

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

AIR FORCE INSTRUCTION 38-401

15 APRIL 2016



Manpower and Organization

***CONTINUOUS PROCESS
IMPROVEMENT (CPI)***

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available for downloading or ordering on the e-Publishing web site at www.e-Publishing.af.mil.

RELEASABILITY: There are no releasability restrictions on this publication

OPR: SAF/MGM

Certified by: SAF/MG
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Pages: 21

This publication implements Air Force Policy Directive (AFPD) 38-4, *Management Improvement*, and policy and guidance contained in Department of Defense (DoD) Instruction 5010.43, *Implementation and Management of the DoD-Wide Continuous Process Improvement/Lean Six Sigma (CPI/LSS) Program* and DoD Directive 5010.42, *DoD-Wide Continuous Process Improvement (CPI)/Lean Six Sigma (LSS) Program*. It assigns responsibilities and establishes guidance for the implementation of the Air Force CPI/LSS program.

This instruction applies to all U.S. Air Force military and civilian personnel. It may be supplemented at any level, but all supplements must be routed to the Deputy Under Secretary of the Air Force, Management (SAF/MG) for coordination prior to certification and approval. Due to the National Guard Bureau's (NGB) joint construct, the Air National Guard may defer to formal NGB implementation guidance in lieu of this publication. The NGB's implementation guidance will be coordinated with the Deputy Under Secretary of the Air Force, Management (SAF/MG).

Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through Major Command (MAJCOM) publications managers.

The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, Table 1.1, for a description of the authorities associated

with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the publication OPR for non-tiered compliance items.

Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW the Air Force Records Disposition Schedule (RDS) in the Air Force Records Information Management System (AFRIMS).

This publication describes processes which prescribe the creation of various records and/or reference one or more information technology (IT) system/database. This publication requires collection and maintenance of information protected by the Privacy Act (PA) of 1974. The authorities to collect and maintain the records prescribed in this publication are 10 U.S.C. § 8013 and E.O. 9397. Privacy Act System of Records Notice F036 HQ AFPC Q, Personnel Data System (PDS), applies.

Chapter 1

OVERVIEW

1.1. Continuous Process Improvement (CPI) increases operational capabilities while reducing associated costs by applying proven techniques to all processes associated with fulfilling the Air Force (AF) mission. The goal of Air Force CPI is to eliminate waste while maximizing customer value. Air Force CPI uses several widely accepted process improvement methodologies, including lean, six sigma, theory of constraints, and business process reengineering. Key principles contained in these methodologies include improving flow and reducing waste within a process, focusing on factors that degrade product quality, identifying and overcoming process constraints, and redesigning processes. The application of these principles enables Airmen to integrate continuous improvement into day-to-day operations across the full spectrum of AF operations.

Chapter 2

ROLES AND RESPONSIBILITIES

2.1. The Deputy Under Secretary of the Air Force, Management (SAF/MG) will:

- 2.1.1. Implement CPI policies consistent with DoDI 5010.43 and guidance approved by the DoD CPI Senior Steering Committee (SSC).
- 2.1.2. Advocate for the necessary resources and provide guidance to affect full synchronization, integration, and application of CPI capabilities across organizational and functional boundaries.
- 2.1.3. Approve policy and procedures for implementing and managing AF CPI.
- 2.1.4. Approve standards and methods for employing CPI tools.
- 2.1.5. Approve requirements and standards for CPI education, training, and certification, including internal and external education and training sources.
- 2.1.6. Chair the Enterprise Process Improvement Council (EPIC). See Chapter 5, Governance.

2.2. The Director, Management Improvement (SAF/MGM) will:

- 2.2.1. Serve as the functional and OPR for AF CPI and focal point for all CPI matters/issues.
 - 2.2.1.1. Represent the Air Force at the DoD CPI SSC.
 - 2.2.1.2. Maintain a CPI database to support CPI and increase replication of CPI ideas and adoption of AF-wide business practices.
- 2.2.2. Propose resources and guidance to affect full synchronization, integration, and application of CPI capabilities across organizational and functional boundaries for SAF/MG advocacy.
- 2.2.3. Attend Black Belt (BB) training within 6 months of assuming duties. Certification application should follow as soon as possible, in accordance with certification requirements outlined in Chapter 4, and Attachments 2 and 3, except as waived by SAF/MG.
- 2.2.4. Develop policy and procedures for implementing and managing CPI.
- 2.2.5. Define and maintain standards and methods for employing CPI tools.
- 2.2.6. Develop requirements and standards for CPI education, training, and certification, including internal and external education and training sources.
 - 2.2.6.1. Ensure CPI training is developed and implemented in accordance with AFI 36-2201, *Air Force Training Program*, and AFMAN 36-2234, *Instructional System Development*.
 - 2.2.6.2. Establish CPI certification standards and criteria for Green Belt (GB), BB, and Master Black Belt (MBB) practitioners.
 - 2.2.6.3. Certify BB and MBB practitioners.
- 2.2.7. Support SAF/MG in carrying out EPIC responsibilities.

2.2.8. Conduct project work for the AF enterprise, as directed by SAF/MG.

2.2.9. Work closely with Master Process Officers (MPO) to solicit feedback on AF CPI and discuss potential enterprise wide events.

2.3. The Director, Force Development (AF/A1D) will:

2.3.1. Manage AF CPI Senior Executive Training attendance for General Officers, Senior Executive Service members, Command Chief Master Sergeants, and Headquarters AF (HAF) Functional Area Managers.

2.4. The Director, Manpower, Organization, and Resources (AF/A1M) will:

2.4.1. Coordinate CPI policy and guidance for Manpower career field with SAF/MGM.

2.4.2. Manage Manpower career field CPI training and capability.

2.4.3. Approve manpower determinants and resource costing models and provide implementation guidance after the AF Deputy Chief Management Officer (DCMO) has certified the standard has been developed in accordance with approved CPI projects/initiatives.

2.4.3.1. Exception: AFRC/CC will retain authority to approve AF Reserve Command (AFRC) manpower determinants.

2.4.4. Present manpower determinants and resource costing models to EPIC for review.

2.5. The Commander, Air Force Manpower Analysis Agency (AFMAA/CC) will:

2.5.1. Conduct management engineering studies (MET) to develop new or updated manpower determinants after implementation of approved CPI initiatives. Exception: AFRC MET will retain responsibility to conduct management engineering studies for HQ AFRC.

2.5.2. Conduct CPI events to develop new or updated standard work documents.

2.5.3. Develop management engineering determinants and resource costing models to determine manpower requirements.

2.6. The Headquarters Air Force (HAF) 2-Letter Directorates will:

2.6.1. Appoint an MPO to support the Directorate and assigned field operating agency(s) (FOA), located and assigned at the discretion of the director. Ensure a copy of the appointment letter is sent to SAF/MGM Workflow at: usaf.pentagon.saf-usm.mbx.usm-workflow-all@mail.mil.

2.6.1.1. If the Directorate has less than 30 personnel or is not assigned an AF-level FOA, work with SAF/AAR to obtain support.

2.6.2. Share results of CPI projects that contribute to transformation of AF processes, monitor their execution, and recommend corrective actions to the EPIC.

2.7. The Commander, Air Education and Training Command (AETC/CC) will:

2.7.1. Ensure CPI training modules are included in accession and professional military education (PME) curricula for officers, enlisted members, and civilians (upon approval by appropriate governance body).

2.7.2. Support CPI Education and Training (E&T) at Air University (AU), Maxwell AFB, AL, as defined by policies, corporate decisions, and/or memoranda of agreement.

2.7.2.1. Provide registrar support for students attending AU CPI training courses.

2.7.2.2. Provide base operating support for CPI courses delivered at Maxwell AFB, AL.

2.7.2.3. Manage Practical Problem Solving Method (PPSM), GB, BB, and Senior Leader Course (SLC) curricula. Additional deep-dive CPI curricula may be developed, if needed.

2.8. The MAJCOM/DRU Commander will:

2.8.1. Appoint a dedicated MPO, located and assigned at the discretion of the commander. Ensure a copy of the appointment letter is sent to SAF/MGM Workflow at: usaf.pentagon.saf-usm.mbx.usm-workflow-all@mail.mil.

2.8.1.1. The target rank/grade for this position is a Lt Col/GS-14 (or equivalent).

2.8.2. Develop supplemental guidance as required to address MAJCOM/DRU CPI implementation details not addressed in this publication.

2.9. The Master Process Officer will:

2.9.1. Attend BB training within 6 months of assuming duties. Certification application should follow, in accordance with certification requirements outlined in Chapter 4, and Attachments 2 and 3.

2.9.2. Advise commanders/directors/functionals on CPI tools and methods for continuously improving mission effectiveness and efficiency, including strategic alignment and prioritization of performance improvement initiatives.

2.9.3. Encourage commanders to use practitioners to facilitate problem solving teams to address inspection deficiencies and strategic gaps.

2.9.4. Ensure CPI education and training is coordinated and scheduled.

2.9.4.1. Ensure GB training utilizes the SAF/MGM-approved curriculum posted on the AF CPI portal. (T-1)

2.9.4.2. Establish mentor program for practitioners assigned across MAJCOM/DRU.

2.9.4.3. Certify GB candidates in accordance with Chapter 4 and Attachment 3.

2.9.4.4. Review packages and recommend nominees for BB training and certification.

2.9.4.5. Use the AF CPI portal to manage MAJCOM CPI.

2.9.4.5.1. Validate list of CPI practitioners semi-annually.

2.9.4.5.2. Update MPO contact list when changes are made.

2.9.5. Promote CPI capabilities and successes.

2.9.6. Conduct projects, as directed by the commander. Completed project work, documented on an A3 (see Terms), should be submitted to the AF CPI portal.

2.9.6.1. Consider submitting project to the Airmen Powered by Innovation (API) Program for replication opportunities. Refer to AFI 38-402, *Airmen Powered by Innovation*, for submission procedures.

2.9.7. Provide (at the MAJCOM level) continual evaluation of wing CPI and recommend to MAJCOM IGs, onsite sampling strategies, to include identified shortfalls and areas of concern.

2.9.8. Work closely with the MAJCOM/DRU/A1M and SAF/MGM on CPI issues to provide feedback on AF CPI and discuss potential enterprise-wide events.

2.10. The Director, MAJCOM/DRU/A1M will:

2.10.1. Be the primary office for the MPO, unless this role has been otherwise appointed by the commander.

2.10.2. Ensure assigned CPI practitioners work closely with the MPO on CPI issues.

2.11. The Center/Wing Commanders/Directors will:

2.11.1. Appoint a Wing Process Manager (WPM). (T-2)

2.11.1.1. Commanders with geographically disparate organizations should consider appointing more than one WPM.

2.11.1.2. Field operating agency directors may appoint a WPM.

2.12. The Wing Process Manager will:

2.12.1. Attend BB training within 6 months of assuming duties. (T-1) Certification application should follow, in accordance with certification requirements outlined in Chapter 4, and Attachments 2 and 3.

2.12.2. Present project status and impact, number of practitioners trained, and upcoming CPI opportunities to the commander on a quarterly basis. (T-3) Advise commanders/directors on CPI tools and methods for continuously improving mission effectiveness and efficiency, including strategic alignment and prioritization of performance improvement initiatives. (T-3)

2.12.3. Be responsible for monitoring wing CPI. (T-2)

2.12.3.1. Advocate and serve as the CPI subject matter expert for the organization. (T-2)

2.12.3.2. Support AF tenant units with CPI consultation and facilitation if available. (T-3)

2.12.3.3. Ensure local GB training utilizes the SAF/MGM-approved curriculum posted on the AF CPI portal. (T-1)

2.12.3.4. Utilize the AF CPI portal for CPI management. (T-1) Suggest GB and BB practitioners review projects on the AF CPI portal before project work begins, eliminating possible duplication of effort.

2.12.3.4.1. Use the AF CPI Portal to upload, track, and report CPI education, certifications, and complete projects for their wing. (T-1)

2.12.3.4.1.1. Consider submitting projects to API for replication opportunities.

Refer to AFI 38-402, *Airmen Powered by Innovation*, for submission procedures.

- 2.12.3.4.2. Update list of CPI practitioners semi-annually. (T-1)
- 2.12.3.5. Establish mentor program for wing practitioners. (T-2)
 - 2.12.3.5.1. Review packages and recommend nominees from their wing for CPI training. (T-1)
 - 2.12.3.5.2. Assist wing GB and BB candidates with building and submitting certification packages. (T-2)
- 2.12.4. Brief CPI capability and successes at local professional development seminars or newcomer information avenues as deemed appropriate. (T-3)
- 2.12.5. Conduct projects, as directed by the commander. (T-3)
- 2.12.6. Assist commanders in assigning the right practitioner to the right project. (T-3)
- 2.12.7. Work closely with the manpower office on CPI issues. (T-2)

2.13. The Chief, Wing Manpower Office, will:

- 2.13.1. Be the primary office for the WPM, unless this role has been appointed otherwise by the wing commander. (T-3)
- 2.13.2. Ensure assigned practitioners work closely with the WPM on CPI issues. (T-2)

2.14. Commanders/Directors at all levels will:

- 2.14.1. Promote CPI methodologies to fulfill requirements in AFI 1-2, *Commander's Responsibilities*, and AFI 90-201, *The Air Force Inspection System*. (T-2)
 - 2.14.1.1. Consider developing a strategic plan. Selected projects should be aligned to the strategic plan, addressing gaps between current and standard performance indicators.
 - 2.14.1.1.1. Use BB practitioners to assist in strategy and key performance indicator development, when possible. (T-3)
 - 2.14.1.2. Promote the use of PPSM to address strategic or key performance indicator gaps, and self-assessment or inspection findings.
 - 2.14.1.3. Utilize a governance structure to strategically align projects, find and fix unit deficiencies, and foster a culture of process improvement. (T-2) Consider reviewing project status and impact, number of practitioners trained, and upcoming CPI opportunities on a quarterly basis.
 - 2.14.1.4. Establish strategically aligned performance indicators to ensure data-driven decision-making, risk management, and focused resources on organizational goals and objectives. (T-2)
- 2.14.2. Support training and certification opportunities for local CPI practitioners. (T-2)
Commanders can develop CPI capability in any career field.

Chapter 3

EDUCATION, TRAINING, AND CERTIFICATION REQUIREMENTS

3.1. Practical Problem Solving Method (PPSM) (formerly known as the 8-Step).

3.1.1. This training cultivates a standard, innovative, critical thinking culture to improve the way we work. Solving day-to-day work area problems, regardless of organizational level, goes to the heart of CPI efforts. This problem-solving method serves as the framework for the application of all CPI approaches, methodologies, tools, and techniques available to the practitioner. Practical Problem Solving Method training is provided during accession and PME courses. It can also be provided by a trained GB practitioner, using the curriculum posted on the AF CPI portal.

3.2. Just-in-Time Training.

3.2.1. Team members receive training when they participate in a CPI project. The practitioner determines what type of training is needed by the team and when to provide it.

3.3. Green Belt (GB) Training.

3.3.1. Green Belt training is the initial level of CPI training for a practitioner. It introduces CPI methodologies, tools, problem solving, and facilitation. Green Belt training is provided via two sources: 1) the Manpower and Organization Apprentice Course, or 2) a certified BB practitioner who is also current. (Note: a practitioner who has attended BB training, but has not received BB certification may be authorized to provide GB training upon MPO approval). Practitioners delivering GB training use the standard curriculum posted on the AF CPI portal. Use of the SAF/MGM-approved curriculum is mandatory. (T-1)

3.3.2. After successful completion of GB training, civilian employees can update their civilian training record in the Defense Civilian Personnel Data System (DCPDS) according to published procedures.

3.4. Black Belt (BB) Training.

3.4.1. Black Belt training is the intermediate level of CPI training for a practitioner. It is designed to increase knowledge, skills, and abilities using CPI tools, as well as further develop facilitation and problem solving techniques. The course is delivered by AU's CPI E&T at Maxwell AFB, AL. Practitioners must be nominated to attend the course. (T-1) Nomination requirements are provided in Attachment 2.

3.4.2. The MPO submits the practitioner's BB training nomination package to CPI E&T. Continuous Process Improvement E&T recommends nominees to SAF/MGM for final approval.

3.4.3. Continuous Process Improvement E&T instructors will update those who successfully complete the BB training in AF CPI portal. (T-1)

3.4.4. After successful completion of BB training, civilian employees can update their training record in the DCPDS according to accepted procedures.

3.5. Master Black Belt (MBB) Training.

3.5.1. Master Black Belt training is the most advanced level of CPI training for a practitioner. It is designed to further develop and increase knowledge, skills, and abilities using CPI tools, as well as further develop facilitation and problem solving techniques.

3.5.2. This training is currently not provided by the AF. Master Black Belt training is personal professional development the AF encourages, but is not currently an AF requirement.

3.6. Senior Leader Education.

3.6.1. The SLC provides senior leaders with an overview of how CPI is used to define problems; measure, manage, and monitor performance; and strategically align organizational goals, objectives, and project selection. The course introduces leaders to CPI concepts and uses an industry tour to provide first-hand exposure to CPI mindset and tools. Colonels, GS-15s (or equivalent), Chief Master Sergeants, and squadron commanders should attend the SLC. This course is hosted by the MPO or WPM and is scheduled with CPI E&T, who coordinates the instructor and provides any course materials. Continuous Process Improvement E&T provides instructors for the SLC, whether through physically assigned or “adjunct” instructors.

3.6.1.1. Procedures for scheduling and supporting a SLC are found on the AF CPI portal.

3.6.1.2. After successful completion of the SLC, civilian employees can update their civilian training record in the DCPDS according to accepted procedures.

3.7. Executive Leader Education.

3.7.1. The Executive Leader Course provides executive leaders with a basic understanding of key CPI principles to improve and expand the implementation of CPI efforts throughout the enterprise. The course includes sessions on strategic alignment, lean tools, PPSM, and an industry tour. General Officers, Senior Executives, Command Chief Master Sergeants and HAF Functional Area Managers should attend the Executive Leader Course. SAF/MGM manages the course, but registration and scheduling are accomplished by AF/A1D.

Chapter 4

CERTIFICATION, CURRENCY, AND EQUIVALENCY

4.1. Certification.

4.1.1. Certification demonstrates practitioner credibility to commanders and project customers. It also provides a developmental path for CPI practitioners and provides a standard CPI approach across the AF enterprise. Certification requirements are listed in Attachment 3.

4.1.2. Air Force CPI certification consists of four elements: completing training, performing CPI duties for a specified minimum length of time, demonstrating capability to accomplish project work to a published standard, and gaining a recommendation from the individual's commander and MPO.

4.1.2.1. Certification scoring methodology for project work is posted on the AF CPI portal.

4.1.2.2. Project work submitted for certification should be scoped at the appropriate level of complexity and be aligned to the unit's strategy. Use the following DoD scoping guidance as a reference. This is not an all-inclusive description of project scope.

4.1.2.2.1. Green Belt project scope is a single issue within a single process within an organization.

4.1.2.2.2. Black Belt project scope is a single process in an organization(s) addressing multiple issues.

4.1.2.2.3. Master Black Belt project scope is an enterprise issue involving no less than two organizations.

4.1.2.2.4. A practitioner may need to accomplish multiple CPI projects before completing a project that demonstrates proficiency at the level of certification being pursued. Practitioners should submit their best project for certification purposes.

4.1.3. Practitioners receiving certification should update their military and/or civilian personnel records with the appropriate Special Experience Identifier (SEI). (T-1) See Attachment 4 for the list of relevant SEIs.

4.2. Equivalency.

4.2.1. Practitioners with CPI/LSS certifications from industry, academia, or non-AF agencies can be considered for AF CPI certification and should request consideration through their MPO. The MPO will interview the practitioner to assess knowledge of AF CPI principles and project work, and provide a recommendation to the appropriate certification authority. The appropriate certification authority will update the AF CPI portal accordingly. Air Force CPI certification time-in-position durations are required. Additional equivalency requirements are summarized in Attachment 3.

4.2.2. Certifications previously received under Air Force Smart Operations for the 21st Century (AFSO21) and AFSO construct are automatically considered equivalent to the certifications outlined in this instruction. No additional action is required.

4.3. Currency.

4.3.1. After certification, practitioners should continue to facilitate and conduct CPI projects and improve their skills. However, these skills can diminish over time. To reinforce a culture of continuous learning and communicate a minimum level of proficiency to commanders, practitioners should facilitate one project or mentor a lower-level practitioner through one project annually. The AF CPI portal is designed to track this currency.

4.3.2. Practitioners must be current to teach GB training. (T-2)

Chapter 5

GOVERNANCE

5.1. Enterprise Process Improvement Council (EPIC).

5.1.1. The Enterprise Process Improvement Council (EPIC) ensures Air Force strategic goals, change management objectives, and strategic priorities are enabled by ongoing CPI efforts. It serves as the Air Force corporate body that vets CPI projects/initiatives with enterprise-wide applications, with emphasis on assuring Air Force business and management operations are as streamlined and efficient as practical, while maintaining effective mission accomplishment. The EPIC focuses on supporting objectives as outlined in DoD and Air Force strategic plans and special interest areas designated by the Air Force Chief Management Officer (CMO). It collaborates on new and in-progress strategic initiatives to ensure timely and disciplined implementation and engage the Air Force CMO as required for problem resolution.

5.2.1. The purpose of EPIC is to provide senior cross-functional review and unified direction, guidance, and leadership to efficiently and effectively manage Air Force enterprise transformation efforts. With respect to AF CPI, EPIC will:

5.2.1.1. Review process re-engineering initiatives and provide a recommendation on whether or not to implement a given initiative.

5.2.1.2. Identify, request, and recommend data strategies, including metrics and data access rules, which improve enterprise effectiveness and efficiency.

5.2.1.3. Collaborate on and propose new, strategic level Air Force performance improvement initiatives.

5.2.1.4. Review status of on-going initiatives for cross-functional awareness and resolution assistance as needed.

5.2.1.5. Collaborate on proposed and on-going Defense-wide studies, process improvement initiatives, and performance improvement priorities.

5.2.1.6. Ensure initiatives align with strategic level Air Force guidance and strategies.

Chapter 6

AWARDS

6.1. CPI Awards.

6.1.1. Individuals or teams who have participated in CPI projects may compete for the Chief of Staff Team Excellence Award or General Larry O. Spencer Innovation Award.

6.1.2. Refer to AFI 36-2868, *Chief of Staff Team Excellence Award*, for more information on the purpose, eligibility, criteria, and nomination processes governing the Chief of Staff Team Excellence Award.

6.2. General Larry O. Spencer Innovation Award.

6.2.1. The General Larry O. Spencer Innovation Award is an AF level award recognizing an individual and/or team who demonstrates innovation in cost and manpower savings to improve efficiency, operational readiness, and replication of the innovation across the Air Force enterprise. Winner(s) will be recognized by the Vice Chief of Staff of the AF at a Pentagon ceremony. SAF/MG will fund the temporary duty (not to exceed four personnel). The award recipient(s) will be announced through an official announcement and have their names engraved on the physical award.

6.2.2. Nomination Process:

6.2.2.1. Active Duty AF, AF Reserve, Air National Guard, and/or DoD civilians (Individual and/or Team) from MAJCOMs, DRUs, and Functional Authorities may nominate for consideration initiatives that have been approved for implementation by the functional authority.

6.2.2.2. Period of award: 1 January – 31 December.

6.2.2.3. Utilize AF Form 1206; not to exceed one page, bulleted format. Headers include: Financial and/or Time Saving Benefits, Scope of Impact, Practicality of Implementation, and Benefits to AF Relationships with Stakeholders.

6.2.3. Criteria:

6.2.3.1. Financial and/or Time Saving Benefits (40 pts). What was the scale of cost/time savings? Did the initiative create measurable and enduring financial efficiencies? What was the overall financial benefit to the taxpayer?

6.2.3.2. Scope of Impact (20 pts). Did the initiative make a fundamental change in processes or simply a minor adjustment? Did the initiative impact multiple functional areas? Did the initiative lead to changes in how Air Force processes are executed?

6.2.3.3. Practicality of Implementation (20 pts). Was it readily integrated into existing systems? Was it cost-effective to implement (return on investment)? Did it lead to more potential uses/applications within other functions of the organization?

6.2.3.4. Benefits to AF Relationships with Stakeholders (20 pts). Did the initiative lead to positive local/community impact? Did the initiative have influence in the DoD and/or Congress? Did the initiative provide tangible benefits to industry partners?

MARILYN M. THOMAS
Deputy Under Secretary of the Air Force,
Management and Deputy Chief Management
Officer

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

DoDD 5010.42, *DoD-Wide Continuous Process Improvement (CPI)/Lean Six Sigma (LSS) Program*

DoDI 5010.43, *Implementation and Management of the DoD-Wide Continuous Process Improvement/Lean Six Sigma (CPI/LSS) Program*

DoD Lean Six Sigma (LSS) Belt Certification Procedures, LSS-9001 Basic, 27 Feb 2013

AFI 1-2, Commander's Responsibilities

AFI 33-360, Publication and Forms Management

AFI 36-2201, Air Force Training Program

AFI 36-2868, Chief of Staff Team Excellence Award

AFI 38-402, Airmen Powered by Innovation

AFI 90-201, The Air Force Inspection System

AFMAN 33-363, *Management of Records*

AFMAN 36-2234, *Instructional System Development*

AFPD 38-4, Management Improvement

Defense Civilian Personnel Data System (DCPDS)

Enterprise Process Improvement Council (EPIC) Charter, dated 23 Jan 2015

Adopted Forms

AF Form 1206, *Nomination for Award*

AF Form 2096, *Classification/On-The-Job Training Action*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFRC—Air Force Reserve Command

AFSO—Air Force Smart Operations

AFSO21—Air Force Smart Operations for the 21st Century

API—Airmen Powered by Innovation

BB—Black Belt

CMO—Chief Management Officer

CPI—Continuous Process Improvement

CPI-MT—Continuous Process Improvement Management Tool

DCMO—Deputy Chief Management Officer
DCPDS—Defense Civilian Personnel Data System
DoD—Department of Defense
DRU—Direct Reporting Unit
E&T—Education and Training
EPIC—Enterprise Process Improvement Council
FOA—Field Operating Agency
GB—Green Belt
HAF—Headquarters Air Force
MAJCOM—Major Command
MBB—Master Black Belt
MPO—Master Process Officer
OPR—Office of Primary Responsibility
PME—Professional Military Education
PPSM—Practical Problem Solving Method
SSC—Senior Steering Committee
WPM—Wing Process Manager

Terms

A3—Standard documentation for the PPSM, named after the size of paper that commercial CPI practitioners use for this purpose.

AF CPI—Formerly known as AFSO and AFSO21. Focuses on the application of several widely accepted process improvement methodologies, including lean, six sigma, theory of constraints, and business process reengineering. Enables Airmen to eliminate waste while maximizing customer value.

AF CPI Portal—Website that is used for AF CPI and project management. Replaces and combines the AFI CPI SharePoint site and Continuous Process Improvement Management Tool (CPI-MT). Found at: <https://cs3.eis.af.mil/sites/OO-TR-AF-43/cpi/Site%20Assets/Home.aspx>

Black Belt (BB) —Black Belts are experienced process improvement practitioners and have significant and recognized process improvement experience. Black Belts are equipped with skills and competencies to facilitate teams across unit boundaries to solve complex process/performance problems, particularly those with vertical/horizontal integration, i.e., cross functional/cross echelon. Black Belts display a mastery of CPI tools and principles on a level that delivers transformation and sustainable lean operations across a unit's value streams.

Business Process Reengineering/Process Reengineering (BPR/PR)—A comprehensive process requiring a change in the fundamental way business processes are performed. Business

Process Reengineering/Process Reengineering identifies unnecessary activities and eliminates them and wherever possible, automates manual procedures.

CPI Project—A problem to which the PPSM and CPI tools are applied. May be used to maximize function effectiveness prior to assessing need for new manpower determinants model. May generate just-do-its, rapid improvement events (RIE), or additional subordinate CPI projects as countermeasures.

Green Belt (GB)—Green Belts are entry-level process improvement practitioners. They operate under the mentorship of experienced BBs and/or MBBs. Green Belts are equipped with basic problem solving skills and competencies to eliminate waste and maximize customer value to solve process problems that do not cross organizational boundaries. Green Belt work includes the deployment and application of lean principles, concepts and methods locally, within a work cell, work group or value stream. Problems requiring more complex tool/technique application require the GB to seek out a BB for assistance.

Lean—A CPI methodology focused on work flow, customer value, and eliminating process waste; unique from traditional process improvement strategies in that its primary focus is on eliminating non-value added activities.

Master Black Belt (MBB)—Master Black Belts are process improvement practitioners with extensive experience and are capable of facilitating the most complex and difficult process improvement challenges. The depth and breadth gained through years of experience, uniquely equip them with the necessary skills to mentor senior leaders and BBs.

Practical Problem Solving Method (PPSM)—Formerly known as the AF 8-Step Problem Solving Model. Standardized approach to properly define a problem, its root cause, countermeasures, and countermeasure implementation. Provides a concise and common format for presentation of data, problem solving facts and information. Eases benchmarking and sharing of best practices when similar problems arise in other areas. The structure provides a common language which more easily translates into common understanding.

Six Sigma—A disciplined, data-driven methodology for process improvement that focuses on satisfying customer requirements while minimizing defects by reducing waste and controlling process variation.

Theory of Constraints (TOC)—A systematic approach to optimize resource utilization by identifying, exploiting, subordinating, elevating, and reassessing constraints in the process. Scientific principles are applied as a set of logical thinking processes to develop transformational breakthrough business solutions. A constraint is any resource with capacity less than the demand placed upon it. Theory of constraints attacks constraints and barriers (a restriction or other block to increases in output).

Attachment 2

BLACK BELT TRAINING REQUIREMENTS

A2.1. Nomination letter from practitioner's group commander or division chief (Colonel/GS-15 (or equivalent)), indicating intention to utilize the practitioner as a BB.

A2.2. Black Belt-scoped project topic with problem statement. Continuous Process Improvement E&T can mentor the practitioner, providing feedback on problem statement, recommended methodology, and project scope.

A2.3. Green Belt certification.

A2.4. Submit nomination packages through the MPO to CPI E&T. Continuous Process Improvement E&T recommends nominees to SAF/MGM for final approval.

Attachment 3

AF CPI CERTIFICATION AND EQUIVALENCY REQUIREMENTS

Table A3.1. Certification and Equivalency Requirements (Equivalency requirements are annotated by Note 2).

	Green Belt (GB)		Black Belt (BB)		Master Black Belt (MBB)
Prerequisite Certification Note 1	None		Green Belt		Black Belt
Commitment	Full Time	Supplemental	Full Time	Supplemental	Full Time
Complete Training	Manpower & Org Apprentice Course - or - AF CPI GB training	AF CPI GB training	AF CPI Black Belt Course		Appropriate industry or federal service training
Length of Time Performing CPI Duties Note 2	6 months	1 year	1 year	2 years	5 years
Demonstrate Project Work to Applicable Standard Note 2, 3	1 project, GB scope		1 project, BB scope		1 project, MBB scope
Recommendation/Endorsement Notes 2, 4, 5	MPO recommends, Commander endorses		MPO recommends, Commander endorses		MPO recommends, Commander endorses
Completed AF Form 2096	Yes		Yes		Yes
Certification Authority Note 2	MPO		SAF/MGM		SAF/MGM

Note:1 – May be waived by SAF/MGM

Note:2 – Also required for equivalency certification

Note:3 – Use scoring methodology on AF CPI portal

Note:4 – Commander endorsement acknowledges commander's commitment to allocating resources to practitioner's project work and certification, willingness to release practitioner for project work, and practitioner's readiness for certification. Template is available on the AF CPI portal.

Note:5 – Use grade sheet to develop MPO recommendation

Attachment 4

SPECIAL EXPERIENCE IDENTIFIER (SEI) MATRIX

Table A4.1. SEI Matrix.

	Enlisted SEI and SEI Title	Officer SEI and SEI Title	Civilian DCPDS Code and Code Title
Orientation	NA	NA	SO0 AFSO21 Orientation
GB Training	NA	NA	SO1 AFSO21 Level 1 Training
GB Certification	005 CPI Green Belt Certification	05 CPI Green Belt Certification	SOL1 AFSO21 Green Belt (Level 1) Certification
BB Training	NA	NA	SO2 AFSO21 Level 2 Training
BB Certification	006 CPI Black Belt Certification	06 CPI Black Belt Certification	SOL2 AFSO21 Black Belt (Level 2) Certification
MBB Training	NA	NA	NA
MBB Certification	007 CPI Master Black Belt Certification	07 CPI Master Black Belt Certification	SOL3 AFSO21 Master Black Belt (Level 3) Certification
SLC	NA	NA	SOL AFSO21 Senior Leader Course (GS-15 (or equivalent) level)
Executive	NA	NA	SOE AFSO21 Executive Course (SES level)