

# AMMO-FM

Asset Management, Maintenance, and Operations Toolkit  
Facility Management Module

Presented by:

Mr. Bob Heselton  
U.S. Army Corps of Engineers  
Fort Worth District



Mr. Jim Shute  
Dewberry & Davis LLC  
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# AGENDA

- Why FUS?
- Army Real Property Update Process
- The Team
- Lessons Learned / Challenges
- Task Order Details
- Deliverables
- What is AMMO?
- Solution Framework
- AMMO Demonstration
- The Way Ahead



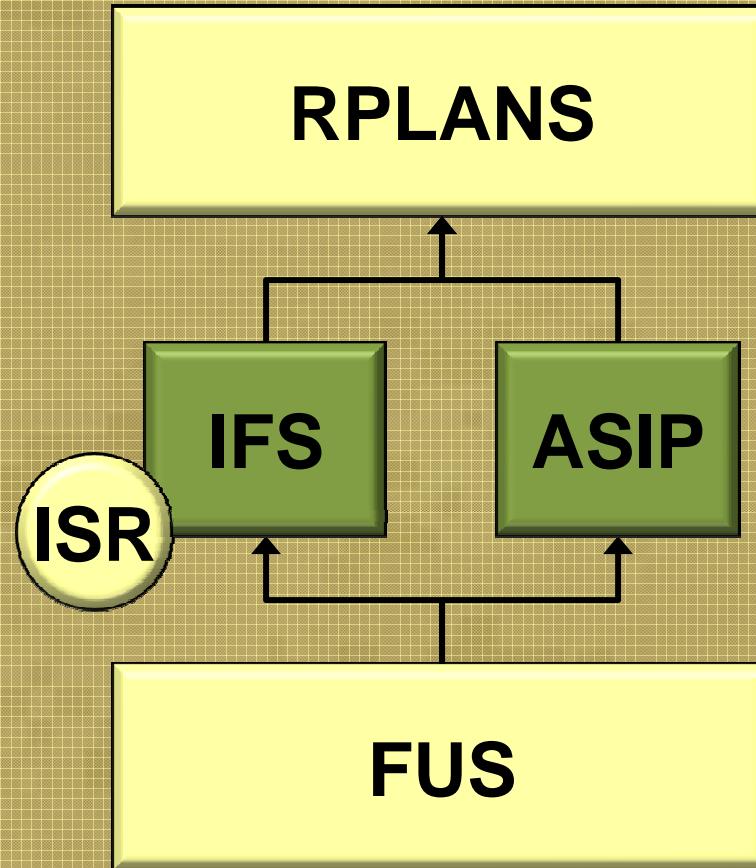
# WHY FUS?

- Why are installations doing FUS?
  - Operations & Maintenance (O&M) Funding for Buildings / Facilities tied to utilization & capacity
  - Losing out on Building Operational Need
  - Losing out on Mission Capability
- Spatial Data
  - Measured in field and calculated in GIS (more accurate)
- Requirement to update Real Property Records
  - Integrated Facility System (IFS)
- **Losing out on Millions of O&M \$\$ per year!!**



# ARMY REAL PROPERTY UPDATE PROCESS

- FUS activities generate current facility data
- FUS updates incorporated into IFS & ASIP
- RPLANS Updated
- RPLANS determines funding
  - Operations & Maintenance (O&M) Dollars
  - Construction Dollars



# THE TEAM

- U.S. Corps of Engineers, Fort Worth District
- Installations
  - Fort Polk Army Base (DPW)
  - Fort Bliss Army Base (DPW & Environmental)
  - White Sands Missile Range (DPW & Environmental)
- Contract Support
  - Project Manager
  - Site Manager (1 per installation)
  - Field Survey Crews  
(26 total personnel)



# LESSONS LEARNED / CHALLENGES

- Insufficient internal (organic) USACE staff
- Field Survey attributes must be tied to required reports
- Timely field data entry schedule
  - Minimal time between collection and entry
  - 2 times per week



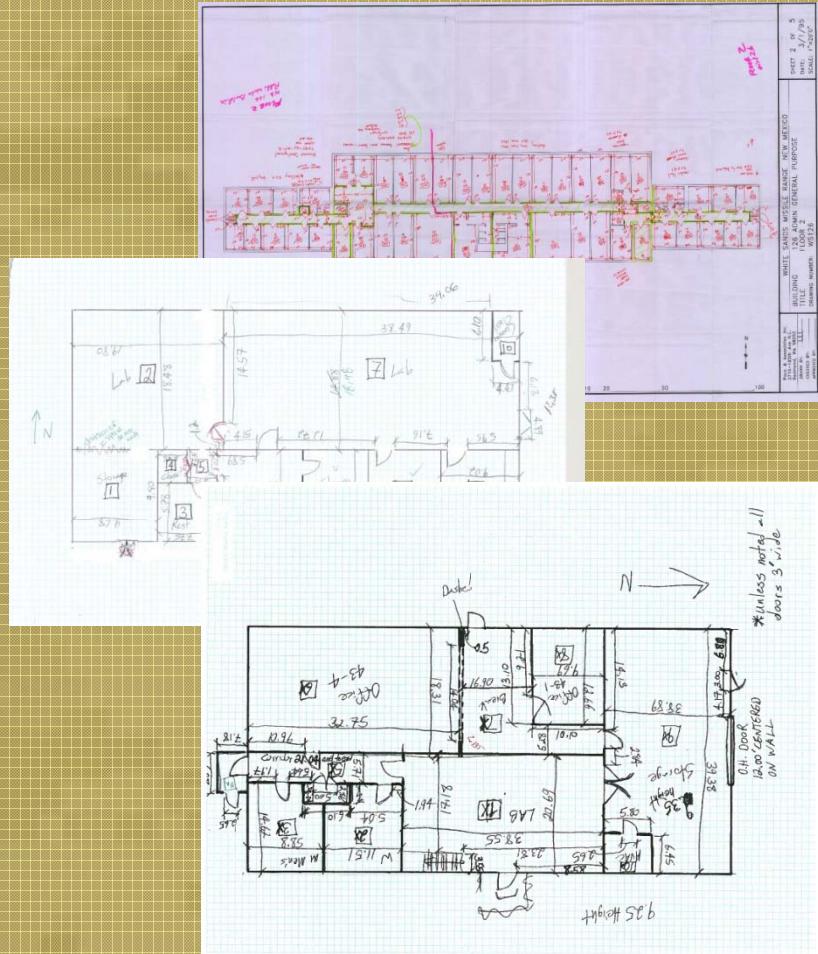
# TASK ORDER DETAILS

- Facility Utilization Surveys
  - 4 Phases (2 Phases at 2 Installations, plus Ft. Polk)
    - Over 1500 Facilities
      - Administrative, Operations, Storage, Research & Development
    - 7.1 Million Sq Ft of Real Property Inspected
  - Scope of Work
    - Field Survey (measure, validate, and correct floor plans)
    - Hard copy reference document
    - Validate Floor Plans (field survey)
    - Analysis (ASIP, IFS)



# WORKING DOCUMENTS

- Redline Drawings
- Datasheets/Field Notes



**WHITE SANDS MISSILE RANGE - ADMIN FLOOR PLAN DATA COLLECTION WORKSHEET**

SURVEY DATE		CONTACT INFORMATION	
SURVEY CREW	11/5/07	NAME	JAMES R. WILKINSON
FACILITY #	102	PHONE	(505) 270-4615
FACILITY NAME	WHITE SANDS MISSILE RANGE, NEW MEXICO	E-MAIL	
CATCODE	1W05-102	ESCAPE NAME	James R. Wilkinson @ USAMRMC MIL
FACILITY NOTES	No. 102-A		
FLOOR	ROOM ROOM ID	ROOM DESCRIPTION	WSPACE IN USE
1	100 17	OFFICE	1 4 G
1	101 43	OFFICE	1 4 G
1	102 43	OFFICE	1 4 G
1	103 43	OFFICE	1 4 G
1	104 43	OFFICE	1 4 G
1	105 43	OFFICE	1 4 G
1	106 43	OFFICE	1 4 G
1	107 43	OFFICE	1 4 G
1	108 43	OFFICE	1 4 G
1	109 43	OFFICE	1 4 G
1	110 43	OFFICE	1 4 G
1	111 43	OFFICE	1 4 G
1	112 43	OFFICE	1 4 G
1	113 43	OFFICE	1 4 G
1	114 43	OFFICE	1 4 G
1	115 43	OFFICE	1 4 G
1	116 43	OFFICE	1 4 G
1	117 43	OFFICE	1 4 G
1	118 43	OFFICE	1 4 G
1	119 43	OFFICE/STORAGE	1 4 G
1	120 43	OFFICE	1 4 G
1	121 43	OFFICE	1 4 G
1	122 43	OFFICE	1 4 G
1	123 43	OFFICE	1 4 G
1	124 43	OFFICE	1 4 G
1	125 43	OFFICES	0 4 G
1	126 43	OFFICES	0 4 G
1	127 43	CONFERENCE	0 4 G
1	128 43	PRINT LAB	0 4 G
1	129 43	DRAWING STUDIO	0 4 G
			1 4 G

**ROOM CONDITION NOTES:**  
Green (G): Serviceable, incident, minor repair required.  
Amber (A): Serviceable, far, only requires routine maint. and repair work.  
Yellow (Y): Serviceable, poor, would require major, and repair if that is too costly.  
Black (B): Physically non-serviceable.

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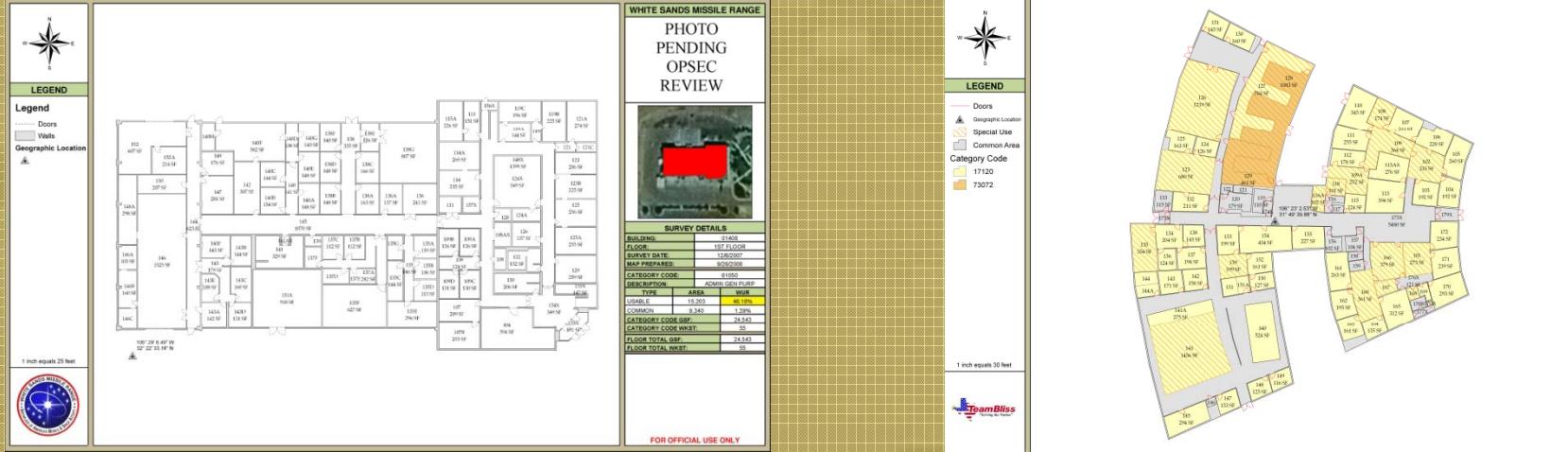
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FLOOR	ROOM ROOM ID	ROOM DESCRIPTION	WSPACE IN USE
1	340 43	OFFICE	1 100% G
1	341 43	OFFICE	0 0% G
1	342 43	OFFICE	0 100% G
1	343 43	OFFICE	0 100% G
1	344 43	OFFICE	0 100% G
1	345 43	OFFICE	0 100% G
1	346 43	OFFICE	0 100% G
1	347 43	OFFICE	0 100% G
1	348 43	OFFICE	0 100% G
1	349 43	OFFICE	0 100% G
1	350 43	OFFICE	0 100% G
1	351 43	OFFICE	0 100% G
1	352 43	OFFICE	0 100% G
1	353 43	OFFICE	0 100% G
1	354 43	OFFICE	0 100% G
1	355 43	OFFICE	0 100% G
1	356 43	OFFICE	0 100% G
1	357 43	OFFICE	0 100% G
1	358 43	OFFICE	0 100% G
1	359 43	OFFICE	0 100% G
1	360 43	OFFICE	0 100% G
1	361 43	OFFICE	0 100% G
1	362 43	OFFICE	0 100% G
1	363 43	OFFICE	0 100% G
1	364 43	OFFICE	0 100% G
1	365 43	OFFICE	0 100% G
1	366 43	OFFICE	0 100% G
1	367 43	OFFICE	0 100% G
1	368 43	OFFICE	0 100% G
1	369 43	OFFICE	0 100% G
1	370 43	OFFICE	0 100% G
1	371 43	OFFICE	0 100% G
1	372 43	OFFICE	0 100% G
1	373 43	OFFICE	0 100% G
1	374 43	OFFICE	0 100% G
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1	407 43	OFFICE	0 100% G
1	408 43	OFFICE	0 100% G
1	409 43	OFFICE	0 100% G
1	410 43	OFFICE	0 100% G
1	411 43	OFFICE	0 100% G
1	412 43	OFFICE	0 100% G
1	413 43	OFFICE	0 100% G
1	414 43	OFFICE	0 100% G
1	415 43	OFFICE	0 100% G
1	416 43	OFFICE	0 100% G
1	417 43	OFFICE	0 100% G
1	418 43	OFFICE	0 100% G
1	419 43	OFFICE	0 100% G
1	420 43	OFFICE	0 100% G

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# FINAL DOCUMENTS

- Revised Floor Plans



- Room Lists

FACILITY #: 00126										ROOM LIST												
FLOOR: 1ST FLOOR																						
ROOM ID	SURVEY DATE	CATCODE	ROOM DESCRIPTION		COMMENTS		UIC CODE	UIC EXT. CODE	UIC DESCRIPTION	ROOM CATEGORY	WK SPACE TOTAL	WK SPACE IN USE	GSF	NSF	WK SPACE CAP.	STORAGE TYPE	STORAGE LOCATION	HEIGHT	STORAGE USED (%)	ACF	TCF	ROOM CONDITION
100	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	245	245	1 RB			0	***	***	UNUSABLE	
100AX	1/28/2008	61050	OTHER USE: Yes - SEE COMMENTS		CLOSET		W6CJAA	80	PUBLIC WORKS OFFICE	SPECIAL	0	0	14	14	0.11			0	***	***	FAIR	
101	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	166	166	1.28			0	***	***	UNUSABLE	
101AX	1/28/2008	61050	OTHER USE: Yes - SEE COMMENTS		CLOSET		W6CJAA	80	PUBLIC WORKS OFFICE	SPECIAL	0	0	14	14	0.11			0	***	***	FAIR	
102	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	168	168	1.29			0	***	***	UNUSABLE	
103	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	169	169	1.30			0	***	***	UNUSABLE	
104	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	166	166	1.28			0	***	***	UNUSABLE	
105	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	169	169	1.30			0	***	***	UNUSABLE	
106	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	167	167	1.28			0	***	***	UNUSABLE	
107	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	192	192	1.48			0	***	***	UNUSABLE	
108A	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	167	167	1.28			0	***	***	UNUSABLE	
108B	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	151	151	1.16			0	***	***	UNUSABLE	
109A	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	48	48	0.37			0	***	***	UNUSABLE	
109B	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	255	255	1.96			0	***	***	UNUSABLE	
111	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	251	251	1.93			0	***	***	UNUSABLE	
112A	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	239	239	1.84			0	***	***	UNUSABLE	
112B	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	342	342	2.63			0	***	***	UNUSABLE	
113	1/28/2008	61050	RENOVATIONS				W6CJAA	80	PUBLIC WORKS OFFICE	USABLE	0	0	263	263	1.05			0	***	***	UNUSABLE	



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# REPORTS

## DD1354 (Transfer of Real Property)

**TRANSFER AND ACCEPTANCE OF MILITARY REAL PROPERTY**

This report is used to document the transfer of real property between military installations. It is used to record the transfer of property from one installation to another, or from one unit to another. It is also used to record the acceptance of property transferred to the unit.

PLAQUE NOT FURNISHED OR COMPLETED: REFER TO THE LIOB FOR INSTRUCTIONS

1. FROM: <input type="text"/> Fort Bliss Army Base (HCR)	2. DATA FURNISHED: <input type="checkbox"/> 3. PROPERTY NUMBER: <input type="text"/> TH42000	4. SERIAL NUMBER: <input type="checkbox"/>	5. TRANSACTION DETAILS:
<input type="checkbox"/> 6. ITEM (unit of measure in thousands) <input type="checkbox"/> 7. CONTRACT NUMBER(S): <input type="checkbox"/> 8. EXPIRING NUMBER(S): <input type="checkbox"/>			
9. DATE: <input type="text"/> 10. TIME: <input type="text"/> 11. COUNTRY: <input type="text"/> 12. COUNTRY: <input type="text"/>	13. TYPE: <input type="text"/> 14. LENGTH: <input type="text"/> 15. WIDTH: <input type="text"/> 16. DEPTH: <input type="text"/> 17. COST: <input type="text"/> 18. AREA CODE: <input type="text"/> 19. STATE CODE: <input type="text"/> 20. ZIP CODE: <input type="text"/>	21. CITY: <input type="text"/> 22. STATE: <input type="text"/> 23. ZIP CODE: <input type="text"/>	24. ADDRESS: <input type="text"/>
14. ATTACHMENT OF CONDITIONS: <input type="checkbox"/> 15. DATE ACCEPTED: <input type="checkbox"/> 16. DATE APPROVED: <input type="checkbox"/>			
17. TELE: <input type="text"/> 18. MAIL: <input type="text"/> 19. FAX: <input type="text"/>			

**ADMINISTRATIVE UTILIZATION SHEET**

UTILIZATION OF ADMINISTRATIVE SPACE  
DATA SHEET FOR EACH BUILDING

INSTALLATION:  HCR  
BUILDING:  00001  
SPACE TYPE:

DATE:  2007-11-26  
CATEGORY CODE:  B1050

A	B	C
SO. FT (SF)	PERSONNEL (DESIGNED)	SF/PERSON (DESIGNED)
111,467.53	726.00	729.80
<b>EXCLUSION (USABLE SPACE) (IN SF)</b>		
a. For Int. Living Area	2,700.04	N/A
b. Storage	2,816.20	N/A
c. Computer Shells		N/A
d. Restrooms (Showers)	972.34	N/A
e. Permanent Infrastr.	3,308.39	N/A
f. Mechanical Rooms	106.43	N/A
g. Mfg. Maint. Rooms	42.76	N/A
h. Unuse. Basement/Mech	2,047.79	N/A
i. Other (Specify)	81.77	N/A
<b>TOTAL EXCLUSIONS OR 20% OF GROSS AREA</b>	11,466.92	N/A
<b>ADJUSTED GROSS SF</b>	94,510.62	726.00
<b>SPECIAL TYPE SUPPLEMENTAL SPACE</b>		
a. Central File		N/A
b. Business Machine Rooms		N/A
c. Drinking Room		N/A
d. Reproduction Room	99.92	1.00
e. Library		N/A
f. Cafeteria		N/A
g. A&P Room		N/A
h. Laboratories		N/A
i. Auditorium/Mtg Rms		N/A
j. Storage	44.36	0.20
k. Mail		N/A
l. Vaults		N/A
m. Common Use Conf Rms		N/A
n. Others	1,802.88	8.00
<b>TOTAL SPECIAL TYPE</b>	1,747.16	9.00
<b>NET SF FT</b>	97,763.46	719.20
MAXIMUM PERSONNEL @ 150 SF/EACH = <input type="text"/> 752.03		
PERCENT BLDG UTILIZED = <input type="text"/> 41.41%		
SQUARE FEET AVAILABLE FOR USE = <input type="text"/> 58,203.40		
NO. OF PERSONNEL THAT CAN BE PLACED IN BUILDING = <input type="text"/> 431.03		

## DD805 (Storage Space Management)

STORAGE SPACE MANAGEMENT REPORT	DATE (YYYYMMDD)	INSTALLATION CODE	U.S. ARMY	NAME OF INSTALLATION	CITY NAME	STATE/COUNTRY	REPORT CONTROL SYMBOL
OUTGRANTED TO	OUTGRANTED GSF	INGRANTED FROM	INGRANTED GSF	LEASED FROM	LEASED GSF	ANNUAL LEASING COST	
POINT OF CONTACT FACILITY: <input type="text"/> 00845	DSN	COVERED GENERAL PURPOSE STORAGE		OPEN STORAGE			
<b>SECTION I - GROSS SPACE AVAILABLE (GSF = Gross Square Feet)</b>							
1. TOTAL GSF REPORT	-	-	-	-	-	-	-
2. TOTAL GSF THIS PERIOD	6,038	6,038	0	0	0	0	0
3. UNUSABLE GSF	0	0	0	0	0	0	0
4. SF IN STANDBY	-	-	-	-	-	-	-
5. OUTGRADED GSF (FROM DSD)	-	-	-	-	-	-	-
6. INGRADED GSF (TO DSD)	-	-	-	-	-	-	-
7. TOTAL OUTGRANTED (N=4)	-	-	-	-	-	-	-
8. TOTAL INGRADED GSF (N=6)	-	-	-	-	-	-	-
9. INGRADED GSF	-	-	-	-	-	-	-
10. TOTAL AVAILABLE (N=1, 4, 9)	6,038	6,038	0	0	0	0	0
11. AGES, STRUCTURAL LOSS, AND SUPPORT SPACE (GSF)	0	0	0	0	0	0	0
<b>SECTION II - NET SPACE AVAILABLE (NSF = Net Square Feet, TCF = Total Cubic Feet, ACF = Attainable Cubic Feet)</b>							
12. NSF IN BIN AREA	0	0	0	0	0	0	0
13. NSF	6,038	6,038	0	0	0	0	0
14. TCF	0	0	0	0	0	0	0
15. ACF	0	0	0	0	0	0	0
16. BINS	27,910	27,910	0	0	0	0	0
17. RACKS	27,510	27,510	0	0	0	0	0
18. LOCATIONS	42,265	42,265	0	0	0	0	0
19. PREVIOUS EDITION	64%	64%	0	0	0	0	0
OK LOCATIONS: 17 OCCUPIED BIN LOCATIONS - 1 OCCUPIED RACK LOCATIONS: 17 BIN - PERCENT OCCUPIED: - RACK - PERCENT OCCUPIED: PREVIOUS EDITION MAY BE USED.							

## Administrative Utilization Sheet (WSMR)

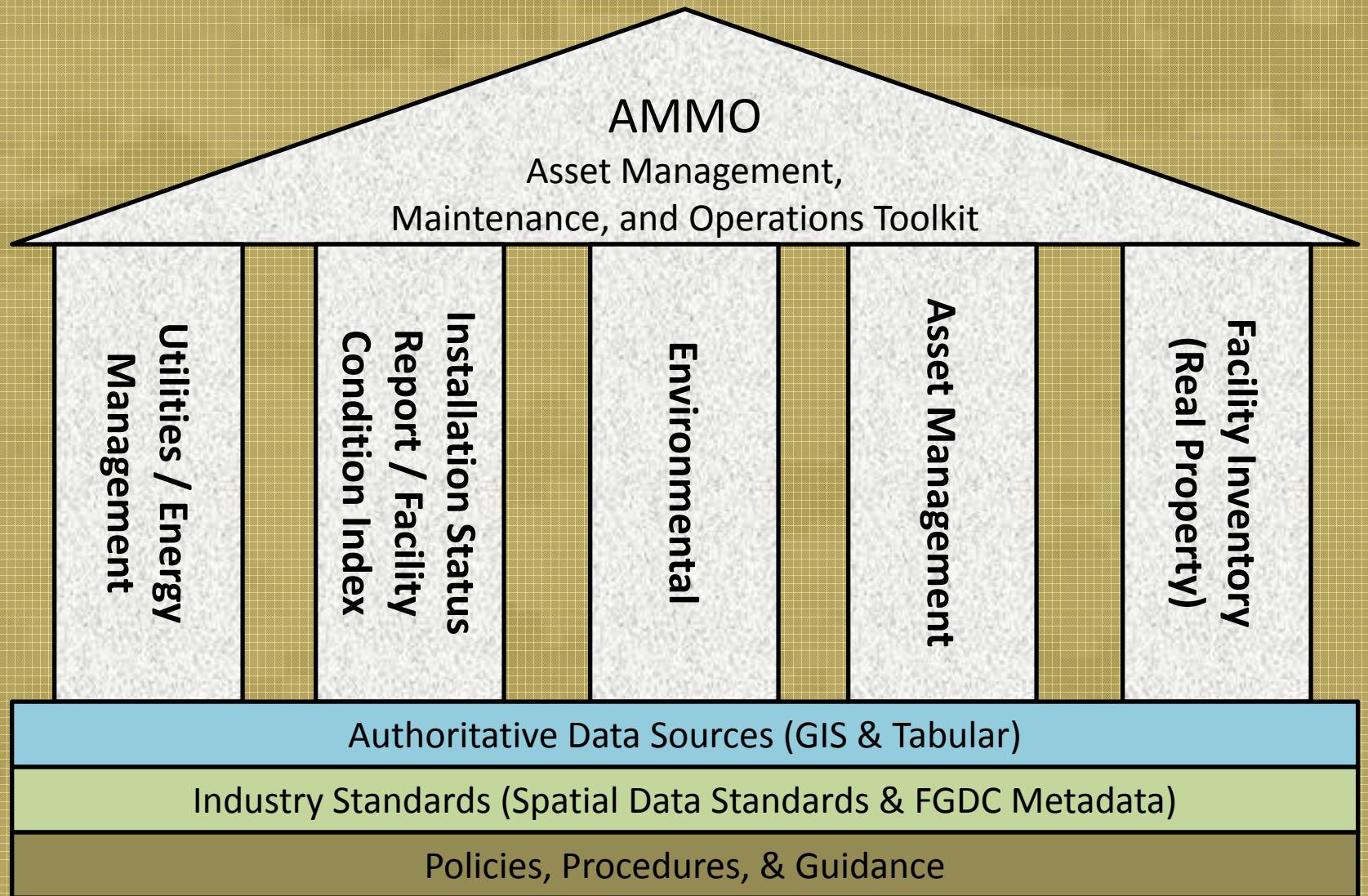


# WHAT IS AMMO?

- Application Development Approach
  - Object Oriented Development
  - Asset Management Framework
- Standards-based (SDSFIE, FGDC, etc.)
- Multiple security roles
  - “Editors”
  - CAD/GIS Personnel
- Facility Management Module (FM)
  - Focused on facility inventory, utilization statistics, and space management



# SOLUTION FRAMEWORK



# AMMO DEMONSTRATION



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# THE WAY AHEAD

- Business Process Improvement
  - Policies & Procedures
  - Organization Responsibilities / Stewardship
  - Sustainment
- Technology
  - GPS Handheld (Elaborate; external reference point, internal attributes)
  - Digital Measurement Tool (Laser Range Finder)
    - Measurements direct to DB
  - Digital Pen Integration (Capturx)
- Establish DB-to-DB linkage with legacy authoritative data sources
  - IFS
  - ASIP
  - RPLANS (Real Property Planning and Analysis System)
  - Air Force ACES (Real Property & Project Management)



# THANK YOU



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