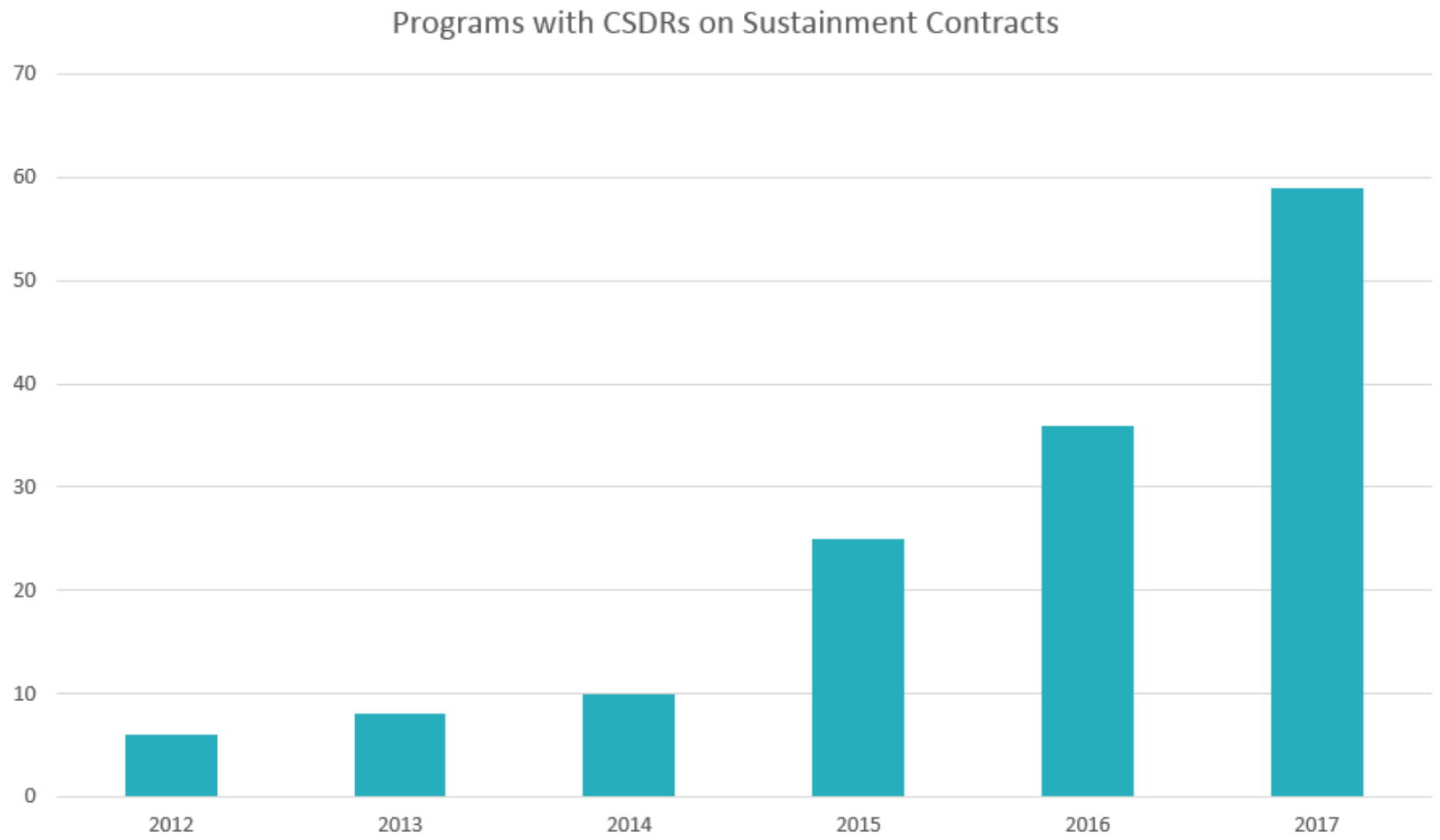
1921-M/R Definitions

Data Element	Data Type	Description
Maintenance Event Number	Identifier	Unique number identifying the maintenance event.
System/End Item or DLR NIIN	System Data	National Item Identification Number (NIIN) of the system or end item (i.e., aircraft, tank, ship, etc.). Also used for the DLR NIIN for depot work on DLRs (e.g., overhaul of engines, transmissions).
System/End Item Serial Number	System Data	The contractor issued serial number of the end item or system receiving maintenance.
Model	System Data	System or End Item model.
Variant	System Data	System or End Item variant, if applicable.
Non-Mission Capable	Failure Data	Indicates whether the fault caused the equipment to be Non-Mission Capable (Y) or Fully-Mission Capable (N).
Scheduled Event	Failure Data	Indicates whether the maintenance event was Scheduled (Y) or Unscheduled (N).
Failure Code	Failure Data	If Army, The Army's three (3) digit numeric failure code for the part. See DA Pamphlet 750-8, Table B-2 for a complete list of failure codes and their descriptions.
Failure Code Description	Failure Data	Brief description of the failure code. See DA Pamphlet 750-8, Table B-2 for a complete list of failure codes and their descriptions.
Start Date	Repair Data	Date when failure occurred.
Completion Date	Repair Data	Date when all related maintenance actions were completed.
Repair Org/Location	Repair Data	Organization and location where the repair activity occurred. Potentially identifiable using the CAGE code.
Maintenance Event Type	Repair Data	Type of maintenance event (e.g., Scheduled Maintenance, Unscheduled Maintenance, Engineering Change Order (ECO), Deprocessing, etc.).
Maintenance Level	Repair Data	Maintenance level related to where the repair work was performed.
Labor Hours	Repair Data	Total labor hours associated with the maintenance event.
Material Cost	Repair Data	Total material costs associated with the maintenance event.
Repair Action Code	Identifer	Unique code identifying the repair action.
Repair Action Description	Identifer	Description of the repair action.
Repair Part Name	Repair Part Data	Name of the LRU (Line Replaceable Unit), SRU (Shop Replaceable Unit) or part.
Reparable or Consumable	Repair Part Data	Indicate whether the part is a reparable "R" or consumable "C".
Repair Part Quantity	Repair Part Data	The quantity of same LRU, SRU or part required to complete the maintenance action.
Contractor Part Number	Repair Part Data	A number used to identify an item of production or a range of items of production by the manufacturer controlling the design, characteristics, and production of the item by means of its engineering drawings, specifications, and inspection requirements.
Repair Part NSN (or NIIN)	Repair Part Data	National Stock Number (NSN) preferred, or if unavailable, National Item Identification Number (NIIN)
Repair Part WUC	Repair Part Data	Work Unit Code (WUC) associated with LRU/Part.
Repair Part FWG	Repair Part Data	The Functional Working Group (FWG) identifies the particular system, subsystem, component, or assembly the item belongs to.
Repair Part Unit Price	Repair Part Data	The current unit price associated with the LRU, SRU or Part.
Repair Part Repair Price	Repair Part Data	The current repair price associated with the LRU, SRU or Part.

Sustainment Database Expansion



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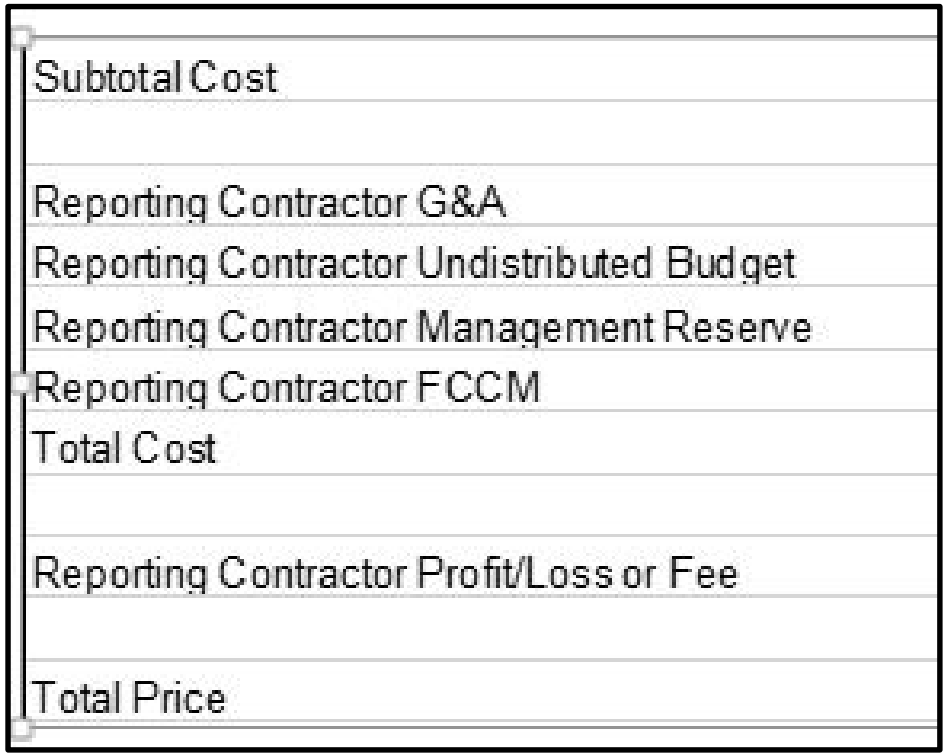
Misconception #6

"I Don't Use the Data"

- Data is Used For
  - Independent Cost Estimates for Milestone Reviews
  - Program Office Estimates
  - Life Cycle Cost Estimates Reliability and Maintainability Tracking
- For Firm Fixed Price contracts where there is no EVM data, CSDRs are the only source for actual costs
- The data is stored in a centralized, secure website that is accessible to all Government employees with a CAC card
- URL: http://cade.osd.mil/

Data Uses – Profit Analysis

- CSDRs include summary elements which show loading factors and profit/loss
- This data is required for prime contractors and direct reporting subcontractors
- CAPE recently demonstrated that some subcontractor profits were excessive based on CSDR data



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Data Uses - Negotiations Support

- Program Offices and Contracting Officers can use past CSDR data to assess contract bids
- 1921-5 provides hours by WBS element
- Information required by sustainment-specific remarks and by 1921-T and 1921-M/R can be used to compare maintenance effort from year to year

Data Uses – Other Analysis

- Analysis of Alternatives (AoA)
- Comparative analysis of different support strategies
- Business Case Analysis for Life-Cycle Sustainment Plan
- Business Case Analysis for Performance Based Logistics (PBL)
- CADE Database enables cross-platform and cross-program comparisons

Conclusion

- Analysis based on historical actuals is essential to effective program decisions
- CSDRs in CADE are a useful “one stop” source for contractor cost data

URL: http://cade.osd.mil/

CSDR Points of Contact

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  - sandra.b.enser.ctr@mail.mil
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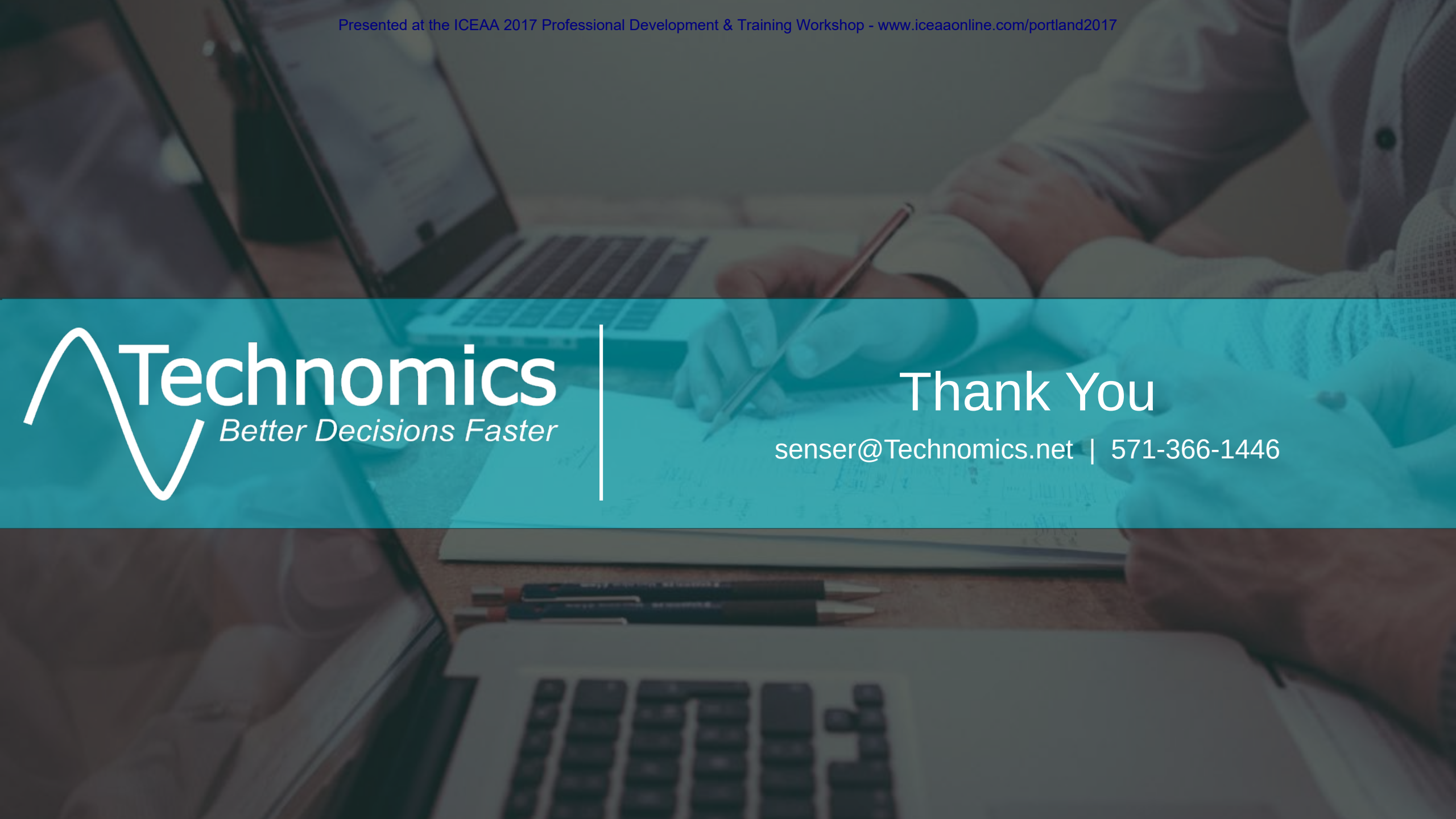

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Better Decisions Faster

Thank You

senser@Technomics.net | 571-366-1446

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