

Team Members:

USAF Problem-Solving Process

OODA – Observe, Orient, Decide, & Act
8-Step Problem Solving Process

Approval Information/Signatures

1. Clarify & Validate the Problem ○ ○ **○** D A

4. Determine Root Cause ○ **○** D A

6. See Countermeasures Through ○ ○ D **○**

2. Break Down the Problem/Identify Performance Gaps ○ **○** D A

5. Develop Countermeasures ○ ○ **○** D A

7. Confirm Results & Process ○ ○ D **○**

3. Set Improvement Target ○ **○** D A

8. Standardize Successful Processes ○ ○ D **○**

OODA – Observe, Orient, Decide, & Act
8-Step Problem Solving Process

USAF Problem-Solving Process & Related Toolsets

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1. Clarify & Validate the Problem

O O D 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)?
- Does this problem, when solved, address key issues identified during SWOT analysis?
- 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?
- 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

- Does the problem require more analysis or does leadership have enough information to execute a solution?
 - Is this simply a leadership directive?
- If more data is needed, how do we measure performance now?
 - What are the KPIs? What is the performance gap?
- Does other “non-existent” data need to be gathered?
- What does the data indicate are the potential root causes?
- 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

- Is the improvement target measurable? Is it concrete? Is it challenging?
- 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)
- The desired target should:
 - Do what? By how much? By when?
- 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

- 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
- What is (are) the root cause(s) according to the tools?
- How will the root cause be addressed?
- Will addressing these address the performance gap?
- Can the problem be turned on or off by addressing the root cause?
- 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

- Develop potential countermeasures
 - Tools and philosophies from Lean, TOC, 6 Sigma and BPR as appropriate
- Select the most practical and effective countermeasures
- Build consensus with others by involving all stakeholders appropriately
 - Communicate, communicate, communicate
- 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

- Which philosophy best prescribes tools that address root cause(s)?
- Which tools best address root cause(s)?
- Which method for implementation fits the tool and improvement need?
 - Rapid Improvement Event?
 - Improvement Project?
 - Point Improvement or “Just Do It”?
- If RIE or Project, create “Charter” and communicate
- 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

- How are we performing relative to the Observe phase (Steps 1 & 2)?
- How are we performing relative to Step 3?
- How are we performing relative to Financial Reporting Template projections?
- 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

- What is needed to Standardize Improvements?
 - Tech Order changes?
 - Air Force Instruction changes?
 - Official Instruction changes?
- How should improvements and lessons learned be communicated?
 - Continuous Process Improvement – Mgt Tool (CPI-MT a.k.a. PowerSteering)
 - Key meetings?
- 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