



TACOM

Lethality, Survivability, Mobility and
Sustainment for America's Army

Value Creation Workshop

Tank-Automotive & Armaments Command



Real World Lessons Learned

18 SEP 2003



Briefer: Edward Bohdanowicz

Tank-automotive & Armaments **COM**mand

TACOM's MISSION...

**Mobility, Lethality, Survivability for Soldiers
thru these technologies...**

– Ground Combat

– Automotive

– Marine

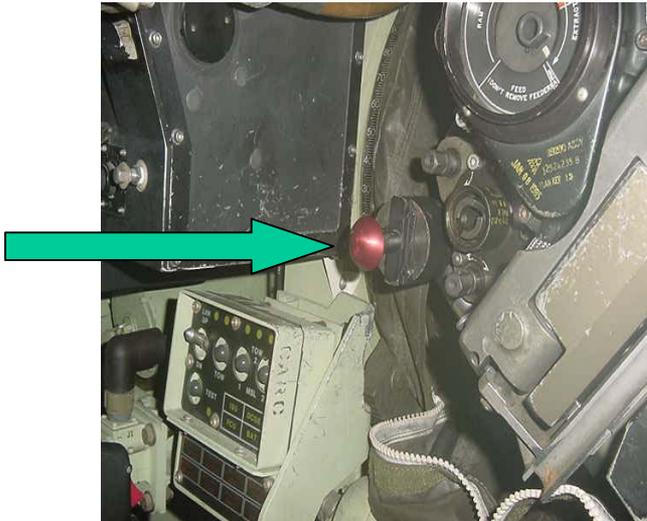
– Armaments

CASE STUDY...

(Two Types of VE Projects)

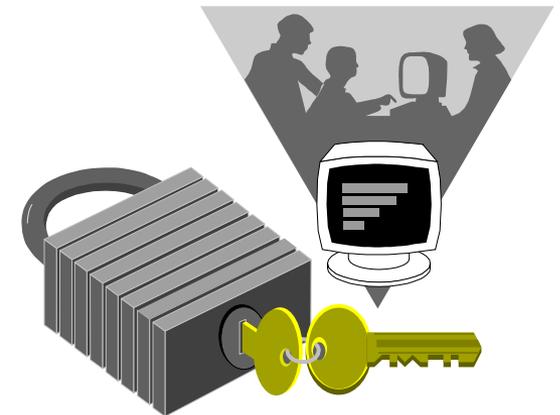
Hardware

- Bradley Fighting Veh
 - M242 Feed Select Solenoid
 - Knob shaft breakage
 - Vulnerable location

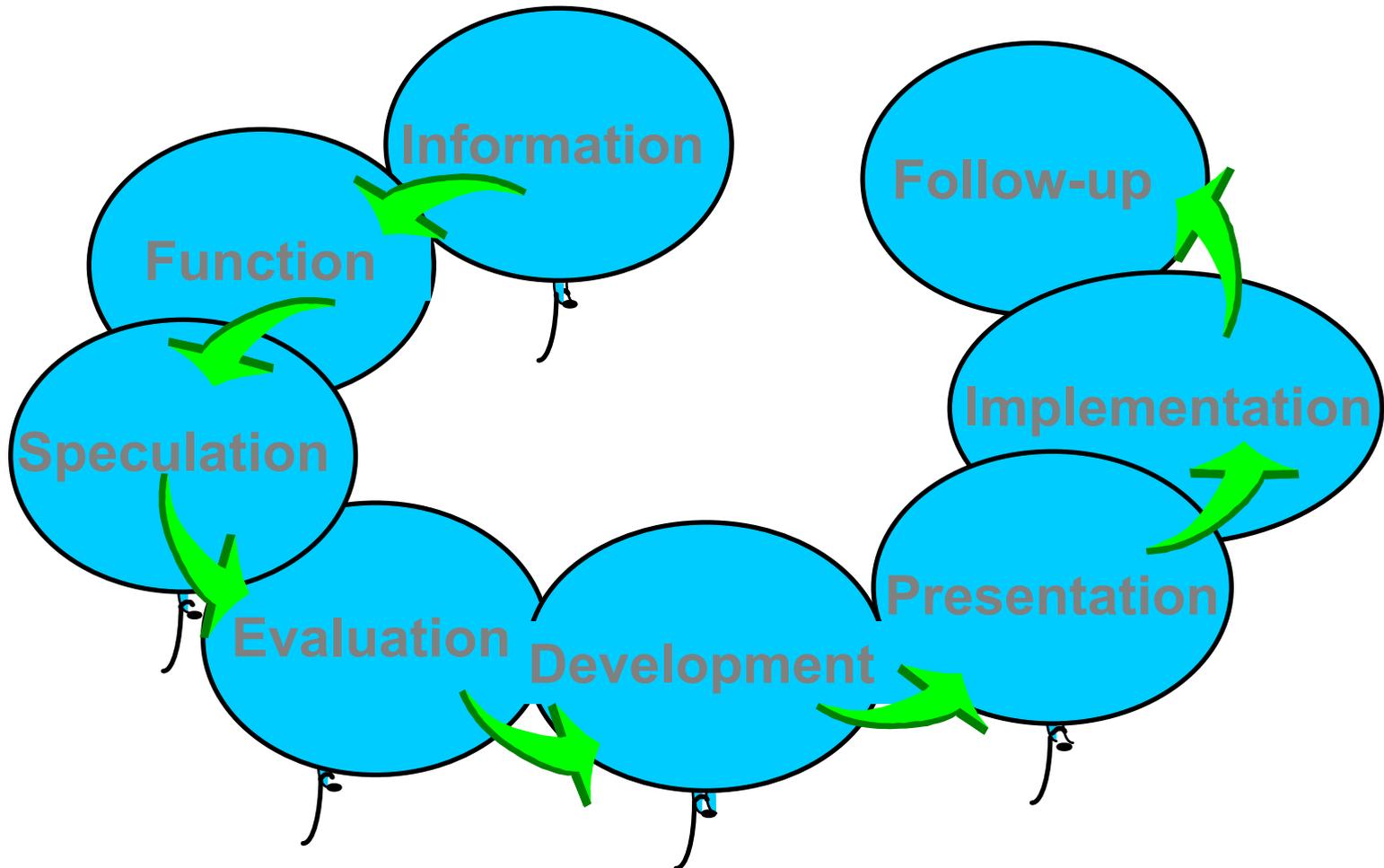


Admin Process

- LAN access procedure
 - Too many forms
 - Lengthy processing times
 - Multiple procedures
 - Inefficient work-flow



THE JOB PLAN IS THE “TRACK” TO STAY ON... “A Deliberate and Systematic Strategy”



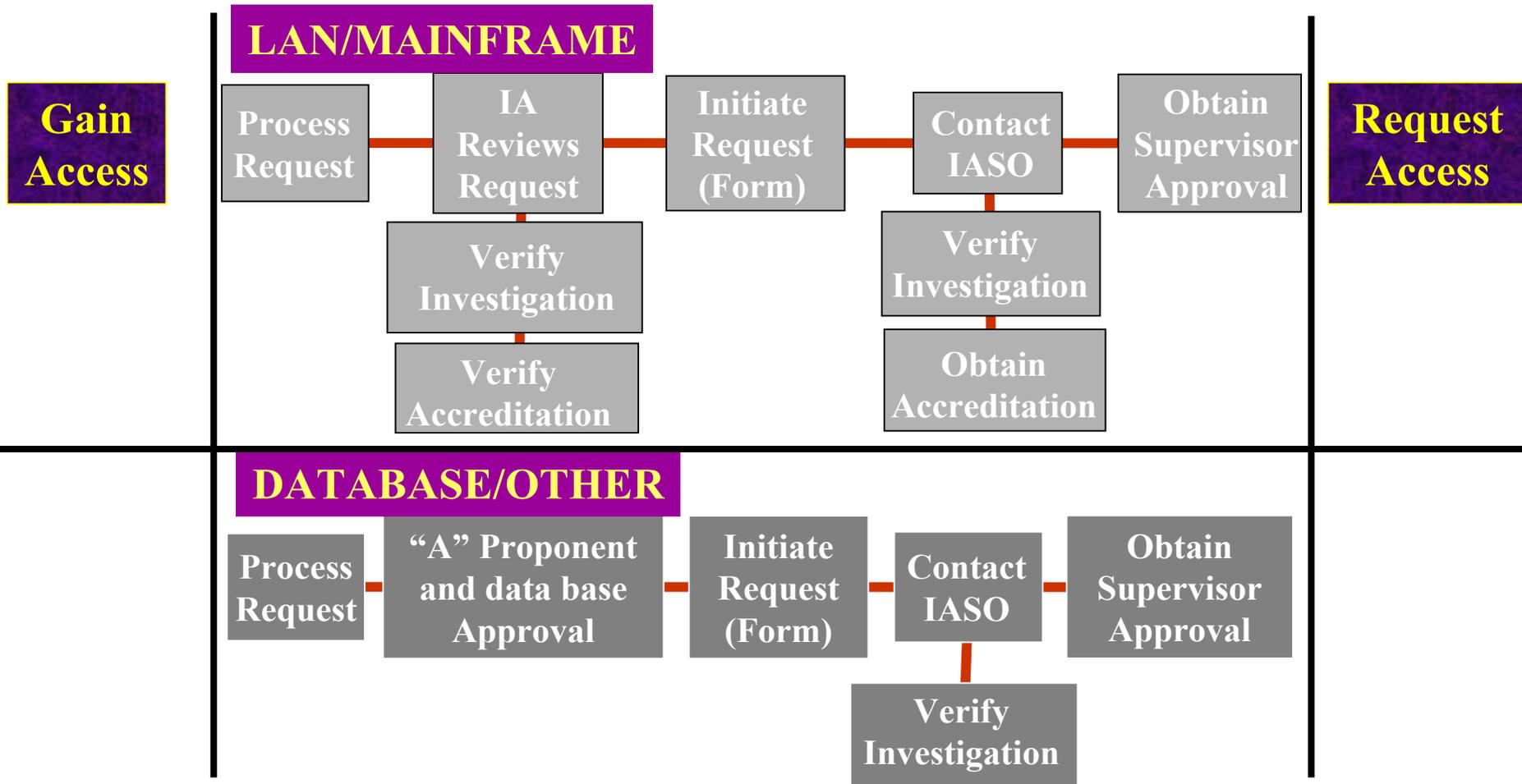
System Access – Prior to VE...

Function Analysis System Technique

(FAST)

HOW →

← **WHY**



Key Findings from F.A.S.T...

- **Research showed excessive duplication of forms.**
- **After consulting with IASO's, we found an exorbitant amount of down time for users waiting to get new accounts.**
- **After documenting the process flow of each new access request, we found similarities between them which allowed us to consolidate all of them into one.**
- **Automated form for required security checks, account tracking, workflow tracking, improved productivity and streamlined system access process.**

System Access – After VE...

Function Analysis System Technique

(FAST)

HOW →

← **WHY**

**Gain
Access**

Process
Request

Obtain “A”
Proponent
Approval

IA
Concurs

Initiate
Request
(Form)

Contact
IASO

Obtain
Supervisor
Approval

**Request
Access**

Verify
Compatibility

Justify
Request

Determine
Risk

Verify
Investigation

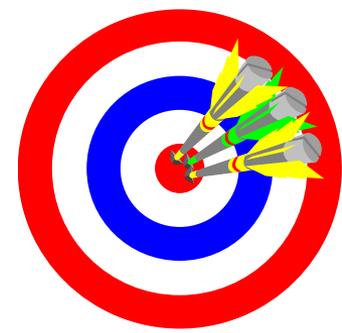
Verify
Accreditation

Obtain
Accreditation





System Access

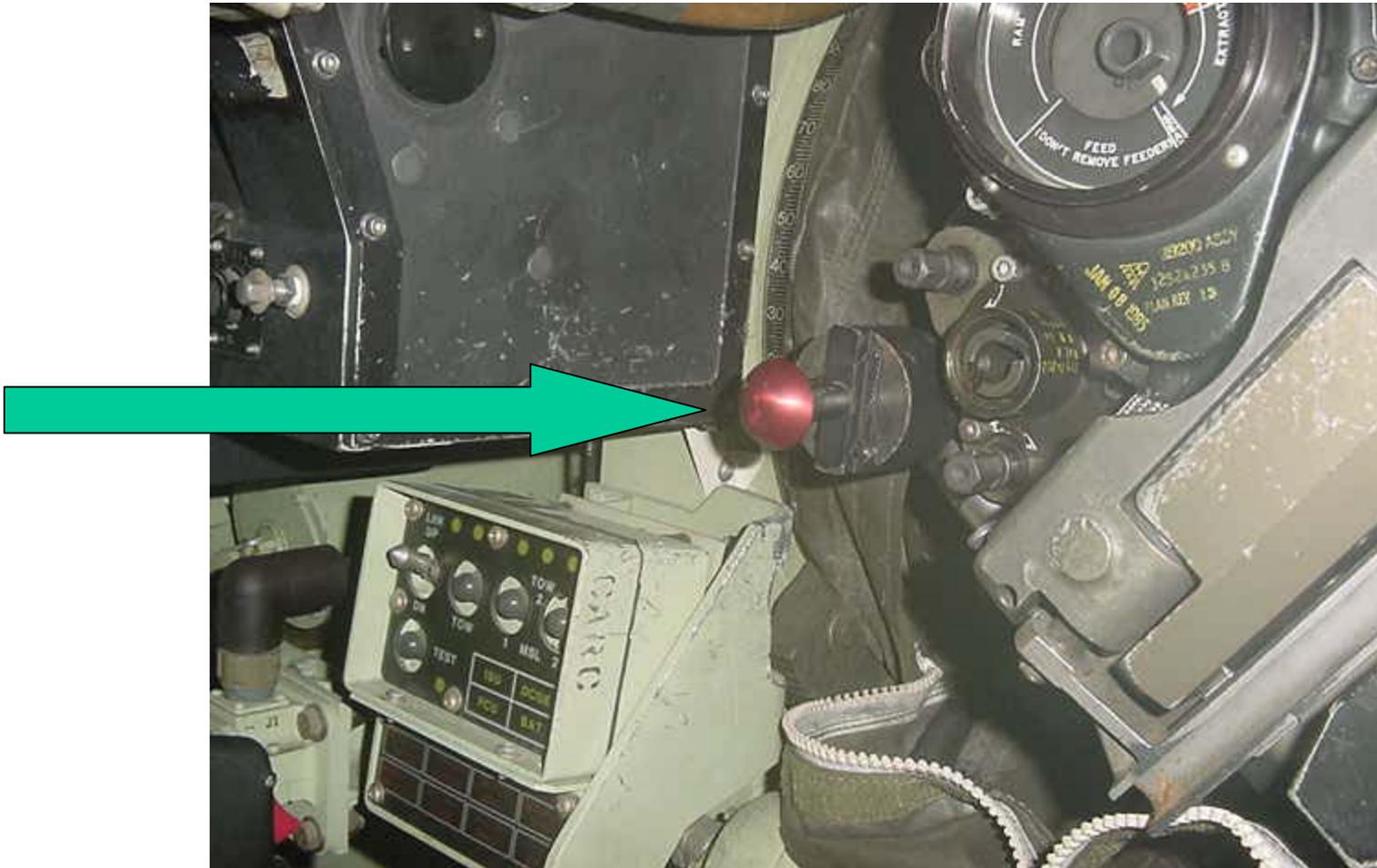


What	Gov or Con	Cost Per Request	# Requests	Actual Time	Actual Cost	Proposed Time	Proposed Cost	Proposed Savings
Processing time	Government	\$63	10,000	7 days	632.0k	3 days	430k	202k
Processing time	Cont, In-house	\$63	1,500	10 days	95.5k	5 days	95.5k	64.5k
Processing time	Cont, Outside	\$63	1,000	30 days	63.4k	15 days	43k	20.4k
Processing time	Cont (Derogatory)	\$122	50	90 days	6.1k	30 days	5.1k	1k
Sub Total			12,500		797k		573.6k	287.9k
Non Productivity	Government	\$63	10,000	7 days	2.6 Mil	3 days	1.1 Mil	1.5 Mil
Non Productivity	Cont In-house	\$63	1,500	10 days	9 Mil	5 days	4.5 Mil	4.5 Mil
Non Productivity	Cont Outside	\$63	1,000	30 days	18 Mil	15 days	9 Mil	9 Mil
Non Productivity	Cont (Derogatory)	\$122	50	90 days	2.7 Mil	30 days	.9 Mil	1.8 Mil
Sub Total					\$32.3 Mil		\$15.5 Mil	\$16.8 Mil

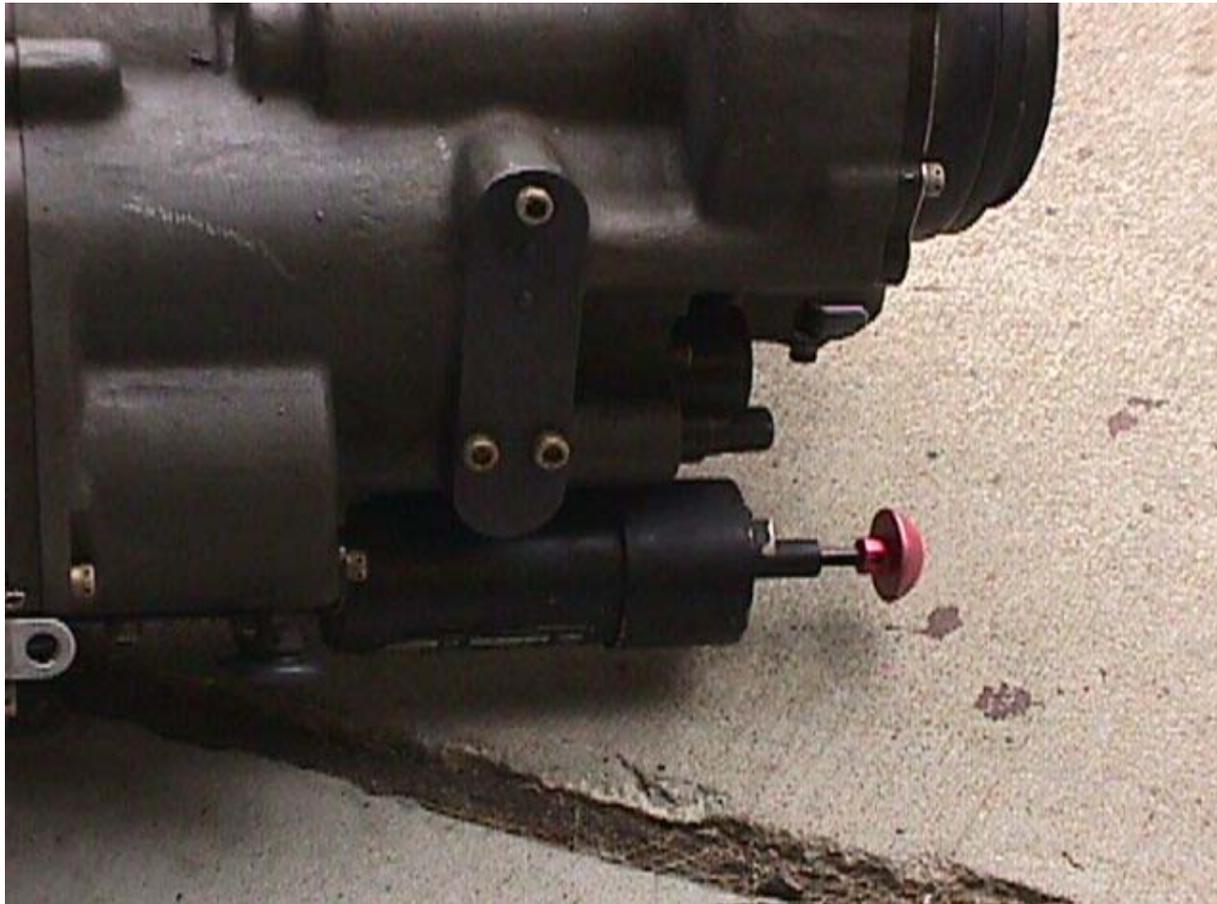
Other Tangible Cost Savings With Undetermined Dollars:

Reduction in Paper - Printing Costs - Less Overhead

SOLENOID IN BRADLEY TURRET

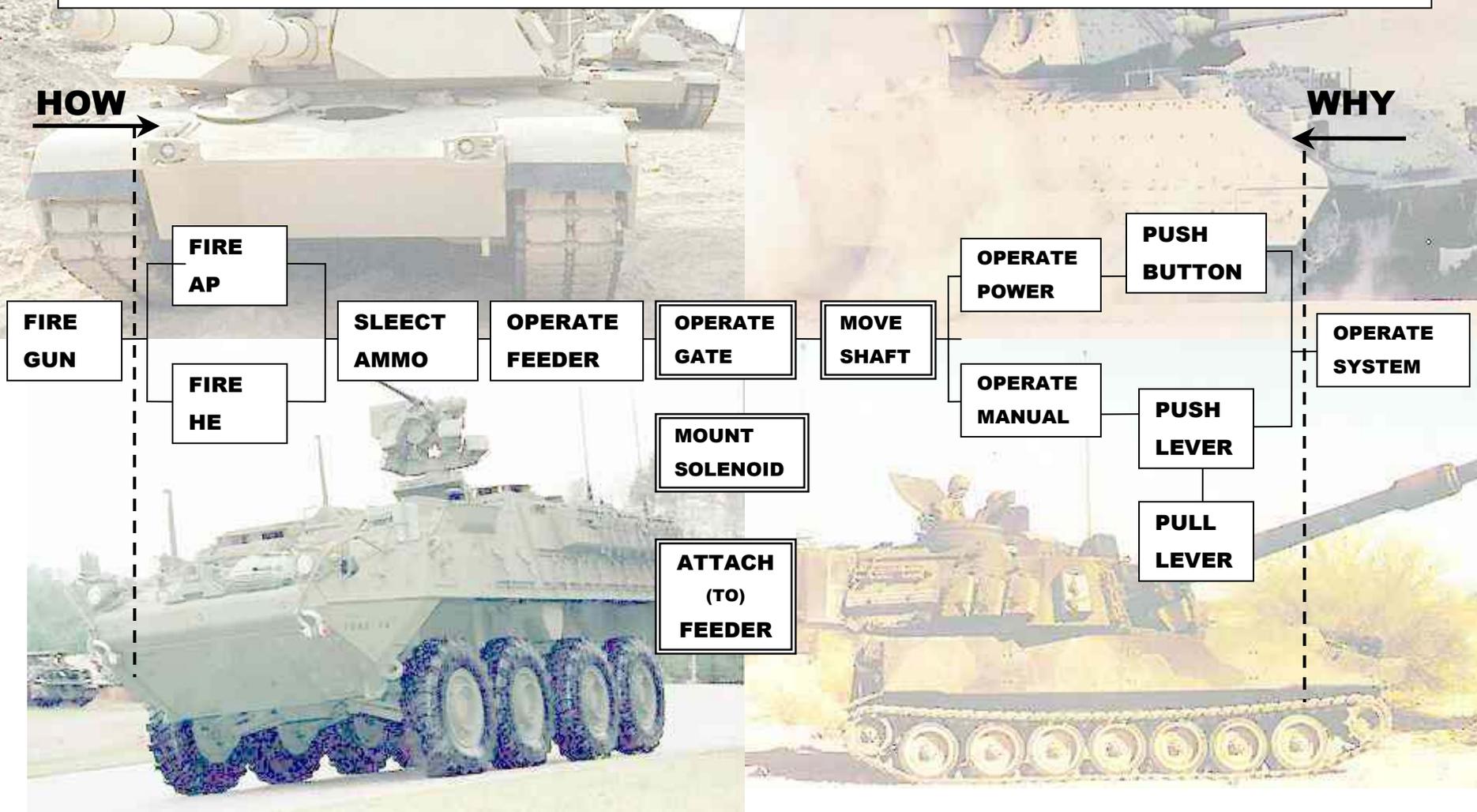


VULNERABLE KNOB



FEED SELECT SOLENOID

F.A.S.T. DIAGRAM



EVALUATION MATRIX

List the best ideas from suitability evaluation. Determine which one ranks best against desired criteria. Work down. 10 = Superior 5 = Average 1 = Poor		Objectives or Criteria										Total	Ranking	Act Now	Modify How?	Study Identification
		REPLACEMENT RATE	MAINTENANCE PERFORMANCE COST (NON-RECURRING)	IMPLEMENTATION-LOGISTICS INPUT	IMPACT TO USER	COST (RECURRING)										
Alternatives	Weight	8	5	3.5	10	2	2.5									
IGNORE PROBLEM		1 8	1 5	10 35	10 100	1 2	2 5							155	4	
CHANGE MAINT./TRNG.TM'S		4 32	7 35	8 28	8 80	5 10	5 13							198	2	
PERMANENT GUARD OVER SOLENOID		8 64	4 20	2 7	5 50	5 10	2 5							156	3	
REDESIGN SHAFT AND/OR KNOB-NO P/N CHANGE		8 64	9 45	3 10.5	10 100	8 16	8 8							244	1	
REDESIGN SHAFT AND/OR KNOB-WITH P/N CHANGE		8 64	9 45	3 10.5	1 10	8 16								146	5	

BENEFIT/COST ANALYSIS

- Change Training/TMs

Low Cost Low Benefit Low Risk

- Redesign Solenoid Shaft/Knob

Low Cost Mod. Benefit Low Risk

(\$25K) (Reduce failure rate by 40%, increase unit cost by \$200)

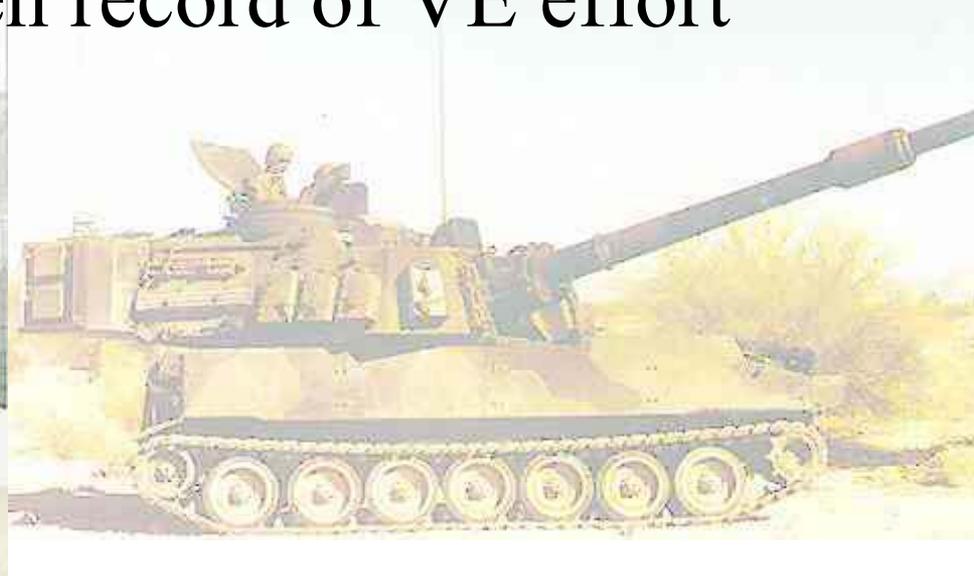
\$753K Failed units cost before redesign (annual)

-\$524K Failed units cost after re-design (annual)

\$229K Estimated savings/year

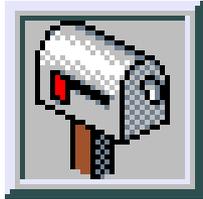
Lessons Learned...

- Apply VE Job Plan to *all* aspects of your business
- Job Plan is our *“track”*
- Provides a good written record of VE effort
- Invites creativity



How to Contact us...

<http://valuengineering.tacom.army.mil>



valuengr@tacom.army.mil

DSN 786-5392

Comcl (586) 574-5392