BY ORDER OF THE COMMANDER
SPACE SYSTEMS COMMAND

SPACE SYSTEMS COMMAND
INSTRUCTION 17-150

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Cyberspace Operations

SUPRA CODERS PROGRAM

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This instruction implements AFPD 17-1, *Information Dominance Governance and Management,* and is consistent with *The Guardian Ideal*, Annex B, B.1, (**https://media.defense.gov/2021/Sep/21/2002858512/-1/-1/1/GUARDIAN%20IDEAL%20-%20FINAL.PDF**), and *Z-prefix for Supra Coder Designation* (**http://supracoders.us/static/media/z-prefix.336830c0.pdf**). It provides guidance and procedures on formalizing the implementation plan for the Supra Coder program within Space Systems Command (SSC). This instruction applies to SSC and subordinate units, and USAF personnel assigned to SSC. This instruction does not apply to the Air National Guard or Air Force Reserve Command. Ensure that all records generated as a result of processes prescribed in this publication adhere to AFI 33-322, *Records Management and Information Governance Program*, and are disposed of in accordance with the Air Force Records Disposition Schedule, which is located in the Air Force Records Information Management System. Refer recommended changes and questions about this publication to the OPR using the DAF Form 847, *Recommendation for Change of Publication*; route DAF Forms 847 from the field through the appropriate functional chain of command. This publication may be supplemented at any level, but all supplements must be routed to the OPR of this publication for coordination prior to certification and approval. Submit requests for waivers to the requestor's commander for non-tiered compliance items. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Department of the Air Force (DAF).

1. Purpose, Authority, and Applicability.

1.1. **Purpose.** The Guardian Ideal introduces the Supra Coders concept as "a cadre with mastery of digital competencies to include agile software development, software product management, product lifecycle management, data architecture, data analytics, cyber security, cyber defense, and information technology infrastructure …[that] will form the core of our software coders, data scientists, and information technology experts." This document outlines the implementation plan.

1.1.1. SSC's implementation of the Supra Coder program aims to develop and embed digitally fluent personnel across SSC units from all Air Force Specialty Codes (AFSCs) or Space Force Specialty Codes (SFSCs). As the Supra Coders will remain within their source unit, the sourcing of their support beyond their unit must be approved by the PEO or the Delta Commander.

1.1.2. Supra Coders are not intended to gap-fill manpower shortages or contract support ceilings, nor develop digital solutions that are commercially available, for the purpose of circumventing the Authority to Operate process.

1.2. **Authority.** This instruction is established under the authority of United States Space Force (USSF) Chief Technology and Innovation Office (HQ/CTIO).

1.3. **Applicability.** This instruction applies to all SSC organizations.

2. Roles and Responsibilities.

2.1. **SSC Chief Information Office (SSC/CIO)** will:

2.1.1. Update and review this instruction, as needed.

2.1.2. Act as the SSC OPR for Supra Coders. Inform on the state of the Supra Coder Program.

2.1.3. Review candidate's code portfolio and endorse candidate packages to attend Software Development Immersive. Ideal candidates should have evidence of self-motivated coding projects (e.g. a GitHub repo, Kaggle competitions, portfolio site, StackOverflow contributions).

2.1.4. Secure Information Technology (IT) infrastructure resources and manage access to enable SSC Supra Coders to innovate.

2.1.5. Maintain a list of potential projects for Supra Coders to implement. Supra Coders are not required to work on projects on this list, but it is provided as a communication tool to the community.

2.1.6. Promote and support an open-source community mindset within the Supra Coder community.

2.1.7. Promote iterative and incremental development mindset within the Supra Coder community. Examples of this may include providing scope/difficulty level for items on the potential project list to help novice Supra Coders.

2.1.8. Submit project presentation for catalog and display on the Supra Coder websites (**http://supracoders.us/** and **https://supracoders.il4.dso.mil**).

2.1.9. Evaluate the training program to ensure the curriculum matches SSC skill needs.

2.1.10. Assist SSC Supervisors on how to evaluate Supra Coder contributions at the innovation showcase.

2.2. **SSC Human Capital Directorate (SSC/S1)** will:

2.2.1. Administratively add Z-prefix to personnel records after receiving confirmation from HQ CTIO of the prefix award, either through SDI completion or passing the equivalency test.

2.2.2. Administratively modify Unit Manning Document (UMD) billets to include the Z-prefix as either mandatory or preferred.

2.2.3. Process the Active-Duty Service Commitment (ADSC) for the training window.

2.2.4. Will not factor loss of manning for units with participants in the Supra Coder program nor establish a Supra Coder billet quota on the UMD. Authority to participate in the program is delegated to the unit and their ability to accommodate their ops tempo and manning schedule.

2.3. **SSC Business Innovation Office (SSC/ACX - AtlasX)** will:

2.3.1. Organize innovation showcases.

2.3.2. Organize and manage focused and time-bounded project events, which may be organized as hackathons or jam sessions.

2.3.3. Contribute innovation project ideas to the list maintained by CIO.

2.4. **SSC Supra Coder Supervisors** will:

2.4.1. Approve application packages. Package approval is an agreement that the supervisor will allow the member duty time to use their new digital skills upon completion of the program.

2.4.2. Protect participant "innovation time." Industry examples of this range between 10 to 20% of the duty time. Supervisor and applicant should agree and document the ops tempo in a Memorandum For Record (MFR), prior to application submission (see **Attachment 3**).

2.4.3. Incorporate development project(s) as part of duty performance and report, in coordination with feedback and input from SSC/CIO.

2.4.4. Attend the innovation showcase.

2.5. **Supra Coders** will:

2.5.1. Complete the Supra Coder training, if necessary.

2.5.2. Pass the assessment, as outlined in the HQ CTIO Guideline for Z-prefix.

2.5.3. Present projects at innovation showcases after training completion. Team projects are encouraged, especially between recent and tenured Supra Coders with strong code commit records.

2.5.4. Meet continuous learning requirements to maintain the Z-prefix.

3. Procedures.

3.1. Application

3.1.1. Must require supervisor approval with commitment to protect the returning member's innovation time. This should be formally documented, such as in an MFR, signed by the member and supervisor (See **Attachment 3**).

3.1.2. IAW AFMAN 36-2100, *Military Utilization and Classification*, Attachment 2, Table A2.1., Officer and Enlisted ADSCs, Rule 28: graduates will incur a 3-year Active Duty Service Commitment (ADSC) upon completion of the training course (concurrent to other commitments).

3.1.3. Supra Coder attends the Software Development Immersive (SDI) program, which enables eligible participants to learn methodologies for working on production code and is run in unified partnership with the leading Space Force software factories. The SDI academic portion concludes with an exit exam. The SDI website (**http://supracoders.us/** and **https://supracoders.il4.dso.mil**), includes pertinent and up-to-date information, including the application instructions, training program syllabus, and repository of final project presentations.

3.2. Clarifications.

3.2.1. The Z-prefix does not constitute a new AFSC nor SFSC, but rather a special qualification designator.

3.2.2. The member remains assigned to their unit and upon completion of the training, the member returns to the unit. Time-on-Station (TOS) is not recalculated. Permanent Change of Assignment (PCA) and Permanent Change of Station (PCS) are not implied at the completion of the training. The unit will not receive a gapfill while the member is at training, which includes both the course time and the time interning at a software factory.

3.2.3. Projects are self-directed; leadership may provide a priority list of needs/gaps/areas of improvement, but the Supra Coders have agency to work on a project of their choosing that falls within digital competencies. Projects must be presented at the innovation showcase. If contributions are across multiple projects, the member should present on their specific contributions to the portfolio of project's codebase.

3.2.4. Program Executive Officers (PEOs) have the flexibility to resource and operate their existing Supra Coder programs. This includes the flexibility to PCA graduated Supra

Coders within their organization and/or set up innovation units for Supra Coders (such as SLD/45 FORGE).

3.2.5. Both Guardians and Airmen may apply, with no AFSC or SFSC restrictions.

3.2.6. Supra-Coder Z-prefix is only awarded to coders, developers, or analysts completing the full SDI program or passing the equivalency test. User Experience (UX) designer and Program Managers (PM) that do not complete the full SDI course are not awarded the Z-prefix to avoid confusion when assigning Z-prefix personnel to Z-prefix billets.

3.3. Projected issues.

3.3.1. Lack of innovation time. Supra Coders should first address this issue with their supervisor and work out a schedule that protects innovation time, which may be documented in an MFR. Participants are encouraged to have a project outline prior to setting up this meeting. Subsequent issues should be elevated to SSC/CIO, and then to SSC/CD.

3.3.2. Unable to pass the exams. ADSC is not waived for the time in training, as the member has self-study and practice opportunities to earn the Z-prefix later. To encourage development, member should not face administrative or other kind of discipline for failing to pass the exams, provided the instructors document that the student earnestly attempted to learn and practice assigned course material.

3.3.3. Scope and resources. The projects presented to the Supra Coders program must be determined to have well-defined requirements and be feasible with the resources available. If requirements are not well defined, the software engineers can divert from the expected outcome requested from the customer. Projects and Supra Coders must take into consideration the number of resources (Supra Coders, hardware, software etc.) and experience of the team. Otherwise, the projects will not be completed by the expected deadlines.

D. JASON COTHERN, Brigadier General, USSF
Deputy Commander, Space Systems Command

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 33-322, *Records Management and Information Governance Program,* 23 March 2020

AFMAN 36-2100, *Military Utilization and Classification,* 7 April 2021

AFPD 17-1, *Information Dominance Governance and Management,* 12 April 2016

The Guardian Ideal, 27 September 21

Z-prefix for Supra Coder Designation, 13 May 21

Prescribed Forms

None

Adopted Forms

DAF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

ADSC—Active Duty Service Commitment

AFSC—Air Force Specialty Codes

MFR—Memorandum For Record

SFSC—Space Force Specialty Codes

UMD—Unit Manning Document

Office Symbols

SSC/CD—Space Systems Command Deputy Commander

SSC/CIO—Chief Information Officer, Space Systems Command

SSC/S1—Space Systems Command Human Capital

Attachment 2

DEVELOPMENT PROGRAM EXAMPLES

Table A2.1. Development Program Examples.

The following programs were examined in the design of the SSC Supra Coder Program.

Advanced Academic Degree (AAD)
- https://mypers.af.mil/app/answers/detail/a_id/49652 (USSF)
- https://mypers.af.mil/app/answers/detail/a_id/14396/p/9 (USAF)
- Incurs ADSC
- Thesis required
- Searchable catalog for the graduation product (thesis)
- Status updated into personnel records (i.e. AAD unmasked on SURF)
- UMD billet positions include AAD-preferred and AAD-required, with option to designate shreds (see afman36-2100.pdf)
- Shreds based on tracks (i.e. Data analyst track vs full-stack developer)
- For PhD level, applicants are screened for publication track record above and beyond what is necessary to obtain a MS degree, and academic/research contributions after completion of the MS degree.

Honor Guard
- https://www.honorguard.af.mil/About-Us/Base-Honor-Guards/
- Permission and blocked time to carry out additional duty. Unit will "honor the aforementioned incentives and will ensure this member is available when called upon to perform honor guard details"
- Member returns to unit and sits in unit billet
- Congressional mandated function
- Contract template
- Typically short duration events

Language Enabled Airman Program (LEAP)
- https://www.airuniversity.af.edu/AFCLC/Language-Studies/
- Remains in current unit
- Periodic re-testing of skills (Defense Language Proficiency Test)
- Centralized training funds to help members maintain skills
- Board selected (skill is necessary but not sufficient to enter the program)

Attachment 3

SAMPLE MFR

Table A3.1. Sample MFR.

MEMORANDOM FOR SSC/CIO

FROM: (unit)

SUBJECT: Endorsement for new Supra Coder

1. I endorse <rank, first name, last name> to attend the Supra Coder training. I have counselled the individual on their service commitment obligations for the program and the expectations after completion of the program, which is that they will return to their current billet.

2. As supervisor, I acknowledge that <rank, first name, last name> will not be backfilled during the length of the training program, including the internship.

3. After the certification, I also approve <X% duty time or Y hrs/week> to work on innovation coding project(s), so that the individual may meet the requirements as a Supra Coder and present their project contributions at the SSC innovation showcase, which will be incorporated into their performance review. On a case-by-case basis, I will approve their participation in SSC-organized hackathons.

4. Should mission requirements no longer allow for their participation, I agree to notify SSC/CIO and SSC/S1.

<Supervisor Signature Block>

1st Ind, SSC/CIO

I have reviewed the applicant's package and coding portfolio and concur/non-concur on their application.

_____

(SSC/CIO Software Representative)

2nd Ind, Supra Coder

I have been briefed on my responsibilities and commitments as a Supra Coder and accept the conditions of the program. I acknowledge that I am responsible for coordinating time to work on innovation projects and my mandatory participation in the innovation showcases, and my effort will be considered in performance evaluations.

_____

(Member Signature/Date)