Part I
MEDCOM BEST VALUE
Current Situation

- US Army Medical Command and US Army in general is reconfiguring to maximize use of resources

- Requirements are increasing

- Resources are diminishing

- Cannot afford to do business the same way
Potential reactions

• Cut resources and force everyone to do more

• Do business as usual, put the same amount of resources in, and become reactive, low performance, low value

• Change to a more efficient model
Solutions

- Design-build
- Outsourcing
- IDIQ
- Move from Quality Control to Quality Assurance
- Best value practices
For complete description of materials and how to build it please refer to Genesis Chapter 5:14-16.
Players and Core Competencies

- MEDCOM: Change the structure of delivering business to increase performance
- Hospitals: requirement
- COE: buy best value, assist contractors to be successful
- Contractors: construction
Current Structure

- Technical
- Control Oriented
- No documentation
- Inefficient
- Confusing
- No Accountability
Changing Philosophy

- Alignment
- Everyone assist the other
- Use an efficient structure
- Minimize decision making, management, control, direction, communications
- Preplan, timing, accountability, measurement, and risk management using dominant information
Dominant information

- Minimizes decision making
- Timely
- Efficient
- Minimizes information flow
Four year upswing of 4,000 points (40%) from 2004 to 2008.

One year downswing from 2008.

$700B buyout to assist banks to recoup their losses as of 11 February 2008.
Two year upswing
Three year downswing
Differential: 5,500
Percentage: 39.2%

4-1/2 year upswing
One year downswing
Differential: 5,000
Percentage: 41.7%

As of 11 February 2008
Slide 13 of 74
1959: negative net worth
No natural resources
People
Well earned reputation for shoddy work and products

Any country with good management and people can become successful
World’s most underdeveloped nation

- “With the storehouse of skills and knowledge contained in its millions of unemployed, and with the even more appalling underuse, misuse, and abuse of skills and knowledge in the army of employed people in all ranks in the industries, the United States may be today the most underdeveloped nation in the world.”

- “It would be a mistake to export American management to a friendly country.”

- This hasn’t changed today
Principles for Transformation of Western Style of Management

• Western style of management must change to halt decline of western industry

• Measure the performance of management

• Cannot “buy” improvement of quality

• Best efforts not sufficient: “think of the chaos that would come if everyone did his best, not knowing what to do.”

• Consistency of effort: “there is no substitute of teamwork and good leaders of teams to bring consistency of effort, along with knowledge.”
Solution Methodology

- Alignment: structural change, education, change function and timing, not behavior
- Education instead of decision making
- Information system
- Measurement
- Risk Management
U.S. Army Medical Command

<table>
<thead>
<tr>
<th>No.</th>
<th>Project Overview</th>
<th>Firm 2</th>
<th>Firm 5</th>
<th>Firm 1</th>
<th>Firm 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total Number of Projects</td>
<td>14</td>
<td>37</td>
<td>36</td>
<td>10</td>
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<tr>
<td>2</td>
<td>Total Allocated Budget: $15,345,689</td>
<td>$54,865,456</td>
<td>$72,654,895</td>
<td>$8,987,987</td>
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<td>3</td>
<td>Total Awarded Cost: $15,034,914</td>
<td>$53,153,957</td>
<td>$71,054,084</td>
<td>$6,096,004</td>
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<tr>
<td>4</td>
<td>Forecasted Final Cost: $15,241,904</td>
<td>$53,786,252</td>
<td>$74,198,483</td>
<td>$9,463,565</td>
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<table>
<thead>
<tr>
<th>No.</th>
<th>Cost Analysis</th>
<th>Firm 2</th>
<th>Firm 5</th>
<th>Firm 1</th>
<th>Firm 4</th>
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<tbody>
<tr>
<td>5</td>
<td>Percent of Projects On Budget</td>
<td>71%</td>
<td>78%</td>
<td>44%</td>
<td>60%</td>
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<tr>
<td>6</td>
<td>Percent of Cost Changes</td>
<td>1.4%</td>
<td>1.2%</td>
<td>4.4%</td>
<td>55.2%</td>
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<tr>
<td>7</td>
<td>Percent Due To Owner</td>
<td>1.0%</td>
<td>0.9%</td>
<td>2.9%</td>
<td>53.5%</td>
</tr>
<tr>
<td>8</td>
<td>Percent Due To Vendor</td>
<td>0.4%</td>
<td>0.3%</td>
<td>1.5%</td>
<td>1.7%</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Schedule Analysis</th>
<th>Firm 2</th>
<th>Firm 5</th>
<th>Firm 1</th>
<th>Firm 4</th>
</tr>
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<tbody>
<tr>
<td>9</td>
<td>Percent of Projects On Time</td>
<td>57%</td>
<td>62%</td>
<td>44%</td>
<td>40%</td>
</tr>
<tr>
<td>10</td>
<td>Average Percent Delayed</td>
<td>11.1%</td>
<td>7.2%</td>
<td>6.7%</td>
<td>4.2%</td>
</tr>
<tr>
<td>11</td>
<td>Percent Due To Owner</td>
<td>6.6%</td>
<td>3.4%</td>
<td>5.5%</td>
<td>3.4%</td>
</tr>
<tr>
<td>12</td>
<td>Percent Due To Vendor</td>
<td>45%</td>
<td>38%</td>
<td>12%</td>
<td>5%</td>
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</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Risk Analysis</th>
<th>Firm 2</th>
<th>Firm 5</th>
<th>Firm 1</th>
<th>Firm 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Average number of Risks/Job</td>
<td>0.9</td>
<td>0.6</td>
<td>1.7</td>
<td>1.1</td>
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<tr>
<td>14</td>
<td>Project Manager Satisfaction</td>
<td>8.5</td>
<td>8.3</td>
<td>9.0</td>
<td>10.0</td>
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<tr>
<td>15</td>
<td>Overall Risk Rating</td>
<td>3.6</td>
<td>3.8</td>
<td>2.2</td>
<td>2.8</td>
</tr>
</tbody>
</table>
MEDCOM Objectives

• All projects over $300K are best Value PIPS documented (Risk Management Plan, weekly report, final performance report – internal Medcom QC)

• Encourage contractors to use performance information in their proposals and educate and motivate the client to use the information

• Document contractor performance on RMP (% completed, average rating)

• Use IDIQ request response time to assist COE to prioritize and reduce response times to contract issues
Constraints

• People, people, people

• Contractor transformation

• Client education on system

• System documentation

• Discipline

• Structure: accountability at the lowest level
Three Hours of Presentations

• First hour: the plan

• Second hour: case studies to show that the plan is correct and doable

• Third hour: the way forward
Key Educators

- Performance Based Research Group
- MEDCOM Staff
- Project Integrators
New Process Changes

• Funding will be provided based on performance and measurements.

• “Top 10” list will become an identifier of issues and problems that need additional attention from Regions and COE.

• Every task order over $300K will require a Risk Management Plan and Weekly Report.

• Close-out surveys will be valid performance measurements for the MEDCOM system.
Task Order New Process

Weekly Reports

Selection
- NTP
- Site Checklist

Site Investigation
- NTP
- Site Checklist

Work Plan
- NTP
- Cost Estimate and BV package

PreCon
- NTP
- Pre-Con Checklist

Construction
- NTP
- Close-out Survey

1. Initiate Weekly Project RM Plan
2. Verify existing conditions
3. Verify Scope of the project
4. Additions to RM Plan if needed
5. Design
6. RM Additions
7. Cost Estimate
8. Review
   a. Design
   b. RM Additions
   c. Cost Estimate
New Task Order Process

• Identify risks immediately on projects
  – Separate risk from project requirements
  – Risk management plan

• Creating and Submitting Weekly Reports every week (From site investigation NTP)
  – Everyone will know who is responsible for project

• Sending close-out survey to owner for final rating
Objectives

• Weekly report

• Risk Management Plans (risks that have not occurred yet)

• Best Value Construction Proposals (Work Plan)
PI/QA/PM/Facility Responsibilities

- Educators of best value PIPS
- Ensure accuracy of Weekly Reports
- Ensure Risk Management plan includes do-able schedule and all concerns of the FM
- Minimize any efforts to manage, direct, and control the contractor
RISK MANAGEMENT PLANS
MEDCOM Best Value Risk Management

Leadership Based Structure...

Me & Them

Us

Risks

Risks

Control

Don't Control

Don't Control

As of 11 February 2008
Weekly Report

Front Page
- Project Particulars
- Project name
- Client PM
- Procurement agent
- Start
- End
- Date
- Contract award
- PM

Risk than happened
- Date
- Why risk wasn’t minimized
- Solution
- Cost and time
- Status (weekly update)
- Rating of how they responded
- Risk rating (cost and time and response rating)
- Contractor errors

Schedule / Status
- Schedule
- Change orders

Risk that hasn’t Happened yet
- Risk
- Minimization of risk

Director’s Report
- Contractors
- PMs
- Subcontractors
RMP Objectives

• Plan through entire project

• Identify all risks that the vendor does not control that could become an issue

• Identify, quantify and minimize all client expectations/concerns
Difference Between RAP and RMP

**Risk Assessment Plan**

- Performed when bidding on a project
- Contains Risks that the contractor sees on a project
- Limited to 2 pages w/ no names
- Purpose is to differentiate from other vendors

**Risk Management Plan**

- Completed soon after NTP is given on a project
- Contains Risks that everyone sees (client, vendors, etc.)
- No restriction on size and names allowed
- Purpose is to minimize risks that the vendor does not control
MEDCOM Best Value Risk Management

- Unforeseen Risks

RISK MANAGEMENT PLAN
- Risks that the vendor does not control
- Risk Schedule Items

WEEKLY REPORT
- Risk
- Unforeseen Risks

RISK ASSURANCE
- Checklist of Risks
- Sign and Date

PERFORMANCE SUMMARY
- Vendor Performance
- Client Performance
- Individual Performance
- Project Performance

As of 11 February 2008
Preplanning Meetings

• Purpose of Meeting
  – Make owner feel comfortable
  – Show owner value

• All concerns, approval items, questions, should be resolved before the meeting

• Documentation should be sent to owner representatives before the meeting
Risk Management Plan

- Contractor separates risk from requirement
- All Risks that the vendor does not control are listed
- All client concerns
- Chart of Client Action Items
- Schedule/Milestones
Difference Between Risks

**Risk that you control....**

- Technical
- Managing Subcontractors
- Handling of Materials
- Knowledge of Army Procedures

**Risk that you don’t control....**

- Other Organizations (COE, Facility)
- Weather
- Site Conditions
- Available Resources
Source of Project Risks

- Contractor is not the cause of most risks
- Medcom internal documentation shows this

<table>
<thead>
<tr>
<th>Entity</th>
<th>Days</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Contractor</td>
<td>438</td>
<td>5%</td>
</tr>
<tr>
<td>FM</td>
<td>4271</td>
<td>44%</td>
</tr>
<tr>
<td>COE</td>
<td>3742</td>
<td>39%</td>
</tr>
<tr>
<td>Unforeseen</td>
<td>1240</td>
<td>13%</td>
</tr>
<tr>
<td>Totals</td>
<td>9691</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Entity</th>
<th>$$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractor</td>
<td>$1,051,992</td>
<td>4%</td>
</tr>
<tr>
<td>FM</td>
<td>$4,425,692</td>
<td>16%</td>
</tr>
<tr>
<td>COE</td>
<td>$21,149,101</td>
<td>77%</td>
</tr>
<tr>
<td>Unforeseen</td>
<td>$939,076</td>
<td>3%</td>
</tr>
<tr>
<td>Totals</td>
<td>$27,565,861</td>
<td></td>
</tr>
</tbody>
</table>
Past Issues

• Transition Space
• Receiving NTP and approvals
• Completion Dates
• Personality Conflicts
• Facility Procedures
• Management of Subcontractors
• Workplan to Construction
Risk Management Plan

• All Risks that the vendor does not control are listed

• Chart of Client Action Items

• All client concerns

• Schedule/Milestones
**List of Action Items**

**“Uncontrollable risks”**

- Any participation by individuals outside of the Vendor’s control
- A list of any decisions that must be made that are not pre-decided.

<table>
<thead>
<tr>
<th>Decisions</th>
<th>Due Date</th>
<th>Responsible Entity</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Inspection of Dock Area</td>
<td>5/17/2006</td>
<td>Dan Wright</td>
<td>Shipping Co.</td>
</tr>
<tr>
<td>2. Type of HVAC Equipment in Bay</td>
<td>6/25/2006</td>
<td>Tim Golim</td>
<td>City of Mesa</td>
</tr>
<tr>
<td>4. City Approval of Design Concepts</td>
<td>6/22/2006</td>
<td>Macy Klein</td>
<td>City of Mesa</td>
</tr>
</tbody>
</table>
Simplify Schedule

- Minimize Information
  - Important events
  - All risk events

Example of Bad Schedule
Introduced at Pre-Planning Meeting
Things to Avoid

• Marketing data:
  – Our company is known worldwide as a leader in quality construction.
  – We will use our long history to make sure the project is a success.
  – We have the longest warranties in the business.

• Technical data:
  – The roofing system we propose has 200% elongation and 600psi tensile strength.
  – A 50-year system will reduce water by 17,500 gallons per foot.

• Transferring risk back to client:
  – We will work with the owner to resolve issues
  – We will have team meetings with the owner
  – We will have a partnering meeting with the owner

• General risks and/or general solutions:
  – Safety and security is the biggest risk
  – We will plan ahead to coordinate activities
  – We will order material early in the project
Value Guidelines

- Specific (dates, costs, impact, names)
- Concise - short
- Simple – minimize technical information
- Clear and well organized
Risk Management Plan

• Dominant information

• All risks with risk minimization and action

• Give vendor control

• Minimize surprises

• Addresses everything you don’t control
WEEKLY REPORTS
What goes on the weekly?

- If risk has not happened, goes on the last page of the weekly report
- If risk has happened, it goes on the risk page, and the contractor tracks it
- Two different pages showing risks
Responsibility of the weekly

- The contractor is the only one authorized to make any changes to the weekly report.

- The contractor decides what goes on the weekly report.

- The owner only verifies that the documentation is accurate with what happened. If it is not accurate, the contractor changes it.
Weekly Report

Front Page
- Project Particulars
- Project name
- Client PM
- Procurement agent
- Start
- End
- Date
- Contract award
- PM

Risk than happened
- Date
- Why risk wasn’t minimized
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Schedule / Status
- Schedule
- Change orders

Risk that hasn’t Happened yet
- Risk
- Minimization of risk

Director’s Report
- Contractors
- PMs
- Subcontractors
Major Problems

• Poor Documentation of Risks

• DO NOT PUT ANYTHING BUT A NUMBER IN THE IMPACT COLUMN

• Every Mod must correlate to a Risk if not the report is invalid

• Every risk must have an impact to time, cost, or requirement not met
Examples of Bad Risk Documentation

Risk: Specialty equipment’s impact on design

1) Customer x-ray system does not allow dental chair relocation. 2) **Work with facility to develop solution.** 3) Vendor 4) Schedule delay
1/4/07 – **Issue not yet resolved.**

Risk: Response from Govt. on coping issue and submittals.

Fast response requires from Govt.
1/4/08 Response still needed from the Govt.

Risk: Have not received requested info from base

(Date) Sent email requested info again.
Example of Good Risk Documentation

Risk: Delayed Workplan due to increase of scope

1) Seismic issue was not identified in original scope of work. 2) Site Visit scheduled for 3/5/07, to gather info for evaluation. 3) Government Request a mod to incorporate seismic evaluation 3/30/07, work plan has not been issued because scope of work did not include seismic study.

4/27/07 Called KO no response, resolution date passed, new date 5/23/07. 6/01/07 Called and emailed KO still no response. Further delays, need mod for time extension. 6/08/07 Called KO still no response, NTP still needed, further delays. 6/15/07 Called and emailed KO still no response, NTP still needed. 6/22/07 Called KO still no response, need NTP and Time extension. 8/17/07 Called and emailed KO, still waiting, will close risk once granted.
• All awards and modifications need to be documented on the “Awards and Modifications” table.

• Each modification **must** have a corresponding risk. An approved mod is a resolved risk. The risk should have the exact same impact to cost and days. As shown above.

• The phase award amounts (SI, WP, Construction) do not need a correlating risk.

• Mods that decrease the project duration and cost do not need a corresponding risk.
Risk that should not go on the report

- Cannot coordinate with Subcontractors
- Vendor does not know correct working procedures
- Waiting on Designer to finish up WP documents
- Electrical subcontractor causing delays due to unfinished work.
RISK MANAGEMENT PLAN
- Risks that the vendor does not control
- Risk Schedule Items

WEEKLY REPORT
- Risk
- Unforeseen Risks

RISK ASSURANCE
- Checklist of Risks
- Sign and Date

PERFORMANCE SUMMARY
- Vendor Performance
- Client Performance
- Individual Performance
- Project Performance
Problems that have occurred

• FM/representatives needs to minimize their control.
  – Thinking the project is going bad and the project actually going bad are two different things

• Most problems are caused by not following the system

• Improper Documentation (Did not do a RMP and Weekly Risk Report is not done correctly)

• FM needs to respond at the right time
Exercise #1

• Conditions:
  – Risks were not identified in the beginning
  – FM is worried that contractor will not be successful
  – FM is trying to direct, control, and inspect the contractor
  – Contractor must go through FM to schedule any activity on post

• Solution?
Potential solution

• Contractor should immediately set entire schedule on weekly report

• Contractor should identify risks in the beginning
Exercise #2: What should go on the weekly?

Today’s date: 1/04/08

<table>
<thead>
<tr>
<th>#</th>
<th>Schedule</th>
<th>Dates Due</th>
<th>Actual Days Late</th>
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<tbody>
<tr>
<td>1</td>
<td>Interim Work Plan Submittal</td>
<td>9/21/2007</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Government Comments on Interim WP</td>
<td>11/13/2007</td>
<td>18</td>
</tr>
<tr>
<td>3</td>
<td>Preliminary Work Plan Submittal</td>
<td>11/28/2007</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>Government Comments on Prelim Work Plan</td>
<td>12/12/2007</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>Final Work Plan Submittal</td>
<td>12/21/2007</td>
<td>23</td>
</tr>
<tr>
<td>6</td>
<td>Government Back Check Review</td>
<td>1/15/2008</td>
<td>13</td>
</tr>
<tr>
<td>7</td>
<td>Begin Repair Effort (TO wording)</td>
<td>12/22/07</td>
<td>6</td>
</tr>
<tr>
<td>8</td>
<td>Begin Repair/Renewal</td>
<td>12/27/07</td>
<td>60</td>
</tr>
<tr>
<td>9</td>
<td>Final Approval</td>
<td>05/02/08</td>
<td>?</td>
</tr>
<tr>
<td>10</td>
<td>Closeout Survey</td>
<td>06/01/08</td>
<td>?</td>
</tr>
</tbody>
</table>

QA believes the project will be: 63 days late  
Contractor put on the weekly report the project will be: 16 days late  
Problem: QA wants to know, what should go on the weekly report
Optimal Answer

• Weekly schedule should show actual vs schedule

• Contractor should be counting days (days they were late and days government is late) this should be in the risk block on “not on schedule”

• Contractor should also include how they will minimize the numbers of days late that they caused

• Contractor is not responsible for government delays

• It is in the best interest of both parties to get their responsibilities done
Exercise #3: QA wants the following on the weekly report due to subcontractor personnel being on the site without badging.

Risk: Coordination of Construction Activities

Plan to minimize risk:
1) Contractor onsite w/o being properly badged. Sub not briefed on existing conditions or operational procedures. 2) Sub to sign in a job trailer for inbrief & badging. 3) Vendor 4) Security Issues/Physical Damage

Contractor claims that QA let unbadged personnel on the site.
PERFORMANCE MEASUREMENTS

MEDCOM New QC System
Medcom assistance to contractors

• Use response times and on the top 10 lists to encourage COE to respond quicker

• This is the first usage of such information to highlight inefficiencies in the program
### Division Overview

#### Division Overview

<table>
<thead>
<tr>
<th></th>
<th>10/05/07</th>
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<tbody>
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<td>Total Awarded Budget</td>
<td>$264,769,732.86</td>
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<tr>
<td>Current Cost</td>
<td>$291,208,018.26</td>
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<tr>
<td>Over Budget</td>
<td>$26,438,285.40</td>
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#### Project Overview

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Projects</td>
<td>139</td>
</tr>
<tr>
<td>% Projects On Time</td>
<td>52%</td>
</tr>
<tr>
<td># of Jobs Delayed</td>
<td>67</td>
</tr>
<tr>
<td>% Projects On Budget</td>
<td>60%</td>
</tr>
<tr>
<td># of Jobs Over Awarded Budget</td>
<td>55</td>
</tr>
<tr>
<td># of Projects Missing Owner Ratings</td>
<td>7</td>
</tr>
</tbody>
</table>

#### Average Project

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Budget</td>
<td>$1,904,818.22</td>
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<tr>
<td># of Risks per Job</td>
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<tr>
<td>Owner Generated Risks</td>
<td>0.96</td>
</tr>
<tr>
<td>Number of overdue risks</td>
<td>0.68</td>
</tr>
<tr>
<td>% Over Awarded Budget</td>
<td>10%</td>
</tr>
<tr>
<td>% over budget due to owner</td>
<td>8.35%</td>
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<tr>
<td># of Days Delayed</td>
<td>70.58</td>
</tr>
<tr>
<td># of days delayed due to owner</td>
<td>58.06</td>
</tr>
<tr>
<td>Owner Rating</td>
<td>8.87</td>
</tr>
<tr>
<td>Risk Number</td>
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## Current Project Performance

### OVERVIEW OF PROJECTS

<table>
<thead>
<tr>
<th></th>
<th>Contractor 7</th>
<th>Contractor 2</th>
<th>Contractor 3</th>
<th>Contractor 4</th>
<th>Contractor 5</th>
<th>Contractor 6</th>
<th>Contractor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Awarded Budget</strong></td>
<td>$4,381,204</td>
<td>$15,034,914</td>
<td>$53,153,957</td>
<td>$49,489,199</td>
<td>$71,054,084</td>
<td>$6,096,004</td>
<td>$65,560,371</td>
</tr>
<tr>
<td><strong>Current Cost</strong></td>
<td>$4,549,758</td>
<td>$15,241,904</td>
<td>$53,786,252</td>
<td>$68,305,600</td>
<td>$74,198,483</td>
<td>$9,463,565</td>
<td>$65,662,454</td>
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</tbody>
</table>

### AVERAGE PROJECT

<table>
<thead>
<tr>
<th></th>
<th>Contractor 7</th>
<th>Contractor 2</th>
<th>Contractor 3</th>
<th>Contractor 4</th>
<th>Contractor 5</th>
<th>Contractor 6</th>
<th>Contractor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong># of Risks per Job</strong></td>
<td>2.33</td>
<td>0.93</td>
<td>0.62</td>
<td>2.50</td>
<td>1.67</td>
<td>1.10</td>
<td>1.14</td>
</tr>
<tr>
<td><strong>Owner Generated Risks</strong></td>
<td>1.83</td>
<td>0.86</td>
<td>0.51</td>
<td>2.00</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Number of overdue risks</strong></td>
<td>0.00</td>
<td>0.29</td>
<td>0.14</td>
<td>2.64</td>
<td>0.31</td>
<td>3.10</td>
<td>0.32</td>
</tr>
<tr>
<td><strong>% Over Awarded Budget</strong></td>
<td>3.85%</td>
<td>1.36%</td>
<td>1.19%</td>
<td>38.02%</td>
<td>4.43%</td>
<td>55.24%</td>
<td>0.16%</td>
</tr>
<tr>
<td><strong>% over budget due to owner</strong></td>
<td>2.19%</td>
<td>1.38%</td>
<td>1.09%</td>
<td>38.02%</td>
<td>3.23%</td>
<td>54.59%</td>
<td>0.15%</td>
</tr>
<tr>
<td><strong># of Days Delayed</strong></td>
<td>156.83</td>
<td>37.93</td>
<td>50.89</td>
<td>48.29</td>
<td>109.97</td>
<td>23.20</td>
<td>72.23</td>
</tr>
<tr>
<td><strong># of days delayed due to owner</strong></td>
<td>96.83</td>
<td>37.21</td>
<td>47.00</td>
<td>43.29</td>
<td>80.11</td>
<td>16.50</td>
<td>71.55</td>
</tr>
<tr>
<td><strong>Owner Rating</strong></td>
<td>8.39</td>
<td>8.54</td>
<td>8.32</td>
<td>8.50</td>
<td>9.01</td>
<td>9.99</td>
<td>9.67</td>
</tr>
<tr>
<td><strong>Risk Number</strong></td>
<td>4.51</td>
<td>3.80</td>
<td>3.55</td>
<td>3.36</td>
<td>3.15</td>
<td>1.97</td>
<td>1.69</td>
</tr>
</tbody>
</table>
# MEDCOM Best Value Risk Management

## Completed Projects Performance

### Total Number of Completed Projects: 53

<table>
<thead>
<tr>
<th>CONTRACTOR OVERVIEW</th>
<th>Contractor 4</th>
<th>Contractor 1</th>
<th>Contractor 2</th>
<th>Contractor 3</th>
<th>Contractor 6</th>
<th>Contractor 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Awarded Budget</td>
<td>$7,191,078.93</td>
<td>$4,672,873.60</td>
<td>$5,475,669.15</td>
<td>$26,608,997.61</td>
<td>$5,602,517.30</td>
<td>$433,960.00</td>
</tr>
<tr>
<td>Current Cost</td>
<td>$7,191,078.93</td>
<td>$4,732,480.35</td>
<td>$5,924,569.83</td>
<td>$26,608,997.61</td>
<td>$5,699,381.30</td>
<td>$433,960.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OVERVIEW OF PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Projects</td>
</tr>
<tr>
<td>% Projects On Time</td>
</tr>
<tr>
<td># of Jobs Delayed</td>
</tr>
<tr>
<td>% Projects On Budget</td>
</tr>
<tr>
<td># of Jobs Over Awarded Budget</td>
</tr>
</tbody>
</table>

### AVERAGE PROJECT

| # of Risks per Job | 1.20 | 1.33 | 4.05 | 1.67 | 7.25 | 0.00 |
| Owner Generated Risks | 1.20 | 1.11 | 2.11 | 1.47 | 3 | 0 |
| Number of overdue risks | 0.00 | 0.00 | 0.11 | 0.00 | 3.00 | 0.00 |
| % Over Awarded Budget | 0.00% | 1.64% | 16.81% | 0.00% | 1.65% | 0.00% |
| % over budget due to owner | 0.00% | 1.64% | 15.62% | 0.00% | 1.30% | 0.00% |
| # of Days Delayed     | 22.40 | 101.67 | 25.95 | 12.20 | 3.75 | 0.00 |
| # of days delayed due to owner | 22.40 | 99.56 | 18.79 | 12.20 | 3.75 | 0.00 |
| Owner Rating          | 9.00 | 10.00 | 9.74 | 9.87 | 10.00 | 10.00 |
| Risk Number           | 3.12 | 1.64 | 1.62 | 1.19 | 1.02 | 1.00 |

As of 11 February 2008
## Completed Projects Customer Satisfaction

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Contractor 4</th>
<th>Contractor 1</th>
<th>Contractor 2</th>
<th>Contractor 3</th>
<th>Contractor 6</th>
<th>Contractor 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to manage the project cost</td>
<td>9.33</td>
<td>9.71</td>
<td>9.22</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Ability to maintain project schedule</td>
<td>9.33</td>
<td>9.71</td>
<td>9.44</td>
<td>9.80</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Quality of workmanship</td>
<td>9.33</td>
<td>9.29</td>
<td>9.44</td>
<td>9.80</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Professionalism</td>
<td>9.00</td>
<td>9.57</td>
<td>9.67</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Close out process</td>
<td>9.00</td>
<td>9.00</td>
<td>9.56</td>
<td>9.90</td>
<td>10.00</td>
<td>9.00</td>
</tr>
<tr>
<td>Communication, explanation, and documentation</td>
<td>10.00</td>
<td>9.83</td>
<td>9.75</td>
<td>9.61</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Ability to follow the users rules and requirements</td>
<td>9.33</td>
<td>9.86</td>
<td>9.78</td>
<td>9.60</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>Overall customer satisfaction</td>
<td>9.67</td>
<td>9.71</td>
<td>9.89</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
</tr>
<tr>
<td>PERCENT Surveyed</td>
<td>60%</td>
<td>78%</td>
<td>47%</td>
<td>67%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td># of Surveys Received</td>
<td>3</td>
<td>7</td>
<td>9</td>
<td>10</td>
<td>2</td>
<td>1</td>
</tr>
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</table>

As of 11 February 2008
### Contractor “Top 10 Risk” Statistics

<table>
<thead>
<tr>
<th>No.</th>
<th>Contractor</th>
<th>Number of Projects</th>
<th>Average Rank</th>
<th>Average # Weeks on Top Ten List</th>
<th>Average Risk #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Contractor 1</td>
<td>15</td>
<td>7.0</td>
<td>3.20</td>
<td>10.96</td>
</tr>
<tr>
<td>2</td>
<td>Contractor 2</td>
<td>6</td>
<td>5.8</td>
<td>5.33</td>
<td>12.37</td>
</tr>
<tr>
<td>3</td>
<td>Contractor 3</td>
<td>4</td>
<td>7.0</td>
<td>2.00</td>
<td>11.51</td>
</tr>
<tr>
<td>4</td>
<td>Contractor 4</td>
<td>4</td>
<td>5.0</td>
<td>5.50</td>
<td>12.33</td>
</tr>
<tr>
<td>5</td>
<td>Contractor 5</td>
<td>3</td>
<td>2.0</td>
<td>3.33</td>
<td>39.31</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL AVERAGE:</strong></td>
<td></td>
<td><strong>3.9</strong></td>
<td><strong>17.3</strong></td>
<td></td>
</tr>
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</table>

As of 11 February 2008
### PM “Top 10 Risk” Statistics

<table>
<thead>
<tr>
<th>No.</th>
<th>PM</th>
<th>Number of Projects</th>
<th>Average Rank</th>
<th>Average Weeks on Top Ten List</th>
<th>Average Risk #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PM 1</td>
<td>6</td>
<td>5.5</td>
<td>3.00</td>
<td>12.19</td>
</tr>
<tr>
<td>2</td>
<td>PM 2</td>
<td>5</td>
<td>6.2</td>
<td>3.80</td>
<td>11.50</td>
</tr>
<tr>
<td>3</td>
<td>PM 3</td>
<td>3</td>
<td>2.7</td>
<td>3.67</td>
<td>39.13</td>
</tr>
<tr>
<td>4</td>
<td>PM 4</td>
<td>3</td>
<td>5.3</td>
<td>2.33</td>
<td>13.30</td>
</tr>
<tr>
<td>5</td>
<td>PM 5</td>
<td>3</td>
<td>9.3</td>
<td>3.00</td>
<td>9.41</td>
</tr>
<tr>
<td>6</td>
<td>PM 6</td>
<td>2</td>
<td>4.5</td>
<td>4.00</td>
<td>13.08</td>
</tr>
<tr>
<td>7</td>
<td>PM 7</td>
<td>2</td>
<td>7.0</td>
<td>6.00</td>
<td>12.23</td>
</tr>
<tr>
<td>8</td>
<td>PM 8</td>
<td>2</td>
<td>6.0</td>
<td>2.00</td>
<td>10.52</td>
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<tr>
<td>9</td>
<td>PM 9</td>
<td>1</td>
<td>4.0</td>
<td>1.00</td>
<td>12.05</td>
</tr>
<tr>
<td>10</td>
<td>PM 10</td>
<td>1</td>
<td>4.0</td>
<td>6.00</td>
<td>12.00</td>
</tr>
<tr>
<td>11</td>
<td>PM 11</td>
<td>1</td>
<td>4.0</td>
<td>6.00</td>
<td>12.00</td>
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<td>12</td>
<td>PM 12</td>
<td>1</td>
<td>10.0</td>
<td>3.00</td>
<td>9.64</td>
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</table>

**TOTAL AVERAGE:**
- Average Rank: **3.7**
- Average Risk #: **13.9**
## PI “Top 10 Risk” Statistics

<table>
<thead>
<tr>
<th>No.</th>
<th>PI</th>
<th>Number of Projects</th>
<th>Average Rank</th>
<th>Average Weeks on Top Ten List</th>
<th>Average Risk #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PI 1</td>
<td>8</td>
<td>7.0</td>
<td>2.75</td>
<td>10.49</td>
</tr>
<tr>
<td>2</td>
<td>PI 2</td>
<td>6</td>
<td>6.0</td>
<td>4.30</td>
<td>24.37</td>
</tr>
<tr>
<td>3</td>
<td>PI 3</td>
<td>5</td>
<td>7.4</td>
<td>5.00</td>
<td>10.84</td>
</tr>
<tr>
<td>4</td>
<td>PI 4</td>
<td>4</td>
<td>4.3</td>
<td>3.25</td>
<td>13.50</td>
</tr>
<tr>
<td>5</td>
<td>PI 5</td>
<td>4</td>
<td>6.5</td>
<td>3.75</td>
<td>11.78</td>
</tr>
<tr>
<td>6</td>
<td>PI 6</td>
<td>3</td>
<td>3.7</td>
<td>3.33</td>
<td>14.47</td>
</tr>
<tr>
<td>7</td>
<td>PI 7</td>
<td>1</td>
<td>4.0</td>
<td>1.00</td>
<td>12.05</td>
</tr>
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<td>8</td>
<td>PI 8</td>
<td>1</td>
<td>7.0</td>
<td>8.00</td>
<td>10.97</td>
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**TOTAL AVERAGE:**

<table>
<thead>
<tr>
<th>Average Weeks on Top Ten List</th>
<th>Average Risk #</th>
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<tbody>
<tr>
<td>3.9</td>
<td>13.6</td>
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</table>
### MST “Top 10 Risk” Statistics

<table>
<thead>
<tr>
<th>No.</th>
<th>MST</th>
<th>Number of Projects</th>
<th>Average Rank</th>
<th>Average Weeks on Top Ten List</th>
<th>Average Risk #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MST 1</td>
<td>19</td>
<td>6.1</td>
<td>3.7</td>
<td>11.5</td>
</tr>
<tr>
<td>2</td>
<td>MST 2</td>
<td>10</td>
<td>5.1</td>
<td>4.1</td>
<td>20.5</td>
</tr>
<tr>
<td>3</td>
<td>MST 3</td>
<td>3</td>
<td>9.3</td>
<td>3</td>
<td>9.4</td>
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</table>

**TOTAL AVERAGE:**

3.6  

13.8
<table>
<thead>
<tr>
<th>No.</th>
<th>Project</th>
<th>Location</th>
<th>Risk #</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Rpr/Rpl Elec Distr Sys, OMAMC</td>
<td>Fort Lewis, WA</td>
<td>20.62</td>
</tr>
<tr>
<td>2</td>
<td>Fault Current &amp; Over Dev CS</td>
<td>Ft. Leonard Wood, MO</td>
<td>14.43</td>
</tr>
<tr>
<td>3</td>
<td>Renew Nutrition Care Directorates</td>
<td>Fort Carson, CO</td>
<td>13.25</td>
</tr>
<tr>
<td>4</td>
<td>Renew Nutrition Care Directorates</td>
<td>Fort Hood, TX</td>
<td>13.15</td>
</tr>
<tr>
<td>5</td>
<td>Miscellaneous Project 06</td>
<td>Fort Gordon, GA</td>
<td>12.87</td>
</tr>
<tr>
<td>6</td>
<td>Renew Nutrition Care Directorates</td>
<td>see individual reports</td>
<td>12.24</td>
</tr>
<tr>
<td>7</td>
<td>Renew Irwin Army Community Hospital</td>
<td>Ft. Riley KS.</td>
<td>12.06</td>
</tr>
<tr>
<td>8</td>
<td>Rehab Boiler #1 - Building 15</td>
<td>Walter Reed Army Medical Center</td>
<td>11.69</td>
</tr>
<tr>
<td>9</td>
<td>Renew Nutrition Care Directorates</td>
<td>Fort Campbell, KY</td>
<td>11.45</td>
</tr>
<tr>
<td>10</td>
<td>Various Projects</td>
<td>Naval Medical Center San Diego, CA</td>
<td>11.07</td>
</tr>
<tr>
<td>11</td>
<td>Construct Office Enclosure 1054</td>
<td>Ft Detrick, MD</td>
<td>10.65</td>
</tr>
<tr>
<td>12</td>
<td>CHPPM-Design for Two HVAC(s) &amp; Win</td>
<td>Aberdeen Proving Grounds, MD</td>
<td>9.77</td>
</tr>
<tr>
<td>13</td>
<td>Medical Clinic Renovations</td>
<td>Barksdale AFB, LA</td>
<td>9.76</td>
</tr>
<tr>
<td>14</td>
<td>Convert Constant Volume to VAV</td>
<td>WRAIR</td>
<td>9.50</td>
</tr>
<tr>
<td>15</td>
<td>Renew Dental Clinic #3</td>
<td>Ft Lewis, WA</td>
<td>8.10</td>
</tr>
<tr>
<td>16</td>
<td>FY06 DHP Pkg T-43 REPLACE AHU 3A</td>
<td>TAMC</td>
<td>7.96</td>
</tr>
<tr>
<td>17</td>
<td>Bathroom Addition, Bldg 320</td>
<td>Tripler AMC, Hawaii</td>
<td>7.41</td>
</tr>
<tr>
<td>18</td>
<td>Emergency Generator</td>
<td>Ft Jackson, SC</td>
<td>7.40</td>
</tr>
<tr>
<td>19</td>
<td>Bldg. 38711 Add SERMC Bldg.</td>
<td>Fort Gordon, GA</td>
<td>7.33</td>
</tr>
<tr>
<td>20</td>
<td>Replace Elevator Drive Systems, Bldg 9</td>
<td>Fort Benning, GA</td>
<td>7.20</td>
</tr>
</tbody>
</table>
MEDCOM movement toward efficiency

- Better use of resources

- Increasing requirements, decreasing resources

- Using the IMT philosophy to increase efficiency of their structures

- Use performance information to motivate an increase in performance to be on time, and on budget
Medcom Changes using PIPS

- Medcom internal performance rating on all components
- Track on time, on budget, change order rates on all projects
- Track response times from government on all critical issues
- Force the scheduling of all tasks and all participants from site investigation to construction completion
- Integration of a risk management plan and a weekly risk report
- Educate contractors on best business practices
Desired Results

• Empowers contractors to drive efficiency

• Holds all parties accountable for fulfilling their responsibilities

• Allows effective communication between the owner and contractor

• Enforces the identification and minimization of risk to increase project performance
Conclusions

• Weekly report and risk management plan must be kept and modified throughout the project

• Weekly report only lists risks that happen

• Schedule is set from the beginning of schedule
Solution to Manpower Issues

• Don’t make decisions, don’t direct contractors, let them do their work

• RMP

• Weekly Reports

• Don’t hire contractors who do not do their work