

**ASSISTANT SECRETARY OF THE AIR FORCE
FOR ACQUISITION, TECHNOLOGY, AND
LOGISTICS**



**FISCAL YEAR 2022 CONTINUOUS PROCESS
IMPROVEMENT AND INNOVATION PLAN**

01 Oct 2021

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MEMORANDUM FOR SAF/AQ

FROM: ACQUISITION CHIEF PROCESS OFFICER

SUBJECT: Fiscal Year 2022 Assistant Secretary of the Air Force Acquisition, Technology, and Logistics (SAF/AQ) Continuous Process Improvement and Innovation (CPI²) Plan

References: (a) HAF MD 1-10, 02 Sep 16, Assistant Secretary of the Air Force (Acquisition); currently being rewritten
(b) AFI 1-2, 8 May 14, Commander's Responsibilities
(c) AFI 38-401, 23 Aug 19, Continuous Process Improvement (CPI); currently being rewritten and combined with AFI 38-402
(d) Master Process Officer Appointment Memorandum Delegation of Acquisition Chief Process Officer and Value Engineering Senior Management Official to SAF/AQXP Deputy Director, 21 Jan 2020; currently being updated

1. Per AFI 1-2 (ref. b), "Continuous process improvement [CPI] is a hallmark of highly successful organizations," and commanders, and by extension all Department of the Air Force (DAF) leaders, have a duty to improve their units. Additionally, the Air Force Vision cites innovation as the fuel for the World's Greatest Air Force. {XX} The Acquisition Excellence and Change-management Office (AECO) within the Acquisition Strategy and Plans Division (SAF/AQXP) is pleased to submit the attached SAF/AQ CPI Plan for FY22 to assist the Acquisition Enterprise in solving problems, creating opportunities, facilitating solutions, and leveraging resources to make DAF acquisition more efficient and effective.

2. Via compliance with the AF CPI/Lean Six Sigma (LSS) program described in AFI 38-401 (ref. c), evolution of the Acquisition Process Model (APM) and similar tailored tools, and providing excellent facilitation and advice to our stakeholders, the AECO will lead SAF/AQ in continually discovering and eliminating impediments to effective acquisition and decision-making. Our goal is to find ways to be more efficient, NOT to fight fires or place blame for problems or failures. We seek to learn what causes things to happen and then use this knowledge to reduce variation, eliminate non-value-added activities, and improve customer satisfaction. During FY22 and consistent with the CSAF direction to "Accelerate Change or Lose," we will continue to evolve CPI² services to current/new customers and further institutionalize the APM.

3. The document is organized in two primary sections: The Plan and Attachments. Building upon previous successes, the Plan outlines the specific efforts the AECO will concentrate on in FY22. These efforts include outreach, just-in-time training, and investing in process improvement activities. The Attachments contain information that describes the execution of the CPI² program. Execution and day-to-day operations of this plan is the responsibility of the AECO Chief. To learn more about the SAF/AQ CPI² execution and facilitation services, please visit our SharePoint Site at [Home - AQXP - Continuous Process Improvement \(dps.mil\)](http://afacpo.com/acpo/) and the DAF APM at <http://afacpo.com/acpo/>.

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INTRODUCTION

The focus for the Assistant Secretary of the Air Force Acquisition, Technology, and Logistics (SAF/AQ) Continuous Process Improvement (CPI²) Plan for Fiscal Year (FY) 2022 continues to be on creating customer-driven, process-based, results-oriented themes for becoming more effective and efficient in solving problems, executing smart business decisions, improving acquisition cycle time, and increasing process throughput. The FY22 SAF/AQ CPI² Plan defines how Air Force CPI² execution will develop and implement solutions designed to reduce inefficiencies. This effort aligns with the CSAF's four Action Orders:

- Airmen;
- Bureaucracy;
- Competition; and
- Design Implementation ([CSAF Action Orders](#))



The SAF/AQ CPI² Plan also supports SAF/AQX priorities as derived from SAF/AQ priorities:

- Protect/Expand the AF Industrial Base;
- Provide Integrated Acquisition Execution Oversight;
- Influence the AF Enterprise and AQX as the Workplace of Choice.

Consistent with HAF MD 1-10 *Assistant Secretary of the Air Force (Acquisition) (ref. a)*, SAF/AQX, leveraging the AECO, “leads AQ’s strategic management efforts, lessons learned processes, enterprise-wide continuous process improvement program, value engineering, and implements acquisition change management.”

APPROACH TO FY22 CPI² DEPLOYMENT

The Acquisition Excellence and Change-management Office (AECO) within the Acquisition Strategy and Plans Division (SAF/AQXP), designs, approves, maintains, standardizes, analyzes, executes, and monitors CPI² for the Air Force acquisition enterprise. In this role, the team execute the following:

1. Lead and establish the requirements for the SAF/AQ CPI² program.
2. Lead CPI² strategic planning, establish goals, objectives, and measures.
3. Lead CPI² support for DAF three letter level or above initiatives requiring SAF/AQ resources.
4. Craft CPI² messages and manage CPI² communications.
5. Provide training on the application of CPI² tools and techniques.
6. Maintain the Acquisition Process Model (APM) as the DAF’s authoritative tool to capture approved processes.
7. Lead the SAF/AQ Value Engineering (VE) Program consistent with DoD direction (on hold as of the issue date of this plan).
8. Certify and mentor CPI² practitioners.
9. Review relevant publications for process improvement and innovation opportunities.
10. Champion the development, maintenance, and utilization of the AQX Playbook as an expansion of the APM for documenting AQX processes and procedures.

The CPI² priorities are as follow:

1. **Empower Stakeholders to Effect Change** – As a team, we must continue to cultivate relationships and transparency through communications and collaboration with our stakeholders. With the objective to gain a better understanding of what the acquisition enterprise needs to become more efficient and effective, we must help our stakeholders at all levels accomplish their missions using all the tools at our disposal.
2. **Foster CPI² Culture** – We must share successes and benefits with our stakeholders to demonstrate the utility and value.
3. **Prove the Value of CPI²** – We must demonstrate with meaningful metrics that CPI² can create successes/improve enterprise performance and thus create a culture that values CPI².
4. **Provide Excellent CPI² Facilitation and Documentation** – As the core of the CPI² execution process and the foundation for communicating our results, we must “practice what we preach” as we conduct CPI² activities and continuously strive to better our performance using the tools and techniques that best suit each facilitation effort.

2022 SAF/AQ CPI GOALS

SAF/AQXP will execute the FY22 SAF/AQ CPI² Plan to achieve the following goals.

- 1) Publish Acquisition CPI² Plan (1st Qtr FY22)
- 2) Publish CPI² Report (quarterly)
- 3) Conduct 5-7 CPI² events at 3ltr or higher level impact
 - a. Publish results/impact in Gazette
 - b. Submit entities involved for appropriate AF level awards (as eligible)
- 4) Publish updated APMWG charter (1st Qtr FY22)
- 5) Facilitate 1-3 APMWG meetings (2nd – 4th Qtr FY22)
 - a. Publish minutes (1-3)
 - b. Integrate recommendations from APMWG within 90 days (as applicable)
- 6) Provide minimum of 35 APM training opportunities
 - a. # of new participants, # of participants to date
 - b. Improvements made to APM from field recommendations – # of policy changes
- 7) Provide minimum of 35 CPI² learning opportunities
 - a. # of new participants, # of participants to date
 - b. # enrolled/completed Greenbelt e-learning
- 8) Update APM weekly, push note to the field for changes made - monthly.
- 9) AQX Playbook.
 - a. All AQX level administrative processes captured by 3rd Quarter CY2022
 - b. All AQX level processes (APM cross-referenced) captured by 3rd Quarter CY2022
 - c. 80% of all RegAF, Federal Civilians oriented (Monthly snapshot)
 - d. Provide tips/tools blurb for field on utility of Playbook (bi-weekly).

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ATTACHMENTS

The remaining sections of this document contain information related to the operations of the SAF/AQ CPI² Program. This information is reviewed on an annual basis for currency.

- Attachment 1: [Roles, Responsibilities, and Expectations](#)
- Attachment 2: [CPI² Execution Process](#)
- Attachment 3: [AF CPI² Training and Certification](#)
- Attachment 4: [Business Case Development](#)
- Attachment 5: [CPI² Communication Plan](#)
- Attachment 6: [CPI² Terms and Techniques](#)
- Attachment 7: [FY22 SAF/AQX CPI² Points of Contact](#)
- Attachment 8: [References & Acronyms](#)

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ATTACHMENT 1

ROLES, RESPONSIBILITIES, AND EXPECTATIONS

Implementing SAF/AQ CPI² successfully will take a combined effort across the acquisition enterprise. The descriptions below summarize the basic contributions required of each group. All acquisition professionals will fall into one or more of these categories.

SAF/AQ, SAF/AQX, and subordinate acquisition leadership – Independent of the CPI² Execution Process, acquisition leaders at all levels must clearly articulate their organization’s goals, demonstrating consideration for and alignment with the goals articulated at higher levels.

Prior to authorizing a CPI² activity, acquisition leaders who serve as “champion” for CPI² events are required to define the benefits the CPI² activity is anticipated to generate. This information is documented in the [CPI Project Charter](#).

Leaders should, as a minimum, serve as informed consumers of CPI² products and services. They should be active advocates who set high expectations of their teams tasked with implementing CPI² projects. The success of any CPI² program hinges on leadership’s: (1) Support; (2) Clearly defined objectives; and (3) Attention to the projects’ progress.

Finally, leaders must articulate their CPI² needs, the level of organic expertise they wish to maintain, and the resources they intend to invest to achieve their desired CPI² capabilities and outcomes. Leaders should appoint CPI² experts by name, support them throughout their certification process, and effectively employ them as advisor(s), facilitator(s), and trainer(s) upon certification. Per AFI 38-401, it is recommended that each Functional Directorate, Capability Directorate, and PEO should have at least one certified CPI practitioner.

SAF/AQX – Allocates resources to fully execute the acquisition enterprise’s CPI² programs. Provide SAF/AQ with actionable needs and updates on present CPI² status. Extends CPI² expertise to those efforts that link to the Acquisition Enterprise.

SAF/AQXP – With overall strategic direction from the Acquisition Chief Process Officer (AcqCPO), the AECO Chief provides operational oversight of the CPI² program.

Acquisition Professionals – Acquisition Professionals will be encouraged to bring forth process improvement ideas for consideration. Every member has the potential to improve processes. CPI² awareness and training will enable those professionals to recognize improvement opportunities.

ATTACHMENT 2

CPI² EXECUTION PROCESS

SAF/AQ CPI² Process is designed for agility, scalability, and results, allowing for consistent implementation by any CPI² expert across the acquisition enterprise. The diagram below is derived from the [APM 1.5.4.10 Execute Acquisition CPI](#) and represents the overall SAF/AQ CPI² management and the Rapid Improvement Event (RIE) Execution subset.

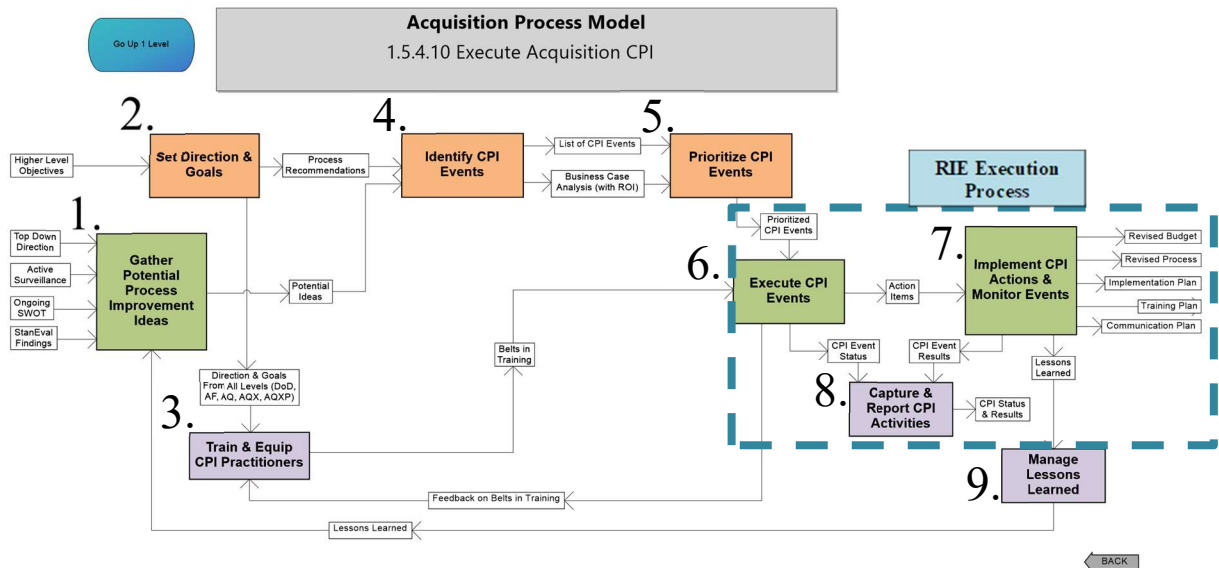


Figure 1: CPI² Execution Process

The **RIE Execution Process** encompasses those activities specific to CPI² events executed by the AECO.

CPI² execution process steps include the following:

1. **Gather Potential Process Improvement Ideas** – Collect ideas for potential CPI² events from a variety of sources, such as leadership direction and external recommendations.
2. **Set Direction and Goals** – Leaders in every organization are responsible for articulating the vision, mission, goals, objectives, etc., and publishing them as appropriate. This step establishes the need to capture that information as the foundation for CPI² activities.
3. **Train and Equip CPI² Practitioners** – Along with goals, having a cadre of certified experts is another foundational element for a successful CPI² program. This step captures the need to train and mentor Air Force CPI² facilitators, while collaborating with other organizations to leverage resources or fund a contract to provide the required expertise. More information about CPI² Certification and Training can be found in Attachment 3: **AF CPI² Training and Certification**.
4. **Identify CPI² Events** – Recognizing ideas for CPI² can come from anywhere and must be collected and organized to enable action. SAF/AQXP will maintain a repository of these

ideas in the SharePoint Site listed in Attachment 8. The CPI² process recommends starting at least 30 days in advance of an event. The Team Lead will meet with the facilitation team and lay out the way forward (to include approved scoping document, **Attachment 4**) in preparation for the event.

5. **Prioritize CPI² Events** – Resource constraints of time, personnel, and funds necessitate a prioritization determination; there are more problems than there are experts available to assist teams. The AECO Chief decides which ideas to pursue and when, using the chain of command and existing bodies to make investment decisions as required.
6. **Execute CPI² Events** – Executing CPI² events entails the planning, training, facilitating, and documenting of CPI² activities using the appropriate tools and methodologies. The team lead and the facilitation team will:
 - a. Complete the scoping documents
 - b. Conduct pre-meetings to develop an event plan
 - c. Develop and discuss and execute homework and pre-meeting activities
 - d. Identify tools, techniques, and measures of success for the event
 - e. Produce post-event write-up
 - f. Capture meaningful metrics
7. **Implement CPI² Actions and Monitor Events** – Available in the SharePoint site referenced in Attachment 8, the developed solution set will be documented in a CPI² implementation plan, capturing how the solution improved (or did not improve) the subject process over time.
8. **Capture and Report CPI² Activities** – Appropriate documentation of SAF/AQ CPI² events maintained in the SharePoint site referenced in Attachment 8. The facilitation team will capture all meeting artifacts and tools. The team will provide the outbrief from the meeting to the group no later than 48 hours following the end of the meeting. The team may conduct a follow-up telecon with the team the week following the meeting to discuss any further additions or actions. The AECO team will summarize the event using the AF Practical Problem-Solving Method.
9. **Manage CPI² Lessons Learned** – The AECO team has the responsibility for maintaining a process improvement lessons learned repository and sharing the information as appropriate.

ATTACHMENT 3

AF CPI² TRAINING AND CERTIFICATION

Training is critical for effective CPI² employment. All personnel should be afforded the opportunity to attend AF CPI² training. However, any personnel that have not received AF CPI² training and find they are part of a SAF/AQ event will receive Just-in-Time CPI training.

To support SAF/AQ CPI² implementation, SAF/AQXP maintains a cadre of AF CPI² experts. These experts are an essential AF CPI support mechanism and enable execution through process understanding, facilitation, documentation, and mentorship.

SAF/MG is responsible for providing standardized AF CPI² training material, whether made available online or taught by approved Black Belt-level instructors. SAF/MG will provide the training venue and remain responsible for the overall AF CPI² certification policy.

The SAF/AQ Master Process Officer, pursuant to AFI 38-401 (ref. c), will accomplish the following:

1. Oversee SAF/AQ Green Belt Training, using the Center for Reengineering and Enabling Technology (CRET) instructors to guide students through SAF/MG's process, host Green Belt classes as required, and clarify concepts as taught by the Air Force
2. Ensure student records are created and maintained on the AF CPI² portal throughout the training and certification processes
3. Certify SAF/AQ Air Force CPI² Green Belts
4. Recommend SAF/AQ Green Belts to attend Black Belt Training
5. Recommend SAF/AQ Black Belt Certification packages to SAF/MG
6. Provide Just-in-Time Air Force CPI² Training
7. Collaborate with other CPI² offices across the Air Force

The AECO executes structured problem-solving using CPI² methodologies including but not limited to: Air Force CPI Practical Problem-Solving Method, Lean, 6-Sigma, Business Process Reengineering, Theory of Constraints, Agile, and Value Engineering.

Leadership requesting SAF/AQ CPI² resources are required to comply with the standard of work defined for entry, conduct of, and reporting of CPI² activities. SAF/AQXP will satisfy the CPI² education and training of the acquisition workforce, either by conducting and facilitating training or collaborating with other CPI² practitioners in support of the request.

To maintain an adequate level of CPI² knowledge and expertise in the acquisition community, leaders should encourage their subordinates to take advantage of these opportunities:

CPI² Training Opportunities			
Course	Delivery Method	Attendees	Expected Outcomes
Air Force Continuous Process Improvement Training Managed by SAF/MG (full list in AFI 38-401)			
Green Belt Course	Online or In-Person (taught by Master Process Officer or designee)	As specified by SAF/AQ leadership	Execute the Practical Problem-Solving Method and related tools at the appropriate level of mastery.
Black Belt Course	In-Person via the Air University Eaker Center at Maxwell AFB	As specified by SAF/AQ leadership; must be accepted into the course via SAF/MG process	Execute the Practical Problem-Solving Method and related tools above Green Belt level complexity threshold.
Senior Leader Course	In-Person – instructors provided by Air University education and training director	O-6s; E-9s; GS-15s and equivalents	Able to employ Lean Six Sigma-CPI ² in leading organizational change.
Continuous Process Improvement Training Courses			
CLE 015 <i>CPI Familiarization</i>	Defense Acquisition University Online	Recommended for all SAF/AQ employees	Provides basic information on CPI ² methodologies and tools and how their implementation can improve organizational performance.
HBS 434 <i>Process Improvement</i>	Defense Acquisition University Online	Recommended for all SAF/AQ Employees	Basic knowledge of business processes and how to carry out business process improvement methodologies.
CLE 001 <i>Value Engineering</i>	Defense Acquisition University Online	All SAF/AQ employees	Overview, application and implementation of VE.
Business Process Re-Engineering	In-Person (AECO)	Lt Cols, GS-14s and above; civilian equivalents	Mastery of concepts and their application to SAF/AQ issues.
Just-in-time Training	In-Person (AECO)	CPI ² activity participants	Familiarity with tools to be used during CPI ² event.

ATTACHMENT 4 BUSINESS CASE DEVELOPMENT

The execution of a CPI² event is predicated on an approved Project Scoping Document. The project scoping document identifies the issue(s), impacts, return on investment, and stakeholders; it is signed by the senior process owner.

Project Scoping Document Template

Process Improvement Project:	
Senior Process Owner:	
Proposed Schedule:	
Problem Statement: (Why are we doing this?)	
Impact Statement: (How will this impact AF, SAF/AQ, efficiencies)	
Start/Stop Conditions: (Scope of the project)	
Not within Scope: (Things not to cover)	
Description of Current State Process:	
Current State Process Measures & Metrics: (Critical Success Factors)	
Goals and Expected Outcomes:	
Governing Policies/Instructions:	
Return on Investment/Type of Benefit: (From ROI template)	
Team Leads:	
Team Members:	
Risks & Other Issues/Concerns:	
Recent/Current Work Being Done:	
Acquisition Process Model Linkage:	
Strategic Alignment (Strat Plan, SAF/AQ Strategic Plan, etc.)	

ATTACHMENT 5

CPI² COMMUNICATION PLAN

CPI² communications are essential for execution of the CPI² program. SAF/AQXP CPI² team will maintain the following communications protocol:

CPI² Awareness:

1. Articles to various periodicals and information sites
2. Presentations to interested parties and Government and Industry venues

Weekly:

1. Conduct action-officer level discussion to include but not limited to:
 - a. Status of CPI² related administrative work
 - b. Status of all CPI² projects
 - c. CPI² opportunities
 - d. Issues
2. Conduct AECO Chief level discussion to include but not limited to:
 - a. Status of all CPI² projects
 - b. CPI² opportunities
 - c. Issues warranting Branch Chief awareness/intercession
 - d. Status of APM
3. Conduct ACPO level discussion to include but not limited to:
 - a. Status of all CPI² projects
 - b. CPI² opportunities
 - c. Issues warranting ACPO awareness/intercession
 - d. Status of APM
4. Provide reporting updates
 - a. AQX Weekly Update
 - b. CPI² portion of the AQX Staff Meeting slides

Monthly:

1. Report progress against SAF/AQXP CPI² goals to AECO Chief and ACPO

Quarterly:

1. Conduct APM Working Group meetings

Annually:

1. Prepare SAF/AQ CPI² plan for upcoming FY
2. Prepare SAF/AQ CPI² report for prior FY
3. Per OSD guidance, VE program plan and metrics (currently on hold)

ATTACHMENT 6

CPI² TERMS AND TECHNIQUES

Continuous Process Improvements and Innovations will be achieved through the tailored use of situation-appropriate CPI² tools and techniques.

Tool / Technique	Use	Definition
5 WHYS / Root Cause Analysis	Root Cause	Tool applied to identify the root cause of the problem.
Affinity Diagram	Group Ideas	An affinity diagram is used to show activities in homogeneous groupings known as affinity groupings. This is a common tool used during brainstorming sessions.
Balanced Scorecard	Align Strategic Efforts	A technique used to align enterprise activities to the key business objectives of the organization. It can be used to measure performance in: finance, business processes, customer satisfaction, learning and growth, business strategy, Innovation. This concept balances activities in all areas to keep systems in check and aligned with strategic goals.
Brainstorming	Idea Generation	A method for generating many ideas in a short period. There should be no boundaries to ideas, synergistic, and rapid. The list of ideas will generally be narrowed down to a prioritized list of potential projects, recommendations, or solutions to problems.
Carousel Brainstorming	Idea Generation	A Carousel Brainstorm is a variation of the Walkabout Review process and allows multiple groups to work concurrently statements or issues for consideration. Groups brainstorm at one station and then rotate to the next position where they add additional comments. As new thoughts and ideas emerge, the list grows. When the carousel “stops” the original team prepares a summary and then presents the large group’s findings.
Cause-effect Diagram or Fishbone Diagram	Root Cause	A Diagram that shows the relationship of all factors (causes) that lead to the given situation (effect). It identifies major causes and breaks them down into sub-causes and further sub-divisions.
Change Management	Fundamental or Organizational Changes	Approach to transition individuals, teams, and organizations to a desired future state, by reducing and managing resistance to change of organizations soft-side "people."
Cost/Benefit Analysis	Analysis of Alternatives	A systematic approach to estimate the strengths and weaknesses of alternatives that satisfy requirements and expectations; can be used to compare other areas such as risk, time, and financial implications.
Critical to Quality Tree	Align Requirements to Characteristics	Translates broad customer needs into specific, actionable, measurable performance requirements.

Tool / Technique	Use	Definition
Design of Experiments	Optimize Designs	Technique that enables designers to determine simultaneously the individual and interactive effects of many factors that could affect the output results in any design. It also provides a full insight of interaction between design elements; therefore, it helps turn any standard design into a robust one. Designers are then able to fix these problems and produce robust and higher yield designs prior going into production.
Failure Modes and Effects Analysis (FMEA)	Risk Management Tool	A risk management tool used in quality and reliability engineering to identify high risk items based on the consequences of failure. The FMEA addresses three (3) measures: 1. <i>Frequency of occurrence</i> , 2. <i>Severity of consequence</i> , and 3. <i>Chance of detection</i> . The tool can be used to evaluate a process (where the risks are process failures) or a design (where the risks are product or system-related failures).
Flowchart or Process Flow Chart	Visual Representation of Process	A graphical tool that depicts steps of a process in sequential order (usually from the top to bottom of the page). The basic idea is to include all the steps of critical importance to the process. They can also be also annotated with performance or pertinent information.
Functional Analysis System Technique (FAST) Diagram	Functional Analysis	The FAST diagram is designed to logically sequence, prioritize, and test the dependency of the process functions.
Gantt Chart	Project and Time Management Tool	Type of bar chart to visually illustrate the start and finish dates of activities. The activities are broken down into manageable elements with start, finish, scheduled, actual times, and percentage complete.
Is/Is Not	Process Improvement Tools	Tool for classifying desirable/undesirable characteristics of the current/future state processes. Also used in a 2X2 variation for contrasting current and future state processes.
Ishikawa Tools (7-Basic Tools)	Process Improvement Tools	<ol style="list-style-type: none"> 1. <i>Cause-Effect Diagram</i>: Identifies many probable causes for an effect or problem and sorts ideas into useful categories. 2. <i>Check Sheet</i>: A structured, prepared form for collecting/analyzing data; a tool that can be adapted for a wide variety of purposes. 3. <i>Control Chart</i>: Graphs depicting process changes over time 4. <i>Histogram</i>: Depicts frequency distributions, or how often each different value in a set of data occurs. 5. <i>Pareto Chart</i>: Shows on a bar graph which factors are more significant. 6. <i>Scatter Diagram</i>: Graphs pairs of numerical data, one variable on each axis, to look for a relationship. 7. <i>Run Chart</i>: A technique that separates data gathered from a variety of sources so that patterns can be seen
Just-In-Time (JIT)	Minimize Waste and Built to Order	Method of reducing flow times in production and the response time from suppliers, reducing work-in-process, inventory, and waste, and creating a continuous process flow.

Tool / Technique	Use	Definition
Kaizen	Rapid Improvement	Japanese for “improvement.” A Kaizen Event is a rapid, focused improvement project that must have a clear and concise objective, adequately resourced to ensure rapid results.
Kanban	Visual Scheduling	Japanese for “sign-board.” Kanban is a scheduling system for lean and JIT production.
Plan-Do-Check-Act (PDCA)	CPI Method	Process improvement techniques: "PLAN" step defines the process to improve. “DO" implements the plan and measures performance. “CHECK” assesses results. The "ACT" determines process improvement changes to be made. Cycle repeats.
Poka Yoke	Preventing Errors	“poka yoke” is Japanese that means “to avoid errors,” It is a mistake proofing approach to eliminate or prevent errors. Uses simple and effective tools and signals to prevent errors.
Possible-Implement-Challenge-Kill Charts	Prioritize Action Items	A Brainstorming tool that organizes and categorizes ideas. Provides a visual comparison of actions relative to their impact to the problem vs the ease or cost of implementation. Each section of the quad chart is represented by the letters "P" possible, "I" implement, "C" challenge, and "K" kill, starting in the lower left of the chart. The axis of the chart can be adjusted based on the topic.
Practical Problem-Solving Method (PPSM)	Structured Problem-Solving Technique	The PPSM is an eight-step problem solving technique consisting of: 1. Clarify and Validate the Problem 2. Break Down the Problem, Identify Performance Gaps 3. Set Improvement Target 4. Determine Root Cause 5. Develop Countermeasures 6. See Countermeasures Through 7. Confirm Results and Process 8. Standardize Successful Processes
Prioritization Matrix	Prioritize Requirements	Typically, an L-shaped matrix that makes pair-wise comparisons of established criteria and options. The prioritization matrix is a rigorous method and requires skill to use it effectively.
Process Capability	Statistical Process Control	Compares the process output and the specification limits using a variety of charts and indices. Commonly used statistical measurements include process capability (Cp, Cpk) and process performance (Pp, Ppk).
Process Mapping	Visual Representation of Process	A graphical representation of a process.

Tool / Technique	Use	Definition
RASCI Matrix	Process and Business Discovery Tool	<p>RASCI Matrix: Used to assign and display responsibilities of individuals or jobs in a task (project, service or process) in the organization. Defined as:</p> <ul style="list-style-type: none"> • R - Responsible - entity responsible for carrying out the task • A - Accountable (also Approver) - entity responsible for the whole task and who is responsible for what has been done. • S - Support – entity who provides support during the implementation of the activity / process / service. • C - Consulted – entity that provides advice or consultation for the task. • I - Informed – entity who should be informed about the task progress or the decisions in the task.
Strength-Weaknesses-Opportunities-Threats (SWOT)	Business Analysis Tool	A methodology for the team to explore the SWOT of a project or area of interest. This tool is commonly used in strategic-planning activities as an environmental scan and way to get input from the entire organization.
Suppliers-Inputs-Process-Outputs-Customer (SIPOC)	Process and Business Discovery Tool	A process-mapping methodology typically used in the define phase of Define, Measure, Analyze, Improve, and Control (DMAIC). Used to show relationship between inputs and outputs. Normally start with the customer "C" needs and requirements and work back to the left until you get to the supplier.
Theory of Constraints (TOC)	Manage Bottlenecks	In a series of steps in a process, the slowest step controls the pace of the whole flow of the process. The process cannot go faster than the slowest step.
TIM WOOD & DOWNTIME	Identify Waste	<p>Lean, 6S techniques used to ID areas of waste in a process: TIM WOOD: 1. <i>Transportation</i>, 2. <i>Inventory</i>, 3. <i>Motion</i>, 4. <i>Waiting</i>, 5. <i>Over-processing</i>. 6. <i>Over-production</i>, 7. <i>Defects</i> DOWNTIME: 1. <i>Defects</i>, 2. <i>Over-production</i>, 3. <i>Waiting</i>, 4. <i>Non-utilized talent</i>, 5. <i>Transportation</i>, 6. <i>Inventory</i>, 7. <i>Motion</i>, 8. <i>Extra processing</i></p>
Value Stream Mapping (VSM)	Visualize Process and Streamline	A tool used to examine a process for the presence of unnecessary and wasteful activities. It provides visibility of material flow and information flow in a process on one diagram.
Visual Management	Visual Communication Tools	Technique used to communicate information by visual signals/charts/data displayed in a common place. A department Dashboard is a good example of a visual management tool that displays targets, progress, trends, and action items status.
Voice of Customer (VOC)	Identify Customer Requirements	The VOC is a market research technique that produces a detailed set of customers wants and needs, organized into a hierarchical structure, and then prioritized in terms of relative importance and satisfaction with current alternative

ATTACHMENT 7

SAF/AQX CPI² POINTS OF CONTACT

USAF Pentagon SAF-AQ Mailbox SAF-AQXP CPI² Work Flow:
SAF.AQ.SAF-AQXP.CPI.Wkflw@us.af.mil

Location: Pentagon
Address: SAF/AQXP CPI Branch
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ATTACHMENT 8

WEBSITE & DOCUMENT REFERENCES, AND ACRONYMS

Website References

Air Force Continuous Process Improvement Portal (CAC enabled access):
<https://usaf.dps.mil/teams/cpiportal/SitePages/home1.aspx>

Continuous Process Improvement Tools Website: <http://asq.org/learn-about-quality/>

SAF/AQXP CPI Branch SharePoint Site (CAC enabled access):
<https://usaf.dps.mil/sites/SAFAQ/dir/integration/strategy/cpi/default.aspx>

USAF Acquisition Process Model Website: <https://afacpo.com/acpo/>

SAF/AQX Playbook (CAC enabled access on the AQX common drive):
\\snapdragon_vnx\saf_aqx_org\AQX Files\AQX Playbook

Document References

AFI 1-2, *Commander's Responsibilities*, 8 May 2014

AFI 38-401, *Continuous Process Improvement*, 23 August 2019

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DoDD 5010.42, *DoD-Wide Continuous Process Improvement/Lean Six Sigma Program*, 15 May 2008

DoDI 4245.14, *DoD Value Engineering Program*, 15 October 2018

DoDI 5000.02, *Operation of the Adaptive Acquisition Framework*, 23 January 2020

DoDI 5010.43, *Implementation and Management of the DoD-Wide Continuous Process Improvement/Lean Six Sigma Program*, 17 July 2009

HAF MD 1-10, *Assistant Secretary of the Air Force (Acquisition)*, 02 September 2016

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Acronyms

ACPO	Acquisition Chief Process Officer
AECO	Acquisition Excellence and Change-management Office
AFI	Air Force Instruction
APM	Acquisition Process Model
AU	Air University
BB	Black Belt
BPR	Business Process Reengineering
CPI ²	Continuous Process Improvement and Innovation
CPO	Chief Process Officer
CRET	Center for Reengineering and Enabling Technology
DAF	Department of the Air Force
DAU	Defense Acquisition University
DoD	Department of Defense
DoDD	Department of Defense Directive
DoDI	Department of Defense Instruction
FAST	Functional Analysis System Technique
FY	Fiscal Year
GB	Green Belt
HAF	Headquarters Air Force
JIT	Just-In-Time
LSS	Lean Six Sigma
MBB	Master Black Belt
MPO	Master Process Officer
OSD	Office of the Secretary of Defense
PEO	Program Executive Officer
PPSM	Practical Problem-Solving Model
RASCI	Responsible, Accountable, Support, Consulted, Informed
RIE	Rapid Improvement Event
SAF/AQ	Assistant Secretary of the Air Force (Acquisition)
SAF/MG	Assistant Secretary of the Air Force (Management)

SECAF	Secretary of the Air Force
SIPOC	Suppliers, Inputs, Process, Outputs, Customers
SWOT	Strengths, Weaknesses, Opportunities, Threats
TOC	Theory of Constraints
USAF	United States Air Force
VE	Value Engineering
VOC	Voice of the Customer
VSM	Value Stream Map

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