Team Members:

USAF Problem-Solving Process

OODA – **O**bserve, **O**rient, **D**ecide, & **A**ct
8-Step Problem Solving Process

Approval Information/Signatures

1. Clarify & Validate the Problem

O O D A

2. Break Down the Problem/Identify Performance Gaps

O O D A

3. Set Improvement Target

O O D A

4. Determine Root Cause

O O D A

5. Develop Countermeasures

O O D A

6. See Countermeasures Through

O O D A

7. Confirm Results & Process

O O D A

8. Standardize Successful Processes

O O D A

OODA – **O**bserve, **O**rient, **D**ecide, & **A**ct
8-Step Problem Solving Process

USAF Problem-Solving Process & Related Toolsets

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1. Clarify & Validate the Problem

O O D A

a. Does this problem, when solved, help meet needs identified by the organization?
   - Is it linked to the SA&D of organization?
   - Does it help satisfy customer needs (VOC)?

b. Does this problem, when solved, address key issues identified during SWOT analysis?

c. Has this problem been identified and directed by a Value Stream Map at the appropriate level?
   - What does the "Future State" need?
   - What resources have been identified to address this issue?

d. What opportunities were identified or observed by the process or problem area "walk"?
   - Will addressing or improving these issues deliver results that relate to #a or #b?
   - Will addressing or improving this problem deliver the desired future state from #c?

TOOLS: SA&D, Voice of Customer, VSM, Go & See

2. Break Down the Problem/ Identify Performance Gaps

O O D A

a. Does the problem require more analysis or does leadership have enough information to execute a solution?
   - Is this simply a leadership directive?

b. If more data is needed, how do we measure performance now?
   - What are the KPIs? What is the performance gap?

c. Does other "non-existent" data need to be gathered?

d. What does the data indicate are the potential root causes?

e. Does the data review indicate a bottleneck or constraint?

TOOLS: KPI/Metrics, Performance Gap Analysis, Bottleneck Analysis

3. Set Improvement Target(s)

O O D A

a. Is the improvement target measurable? Is it concrete? Is it challenging?

b. Is the target "Output Oriented"?
   - What is the desired output?
   - Should be "things to achieve"; should avoid "things to do"
     -- Will be addressed by Action Plans (Step 5)

c. The desired target should:
   - Do what? By how much? By when?

d. If it is a Process Problem, what is the future state?
   - How will it be realized?

TOOLS: Ideal State, Future State Mapping, B-SMART

4. Determine Root Cause

O O D A

a. What root cause analysis tools are necessary?
   - Why are these tools necessary?
   - What benefit will be gained by using them?
   - Who will need to be involved in the root cause analysis?
     -- 10 heads are better than one
     -- Remember "cultural" issues related to problem

b. What is (are) the root cause(s) according to the tools?

c. How will the root cause be addressed?

d. Will addressing these address the performance gap?

e. Can the problem be turned on or off by addressing the root cause?

f. Does the root cause make sense if the 5 Whys are worked in reverse?
   - Working in reverse, say "therefore" between each of the "whys"

TOOLS: 5 Whys, Brainstorming, Pareto, Affinity, Fishbone, Control Charts

5. Develop Countermeasures

O O D A

a. Develop potential countermeasures
   - Tools and philosophies from Lean, TOC, 6 Sigma and BPR as appropriate

b. Select the most practical and effective countermeasures

c. Build consensus with others by involving all stakeholders appropriately
   - Communicate, communicate, communicate

d. Create clear and detailed action plan
   - B-SMART actions
   - Reference Facilitation Techniques as appropriate

TOOLS: A3, Action Plans, Timelines, Financial Reporting Template

6. See Countermeasures Through

O O D A

a. Which philosophy best prescribes tools that address root cause(s)?

b. Which tools best address root cause(s)?

c. Which method for implementation fits the tool and improvement need?
   - Rapid Improvement Event?
   - Improvement Project?
   - Point Improvement or "Just Do It"?

d. If RIE or Project, create "Charter" and communicate

e. What training or education is needed? By Whom?

TOOLS: 6S & Visual Mgt, Standard Work, Cell Design, Variation Reduction, Error Proofing, Quick Changeover, TPM, RIE

7. Confirm Results & Process

O O D A

a. How are we performing relative to the Observe phase (Steps 1 & 2)?

b. How are we performing relative to Step 3?

c. How are we performing relative to Financial Reporting Template projections?

d. If we are not meeting targets, do we need to return to Step 4?
   - Most problem solving "breakdowns" occur relative to improper root cause identification

TOOLS: KPIs/Metrics, Performance Mgt, SA&D, Standard Work, Audit

8. Standardize Successful Processes

O O D A

a. What is needed to Standardize Improvements?
   - Tech Order changes?
   - Air Force Instruction changes?
   - Official Instruction changes?

b. How should improvements and lessons learned be communicated?
   - Continuous Process Improvement – Mgt Tool (CPI-MT a.k.a. PowerSteering)
   - Key meetings?

c. Were other opportunities or problems identified by the Problem Solving Process?
   - Restart OODA Loop

TOOLS: Checkpoints/Standardization Table, Report Out Theme Story, Broad Implementation, CPI Mgt Tool