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USCYBERCOM J7

DEPARTMENT OF DEFENSE
UNITED STATES CYBER COMMAND
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MEMORANDUM FOR RECORD

SUBJECT: (U) CYBER LIGHTNING 2019 After Action Review

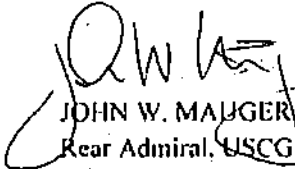
1. (U//~~FOUO~~) **Background.** From 13-26 March 2019, USCYBERCOM Headquarters, components, and partner agencies participated in the execution of the CYBER LIGHTNING (CL) 2019. CL is an annual Joint Exercise Program (JEP) Tier 1 Command Post Exercise; subsequently, CL 19 was linked to the AUSTERE CHALLENGE exercise, executed by USEUCOM in partnership with linked exercises for the Joint Staff, USSTRATCOM, USTRANSCOM, NORAD-NORTHCOM and NATO. The exercise scenario challenged the U.S. and allied forces to address both regional and global challenges from near peer competitors. USCYBERCOM acted as the global cyber coordinator and supported USEUCOM across the tactical, operational and strategic levels.

2. (U//~~FOUO~~) **After Action Report (AAR).** The attached Annex A is a synthesis of key observations and lessons learned documented by the USCYBERCOM J74 during the CL 19 Joint Exercise Lifecycle, and provided by the training audience (Directorates, CNMF, JFHQ-Cs, Service Components, CO-IPEs, and JFHQ-DODIN) and the Joint Chief of Staff (J7) Deployable Training Team (DTT). The Joint Staff (J7) Deployable Training Team AAR (Annexes B and C), observations captured by the USCYBERCOM HQ staff (ANNEX D), and academics summaries (ANNEX E) are also attached to this report. The AAR is approved for dissemination within USCYBERCOM, Department of Defense, and to all appropriate mission partners, effective the date of this letter.

3. (U) **Point of contact.** The USCYBERCOM Exercise Assessments and Lessons Learned Division Chief [REDACTED]

(b)(3) 10 U.S.C. § 130b

(b)(6)


JOHN W. MAUGER
Rear Admiral, USCG
USCYBERCOM J7

Attachments:

- Annex A: USCYBERCOM, CL 19 After Action Review
- Annex B: USCYBERCOM, CL 19 Directorates Hotwash Slides (Extended Version)
- Annex C: Joint Staff J7 DTT, CL 19 Executive Summary
- Annex D: Joint Staff J7 DTT, CL 19 Consolidated Functional Report
- Annex E: Summaries of the Academic and Senior Leader Seminars

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CYBER LIGHTNING (CL) 19 After Action Summary

BLUF: CYBER LIGHTNING (CL) 19 demonstrated USCYBERCOM's increased maturity as an elevated functional Combatant Command (CCMD), and highlighted USCYBERCOM's ability to support other Combatant Commands through global cyberspace operations. Both the training audience and observers noted continued maturation of internal communications and coordination within the command, as well as the improved integration of cyberspace operations into supported CCMD's plans and operations. USCYBERCOM must continue to emphasize Persistent Engagement and the integration of cyberspace operations into all phases of CCMDs planning and operation. USCYBERCOM must continue to stress the need for decision-making at the speed of cyber through: the use of Cyberspace Operations Integrated Planning Elements (CO-IPE), a unified and distributed Common Operations Picture tool, and further refinement of the roles and responsibilities by developing terms of reference with the supported commands.

Background: From 13-26 March 2019, USCYBERCOM Headquarters, components, and partner agencies participated in the execution of the CL 19. CL is an annual Joint Exercise Program (JEP) Tier 1 Command Post Exercise. CL 19 was linked to the AUSTERE CHALLENGE exercise executed by USEUCOM in partnership with linked exercises for the Joint Staff, USSTRATCOM, USTRANSCOM, NORAD-NORTHCOM and NATO. The exercise scenario challenged U.S. and allied forces to address both regional and global challenges from near peer competitors. USCYBERCOM acted as the global cyber coordinator and supported USEUCOM across the tactical, operational and strategic levels. A Joint Chief of Staff (J7) Deployable Training Team (DTT) observed the USCYBERCOM HQ, JFHQ-C AIR FORCE, JFHQ-DODIN, and the relevant Cyber Operations Integrated Planning Elements (CO-IPE).

CL 19 Exercise Objectives:

1. Exercise USCYBERCOM headquarters, CNMF, JFHQ-Cs, and Components' warfighting capabilities centered on the interoperability of systems, processes, and forces in a multinational, all-domain Command and Control construct.
2. As supported CCMD, conduct global synchronization of cyberspace operations through coordination and deconfliction of CNMF, JFHQ-Cs, and JFHQ-DODIN operations in support of FCP-CO/SCPs focused on the primary scenario adversary.
3. Exercise the synchronization of Board, Bureau, Cell, Committee, or Working Group (B2C2WG) across USCYBERCOM staff, CNMF, JFHQ-Cs, JFHQ-DODIN, Service Components, and CO-IPEs, in support of one or more CCMDs.
4. Plan and direct DCO on DODIN regionally and globally, synchronize the employment of global enterprise resources, and deny adversary delivery of effects in support of CCDRs' strategic and operational objectives.
5. Conduct OCO regionally and globally, synchronize the employment of global enterprise resources, and deliver effects in support of CCDRs' strategic objectives.
6. Conduct Joint Targeting Process ICW joint and interagency partners.
7. As supporting CCMD to USEUCOM, USSTRATCOM, and USTRANSCOM, employ CNMF, JFHQ-Cs and Service Components in support of Functional and Geographic CCMD plans and operations. Deploy personnel to supported CCMD locations projecting CO-IPEs at IOC level in order to inform the build of CO-IPEs as defined in the Joint Staff Cyberspace C2 EXORD.

USCYBERCOM Key Findings: Leadership and DoD observers noted USCYBERCOM is maturing and made considerable progress refining and demonstrating warfighting capability. Specific areas include:

1. **Terms of Reference.** USCYBERCOM should develop Terms of Reference with the supported CCMDs to clarify the roles and responsibilities for the CO-IPE and their respective relationships with organizations within the supported CCMD as well as their relationships with USCYBERCOM Headquarters and Components. The Terms of Reference will also help to better align CCMD expectations for support by reinforcing the JFHQ-C as the single face for cyber to that CCMD.

2. **CO-IPE Integration.** Continue to mature the integration of CO-IPEs into the supported CCMD and further develop CO-IPE training needs. There was recognition that CO-IPE need [REDACTED]

[REDACTED] CL 19 CO-IPE academics led to the development of a new Concept of Employment (CONEMP) prior to CL 19-2. USCYBERCOM needs to continue to use the lessons learned to further refine and promulgate the CONEMP.

3. **Authorities.** Continue to identify and assign authorities during pre-mission planning activities for cyberspace and information operations. USCYBERCOM needs to continue to work with other CCMDs, Department of Defense (DoD), and government agencies to identify and assign authorities [REDACTED]

4. **Request for Support/Forces.** Continue to refine and document policy and processes for CCMD's to request support and/or forces from USCYBERCOM. The exercise highlighted [REDACTED]

[REDACTED] While clarifications were provided during the exercise, these clarifications must be documented in policies and processes to promote consistency in future events.

5. **Risk and Vulnerability.** Assessing operational cyber risk [REDACTED]

[REDACTED] Considering/communicating risk as part of our planning and engagement with supported CCMD will enable USCYBERCOM and components to improve understanding of risk and vulnerabilities when allocating DCO forces or assigning missions.

6. **Target Deconfliction.** Continue to develop target coordination and de-confliction processes with key interagency partners in order to ensure the command can deliver timely and effective cyber effects. This is particularly important during [REDACTED]

[REDACTED] Future exercises should seek to actively engage interagency representatives in the targeting and deconfliction process [REDACTED]

7. **Common Operation Picture (COP).** USCYBERCOM implemented a prototype COP for CL 19-2 which successfully integrated several C2 tools [REDACTED] and displayed the results at specific training audience sites. The prototype was well received and provided key insights into future needs and challenges. Going forward, USCYBERCOM needs to integrate and display data and information across the operational, tactical, and strategic levels. Equally important, USCYBERCOM needs to be able to share this display with supported CCMDs, partners and allies in a manner that is accessible and familiar to the supported/partner audience.

8. **Synchronization of C2.** USCYBERCOM supported four separate CCMDs and the Joint Staff during CL 19. This highlight the need to synchronize battle rhythms, share Decision Support Matrices, and maintain unified Common Operation Picture to promote situational awareness and unity of effort among

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all participants. Key observations included needs to: [REDACTED]

[REDACTED] JFHQ-C AIR FORCE's daily synchronization with all CO-IPE was regarded as a best practice for future contingencies.

9. **Alignment of Forces.** During the exercise all of the cyber support teams were aligned against [REDACTED]

10. **Cyber Support Planning.** USCYBERCOM has to develop a family of plans, to include specific Cyber Support Plans (CSP) to CCMDs' Integrated Contingency Plans. During the initial operational phases, the command's Supporting Campaign Plans (SCP) were key in providing a deliberate plan aligned against a specific adversary. However, [REDACTED]

11. **Classification.** CL 19 included participation with multiple allies and NATO. This stressed USCYBERCOM's ability to share information. During the exercise a best practice was the J3's decision to request broader authority for sharing classified information with allies in support of operational deconfliction. In order to sustain a coalition fight, [REDACTED]

[REDACTED] must be a key planning concern.

12. **Assessments and Evaluations.** The USCYBERCOM staff matured their assessments and evaluations with the successful stand up of J5's operational Assessments Working Group (AWG), J7's Evaluation and Observations Working Group (EOWG), and J3's operational assessment. This exercise was the first time that USCYBERCOM stood up an operational assessment of the ongoing operations. This is a best practice that needs to continue to mature in future contingencies and exercises.

13. **NATO Cyber C2.** The exercise highlighted [REDACTED] to NATO forces. It was recognized that the U.S. would [REDACTED]

14. **Liaisons.** The comprehensive nature of a global conflict highlighted the need for whole of government coordination across multiple fronts, including: combatting malicious cyber actors with law enforcement, defending US and allied CIKR and key cyber terrain in support of both DHS and DOD (transportation and basing), and improved alignment with the integrated operations division on the Joint Staff. These instances highlighted the need for USCYBERCOM LNO's within these organizations.

15. **Reserve Capability.** The evolving threats throughout the conflict required USCYBERCOM to maintain a DCO force in reserve for emerging issues. J3 conducted dynamic force employment throughout the exercise. The exercise highlighted [REDACTED]

[REDACTED] diversity of experience and skills are critical in the reserve allocation due to the unknown nature of the emerging issue; providing clear expectations and communications about which forces are allocated for reserve capability is key to enabling services/components to manage their forces.

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USCYBERCOM

Austere Challenge/ Cyber Lightning

After Action Review

25 March 2019

THE OVERALL CLASSIFICATION IS: ~~SECRET//REL TO USA, FVEY~~

~~SECRET//REL TO USA, FVEY~~



(U) CYBER Lightning 2019 Exercise Objectives

(b)(3) 10 U.S.C. § 130e

1. (U//FOUO) Exercise USCYBERCOM headquarters, CNMF, JFHQ-Cs, and Components' warfighting capabilities centered on the interoperability of systems, processes, and forces in a multinational, all-domain Command and Control construct [REDACTED]
2. (U//FOUO) As supported CCMD, conduct global synchronization of cyberspace operations through coordination and deconfliction of CNMF, JFHQ-Cs, and DODIN operations in support of FCP-CO/SCPs focused the primary scenario adversary [REDACTED]
3. (U//FOUO) Exercise the synchronization of B2C2WG across USCYBERCOM staff, CNMF, JFHQ-Cs, Service Components, and CO-IPEs, in support of one or more CCMDs
4. (U//FOUO) Plan and direct DCO on DODIN regionally and globally, synchronize the employment of global enterprise resources, and deny adversary delivery of effects in support of CDRs' strategic and operational objectives [REDACTED]
5. (U//FOUO) Conduct OCO regionally and globally, synchronize the employment of global enterprise resources, and deliver effects in support of CDRs' strategic objectives [REDACTED]
6. (U//FOUO) Conduct USCYBERCOM Joint Targeting Process ICW joint and interagency partners [REDACTED]
7. (U//FOUO) As supporting CCMD to USEUCOM, USSTRATCOM, and USTRANSCOM, employ CNMF, JFHQ-Cs and Service Components in support of Functional and Geographic CCMD plans and operations. Deploy personnel to supported CCMD locations projecting CO-IPEs at IOC level in order to inform the build of CO-IPEs as defined in the Joint Staff Cyberspace C2 EXORD [REDACTED]



USCYBERCOM CL 19

J0 AAR Comments

**(U) Organization: USCC J0 GRD****Topic: Need for RFIs**

OPR: USCYBERCOM

OCR: USCYBERCOM

Observation Discussion and Background: (Is this a SUSTAIN or IMPROVE)

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Requests for information to external commands needs a formal process. Most requests to the Guard and Reserve Division during Cyber Lightning were via semi-formal emails. Most of these [REDACTED]

[REDACTED] Lack of a formal RFI process made the flow of requests, and tracking a status, difficult.

Recommendation (Way ahead):

To resolve this problem, the following actions are recommended:

1. Clearly define and utilize an RFI tracker
2. Ensure that all formal requests are entered into an RFI tracker and assigned some type of number, etc. GRD should be designated an assignee within the RFI tracking system.
3. Post all interactive data into the RFI tracker and only use email traffic to reference the tracker

Impact if not addressed:

If this is not addressed, it [REDACTED]

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



(U) Organization: USCC J0 GRD

Topic: Refine [REDACTED]

(b)(5)

OPR: USCYBERCOM

OCR: [REDACTED]

Observation Discussion and Background: (IMPROVE)

During the exercise, it became evident that procedure to request and approve [REDACTED]
[REDACTED] in support of USCYBERCOM was [REDACTED]
[REDACTED]

[REDACTED] if they will provide support to USCYBERCOM mission.

Recommendation (Way ahead):

The Guard and Reserve Division will work with USCYBERCOM Global Force Management office, Joint Staff, and the Services to [REDACTED] in support of USCYBERCOM and work to develop a standardized process for [REDACTED]

Impact if not addressed:

Having access to [REDACTED] process is difficult requiring numerous coordination with external organizations. Well practiced [REDACTED] would ensure [REDACTED] will be requested and available in a timely manner.

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



USCYBERCOM CL 19

J1 AAR Comments



(U) Organization: J1 Topic: CAT/OPT

OPR: J3

OCR: OCR: USCYBERCOM, CNMF HQ'S, JFHQ-DODIN & SERVICE CYBER COMPONENTS

Observation Discussion and Background: (SUSTAIN)

(U//FOUO) The use of the CAT/OPT members have improved since previous exercises. The battle rhythm was in the line with the expectations of a CAT/OPT providing the situational awareness and coordination required. Members were not sequestered for 24 hours working on tasked irrelevant to the environment. The plan of identifying and activating the appropriate CAT members in accordance with the current operational situation was effective.

Recommendation (Way ahead):

(U//FOUO) Continue the current process as exercised

Impact if not addressed:

(U//FOUO) Maintaining this battle rhythm provides efficiencies across the C2

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)

**(U) Organization: J1 Topic: Personnel Accountability**

(b)(5)

OPR: J1

OCR: OCR: USCYBERCOM, CNMF HQ'S, JFHQ-DODIN & SERVICE CYBER COMPONENTS

Observation Discussion and Background: (IMPROVE)(U//~~FOUO~~) USCYBERCOM

The command

Recommendation (Way ahead):(U//~~FOUO~~) There should be a

Establish

Impact if not addressed:(U//~~FOUO~~) Difficulty in

The above relates to CL19 Training Objective:

The above relates to CL19 Exercise Objective:

(U) OP 4.4.2.2. Manage Personnel Accountability and Strength Reporting

(U) OP 4.4.2.2. Manage Personnel Accountability and Strength Reporting



USCYBERCOM CL 19

J2 AAR Comments



(U) Organization: J2 Topic: Mission Manager

(b)(1) Sec. 1.4(a)(g)

OPR: J2

OCR:

Observation Discussion and Background: (SUSTAIN). (S//REL) The new JIOC construct [redacted] Mission Manager was validated over the course of the exercise. [redacted] was integrated with [redacted] to provide integrated support to the CDRUSCYBERCOM and staff.

Recommendation (Way ahead): (U) Better define the role of the Mission Manager vis-à-vis the other teams inside the J2 for exercises and crises. Expand the role of the Integration Branch and the Watch team to (1) ensure better integration from other analytic teams; (2) supplement KM processes; and (3) provide broader SA of the global crisis/scenario.

Impact if not addressed: (U) Inefficient intelligence support to Commander and Staff. Lost opportunity to maximize benefit of Mission Manager concept.

The above relates to CL19 Training Objective:

(U)
(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)
(U//FOUO)



(U) Organization: J2

Topic: ICC Integration

OPR: J2

OCR: J4

Observation Discussion and Background: (SUSTAIN) J2 staff presence in the JOC helped ensure maximum team support, coordination and synchronization, accomplishment of training objectives, and helped compensate for many battle rhythm inconsistencies, KM inadequacies, and VTC/Polycom failures. J2 support to planners 24/7 underpinned plans development, including OPORDs, CDR's Estimates, and Branches and Sequel development. Presence in the ICC enhanced the opportunity to interact with the J2 Watch, as well as the Integration Team

Recommendation (Way ahead): The J2 should prioritize its ICC JOC footprint. Conduct comprehensive assessment of KM support to intelligence operations, develop plan for effective KM, implement and assess.

Impact if not addressed: (U) Impeded ability to seamlessly integrate with J3/J5, as well as other key intelligence teams. Continued ineffective KM across intelligence operations.

The above relates to CL19 Training Objective:

(U)
(U)
(U)
(U)
(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)
(U//FOUO)
(U//FOUO)
(U//FOUO)
(U//FOUO)

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(U) Organization:

J2

Topic: Coalition Integration

(b)(5)

OPR: J2

OCR:

Observation Discussion and Background: (IMPROVE)

(U//FOUO)

Recommendation (Way ahead):

Battlefield management tools, including COP and CUB needs to be [REDACTED]
 [REDACTED] consistent with the Commander's intent and guidance. Intelligence for exercise scenarios, as well as CCMD and IC publishing must follow suit.

Impact if not addressed:

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO) (U//FOUO)



(U) Organization: J2 Topic: Process Seams

(b)(5)

OPR: J2

OCR:

Observation Discussion and Background: (IMPROVE) (U//REL) In several forums confusion surfaced regarding terminology, responsibilities and processes between the supported and supporting J2 teams. Examples include: USCYBERCOM J2 conducting target development instead of the apportioned CYBER component; the role of the intelligence teams for various phases of BDA for Cyber Operations; and conflation of [redacted] in the Cyber domain. Additionally, CYBERCOM J2 supported intelligence processes that should be conducted by the supported command (eg, evaluating and nominating [redacted] for action in the campaign).

Recommendation (Way ahead):

Continue established training and engagement (J2 Summit) at the Director/Principal level between USCYBERCOM J2 and it's components to improve understanding of roles and responsibilities, as well as required training. Continue working level engagements between USCYBERCOM J2 and component intelligence staffs to improve capability and readiness in these areas. Assess through DRRS reporting.

Impact if not addressed:

[redacted]
Continued confusion of roles and responsibilities with the combatant command performing component tasks.

The above relates to CL19 Training Objective:

(U)
(U)
(U)
(U)
(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)
(U//FOUO)
(U//FOUO)
(U//FOUO)
(U//FOUO)

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(U) Organization: J2 Topic: Providing Strategic Context

OPR: J2

OCR:

Observation Discussion and Background: (IMPROVE)

(S//REL) The J2 cell started the exercise by reporting tactical and operational threat incidents. In order to provide Strategic Context to many operational and tactical events, J2 team produced numerous Intel Desk notes to supplement briefings and coordination efforts. The J2 team also improved CUB presentation to provide strategic to operational overview [redacted] and address late-breaking insights. Additionally, the CYBERCOM [redacted] team conducted significant [redacted]

Recommendation (Way ahead): (S//REL) The analytical focus quickly evolved to providing the theater and global perspective on the conflict with specific CYBERCOM-relevant context to inform CDRUSCYBERCOM and staff, as well as providing critical analysis and insights to the CYBER component intelligence teams and the supported Command J2. The J2 team used [redacted]

Sustain the innovations developed during the exercise and incorporate into routine product lines, operations, and training.

Impact if not addressed: (U) Intelligence struggles for relevancy and performance does not meet CDR requirements.

The above relates to CL19 Training Objective:

(U)
(U)

[redacted]

The above relates to CL19 Exercise Objective:

(U//FOUO)
(U//FOUO)

[redacted]



USCYBERCOM CL 19

J3 AAR Comments



(U) Organization: J33 Topic: Common Operational Picture

OPR: J3

OCR: J3 and J9

(b)(1) Sec. 1.4(a)(g)
(b)(5)

Observation Discussion and Background: (Is this a SUSTAIN)

(S//REL) J33 was able to successfully provide [REDACTED]

[REDACTED] the capabilities proved invaluable in synchronizing the force.

Recommendation (Way ahead):

Sustaining momentum with [REDACTED]

Provide resources to [REDACTED]

Impact if not addressed:

(U//FOUO) The JOC must [REDACTED]

(b)(5)

The above relates to CL19 Training Objective:

(U)

(b)(3) 10 U.S.C. § 130e



(U) Organization: J33

Topic: GIE Internal-only

(b)(1) Sec. 1.4(a)(g)
(b)(5)

OPR: Joint Staff

OCR: CCMD Commanders

Observation Discussion and Background: (IMPROVE)

(C//REL)

During the exercise

Recommendation (Way ahead):

(U)

(b)(5)

Impact if not addressed:

(U//FOUO)

The above relates to CL19 Training Objective:

(U//FOUO)

(b)(3) 10 U.S.C. § 130e



(U) Organization: J33 Topic: FUOPS and CUOPS

(b)(1) Sec. 1.4(a)(g)
(b)(5)

OPR: J3

OCR: J33 and J35

SECRET//REL TO USA, FVEY

Observation Discussion and Background: (SUSTAIN)

(S//REL)

Recommendation (Way ahead):

(U) Continue to

Standardize
Incorporate

processes into daily operations.

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Impact if not addressed:

(U)

The above relates to CL19 Training Objective:

(U)

(b)(3) 10 U.S.C. § 130e

SECRET//REL TO USA, FVEY



(U) Organization: J34 Topic: Guard/Reserve Readiness Posture

OPR: J34

OCR: Guard and Reserve

Observation Discussion and Background: (SUSTAIN)

(S//REL) USCYBERCOM

Recommendation (Way ahead):

(S//REL)

Impact if not addressed: (S//REL)

(b)(1) Sec. 1.4(a)(g)
(b)(5)

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



(U) Organization: J35 Topic: Operation Assessment (OA) Coordination

OPR: J3

OCR: J-Dirs, Components

Observation Discussion and Background: (SUSTAIN)

(U//FOUO) OPT and CUB provided a forum to link Operation Assessment (OA) personnel with planning actions impacting the OA of the operation. J-dirs and Subordinate HQs participation and coordination as part of data collection requirements were key to development and initial operation assessment during EX CL 19.

(U//FOUO) The establishment of an Assesment Working Group (AWG), and coordination with the OPT informed J-dirs and Subordinate HQs of necessary actions to support the Command's OA. The AWG was the B2C2WG battle rhythm event used to bring the right stakeholders (J-DIRs and Subordinate HQs) together to update the OA framework, coordinate, and assess the operation. Initial coordination and data input from stakeholders was sporadic; however, over the course of the exercise coordination with and among stakeholders improved substantially.

Recommendation (Way ahead):

(U//FOUO) Maintain linkage from planning through execution of AWG and JPG/OPT.

Impact if not addressed:

(U//FOUO) OA not informed by and accounted for in operational design, resulting in inefficient assessment of campaigns and operations.

The above relates to CL19 Training Objective:

(U//FOUO)

(b)(3) 10 U.S.C. § 130e



(U) Organization: J33 & J35

Topic: Cross-CCMD/ IO Coordination

(b)(5)

OPR: J3

OCR: Components

(b)(1) Sec. 1.4(a)(g)

(b)(5)

Observation Discussion and Background: (IMPROVE)

(U//FOUO)

(S//REL) In the exercise scenario,

Recommendation (Way ahead):

(U) All components need clear guidance on

Impact if not addressed:

(U//FOUO)

The above relates to CL19 Training Objective:

(U//FOUO)

(b)(3) 10 U.S.C. § 130e



(U) Organization: J35

Topic: Readiness/Dynamic Force Reprioritization

OPR: J3

OCR: Components

(b)(1) Sec. 1.4(a)(g)
(b)(5)

Observation Discussion and Background: (IMPROVE)

(U//FOUO) USCYBERCOM's maturing process for [REDACTED]

(S//REL) [REDACTED]

(U) USCYBERCOM's processes are maturing and are [REDACTED]

Recommendation (Way ahead):

(U) USCYBERCOM needs to [REDACTED]

(U) [REDACTED]

Impact if not addressed:

(U//FOUO) [REDACTED]

The above relates to CL19 Training Objective:

(U//FOUO) [REDACTED]

(b)(5)



USCYBERCOM CL 19

J4 AAR Comments



(U) Organization: J4

Topic: Force Flow / JOPES

OPR: USCYBERCOM/J4/J3

OCR: Component/Subordinate HQ

Observation Discussion and Background: (IMPROVE - Executing)

While significantly improved in this exercise, the Command still needs to improve the integration of JOPES for force deployment planning and execution. A CJCS directed requirement, the use of JOPES and associated TPFDD identification/coordination of deploying forces is a critical element of globally integrated force flow management. Additionally important for CYBERCOM, the use of JOPES in planning inherently forces consideration of realistic time and location relationships, which is critical in building an effective expeditionary culture. During exercise execution, [REDACTED]

Recommendation (Way ahead):

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CYBERCOM and component/subordinate headquarters need to improve the full and formalized acceptance of, and compliance with, the use of JOPES for all deployments of CMF and JFHQ-C force capability. Additionally, this must be coupled with an understanding that a CYBERCOM deployment constitutes any forward movement of GFMIG-assigned forces (personnel and/or equipment) in support of global, full spectrum cyber operations without regard for deployment location (CONUS or OCONUS), duration, time-sensitivity, method of transportation, orders generation process, etc.

Impact if not addressed:

CYBERCOM force movement planning and execution will continue to be out of alignment with joint process, and the Command will continue to be challenged by non-standard and inconsistent deployment processes.

The above relates to CL19 Training Objective:

(U) JS0000160311 – Deploy [...] allocated forces

(U) JS0000161072 – Coordinate procedures for joint personnel status reporting [...] in a theater of operation or joint operations area (JOA)



(U) Organization: J4

Topic: Contingency Planning

OPR: USCYBERCOM/J5

OCR: JFHQ-Cs

Observation Discussion and Background: (IMPROVE - Planning)

Multiple challenges encountered during CL19-2 resulted from desynchronization of detail-level force flow planning at the culmination of CL19-1. CL19-1 represented contingency plan development for execution during (-2); but no pre-identified anticipated force requirements list was developed/approved. While an anticipated force requirements list was eventually identified after the conclusion of (-1), failure to achieve this as part of (-1) execution prevented full coordination and awareness. Impacts included (1) not having known shortfall requirements fully identified, preventing the opportunity for timely inclusion in RFFs, SDOB force allocation, and Reserve Component activation; (2) inability to fully capitalize on pre-planning activities in support of OPORD generation directing early Command response activities [redacted] and (3) delays in presentation of Commander force allocation decision points.

Recommendation (Way ahead):

CYBERCOM needs to expedite the development of supporting plans for existing integrated contingency plans. At present, CYBERCOM requirements [redacted]

[redacted] The force requirements data from CL-19 may serve as a useful reference point for development of force lists for Command support plans to this scenario.

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Impact if not addressed:

Inability to capitalize on contingency pre-planning activities in support of crisis action decisions and operations

The above relates to CL19 Training Objective:

(U) JS0000162925 -- Provide guidance on [...] resources [...] to Service staffs, Service major commands, and combatant commands (CCMD) planners.

(U) JS0000160311 -- Deploy [...] allocated forces

**(U) Organization: J4****Topic: Orders / Deployment Synch**

OPR: USCYBERCOM/J3/J4

OCR: JFHQ-DODIN, CNMF

Observation Discussion and Background: (IMPROVE - Directing)

Significant confusion resulted from what appeared to be the intersection of contingency requirements for Command-level decision making and force allocation with existing steady-state sourcing and orders generation processes. Formal documentation of DODIN-directed DCO team deployment activities was not consistently synchronized with CDRUSCYBERCOM guidance, and subsequent adjustments were not captured in formal orders correspondence. While much of this resulted from natural fog and friction given the speed of real-time decision making, the departure from established process flow caused confusion and impeded the ability of HQ and component/subordinate staffs to stay abreast of Commander intent and effectively maintain enabling coordination at desired operational pace.

Recommendation (Way ahead):

1. Formal orders processes need to be refined to more effectively direct actions required of Component and Subordinate Commands.
2. Formalize Command force deployment validation processes leveraging existing JOPES processes and Command/Component/Subordinate operations and logistics interface.

Impact if not addressed:

Challenges in C2 processes will continue to exist, further complicated by potential limitations on Commander ability to make at-speed adjustments due to deployed forces physically out of position to effect desired actions.

The above relates to CL19 Training Objective:

(U) JS0000160311 -- Deploy [...] allocated forces

(U) JS0000161072 -- Coordinate procedures for joint personnel status reporting [...] in a theater of operation or joint operations area (JOA)



USCYBERCOM CL 19

J5 AAR Comments

**(U) Organization: J5****Topic: CFMAP support to Exercise**

OPR: USCYBERCOM

OCR: J5

SUSTAIN

Observation: (U//~~FOUO~~) The Command's Cyber Force Mission Alignment Process (CFMAP) support proved to be key during all phases of the exercise.

Discussion: (U//~~FOUO~~). CFMAP proved to be key during all phases of the exercise by informing the Command and Commander of the only deliberate plan for strategic risk, especially when apportioning, allocating and aligning forces. Additionally, J5 Campaign plans were key in providing the Command an "initial" set of target recommendations for initial phases of the competition/conflict.

Recommendation: (U//~~FOUO~~) Continue support to future exercises.

POC: J53

OVERALL: (U//~~FOUO~~) CFMAP Informed CDR of strategic risk, critical when apportioning/allocating/aligning forces.

**(U) Organization: J5****Topic: J5 CAT Support Cell with J3**

OPR: USCYBERCOM

OCR: J5

SUSTAIN

Observation: (U//~~FOUO~~) Enhanced J3/5 integration was key to supporting OPT & CAT requirements.

Discussion: (U//~~FOUO~~) J5 development of a CAT Support team to provide 24/7 support and integration with J35 OPT and J33 CAT enhanced plans, policy, and partnership support throughout the exercise. It further aided in plans development, including OPORDs, CDR's Estimates, and Branches and Sequel development. Integration of JS4, and J55, and on-call SME support was essential in providing policy and partnership expertise, especially when KLE, FDO, DSCA and Reserve issues became critically important to the OPT and CAT. J531/534/535 JPG preparedness to surge in support of EX OPT with NORTHCOM/Homeland Defense expertise and when Opportunistic Threat Actors came into play was key to ensuring full-spectrum J5 support to the exercise.

Recommendation: (U//~~FOUO~~) Maintain the course with J3/J5 co-location, and expand J5 CAT Support team with resources and personnel from all divisions and JPGs, providing support through all phases of exercise.) Identify exercise representatives from each of the Division (within J5) that participate in the entire exercise development. These representatives will ensure that their Division's equities and training objectives are represented in the exercise design and can aide in developing exercise injects.

POC: J53

OVERALL: (U//~~FOUO~~) J3/J5 integration and colocation was key to optimizing and satisfying all exercise support requirements.



(U) Organization: J5

Topic: Command-wide Assessment

OPR: USCYBERCOM

OCR: J5

SUSTAIN

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Observation: (U//~~FOUO~~) Assessments were conducted for the first time across the command.

Discussion: (U//~~FOUO~~) For the first time since the official designation as a fully unified command in May 2018, USCYBERCOM accomplished assessments during EXERCISE CYBER LIGHTNING 19-2 based upon the scenario. USCYBERCOM established a Command Assessment Program chaired by J8, J5 and J3 to identify, monitor, track, and coordinate all assessments and ensure proper collaboration is achieved across the command. J3 and J5 Directorates have resourced personnel for their assessment branches and accomplished an Operational Assessment and Strategic Assessment during the exercise. USCYBERCOM is in the process of developing an instruction to codify the policies, processes, and procedures to be used by the command to accomplish assessments. Exercising the assessment processes will help establish linkages and lead to improvement of the assessment program.

Recommendation: (U//~~FOUO~~) Sustain and expand assessment activities and collaboration across the command to improve decision support analysis and recommendations to the Commander.

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POC: J55

OVERALL: (U//~~FOUO~~) Increased assessment participation improved the efficiency and effectiveness of USCYBERCOM.



(U) Organization: J5

Topic: USCYBERCOM Support Plan

OPR: USCYBERCOM

OCR: J5

CHALLENGE

SECRET//REL USA, FVEY

Observation: (U//~~FOUO~~) The need for a USCYBERCOM Support Plan to [REDACTED]

[REDACTED]

(b)(5)

Discussion: (S//REL) [REDACTED]

[REDACTED]

Recommendation: (U) USCYBERCOM will [REDACTED]

[REDACTED]

POC: J53

OVERALL: (U//~~FOUO~~) [REDACTED]

SECRET//REL USA, FVEY

(b)(1) Sec. 1.4(a)(g)

(b)(5)



(U) Organization: J5

Topic: Core Planning

OPR: USCYBERCOM

OCR: J5

CHALLENGE

SECRET//REL TO USA, FVEY

Observation: (U//FOUO)

during CL19.

Discussion: (U//FOUO) We are still

We need to

Recommendation: (U//FOUO)

POC: J55

OVERALL: (U//FOUO)

(b)(5)

SECRET//REL TO USA, FVEY



(U) Organization: J5

Topic: Operational integration allied capabilities

OPR: USCYBERCOM

OCR: [REDACTED]

CHALLENGE

SECRET//REL USA, RUEY

Observation: (U//~~FOUO~~) Exercise planning called for [REDACTED]

Discussion: (S//REL) It was unclear if [REDACTED]

[REDACTED] The original exercise planning intent was to [REDACTED]

Recommendation: (U//~~FOUO~~) Identify [REDACTED]

Also, ensure [REDACTED]

POC: J54

OVERALL: (U//~~FOUO~~) [REDACTED]

(b)(1) Sec. 1.4(a)(d)(g)
(b)(5)

(b)(5)

SECRET//REL USA, RUEY



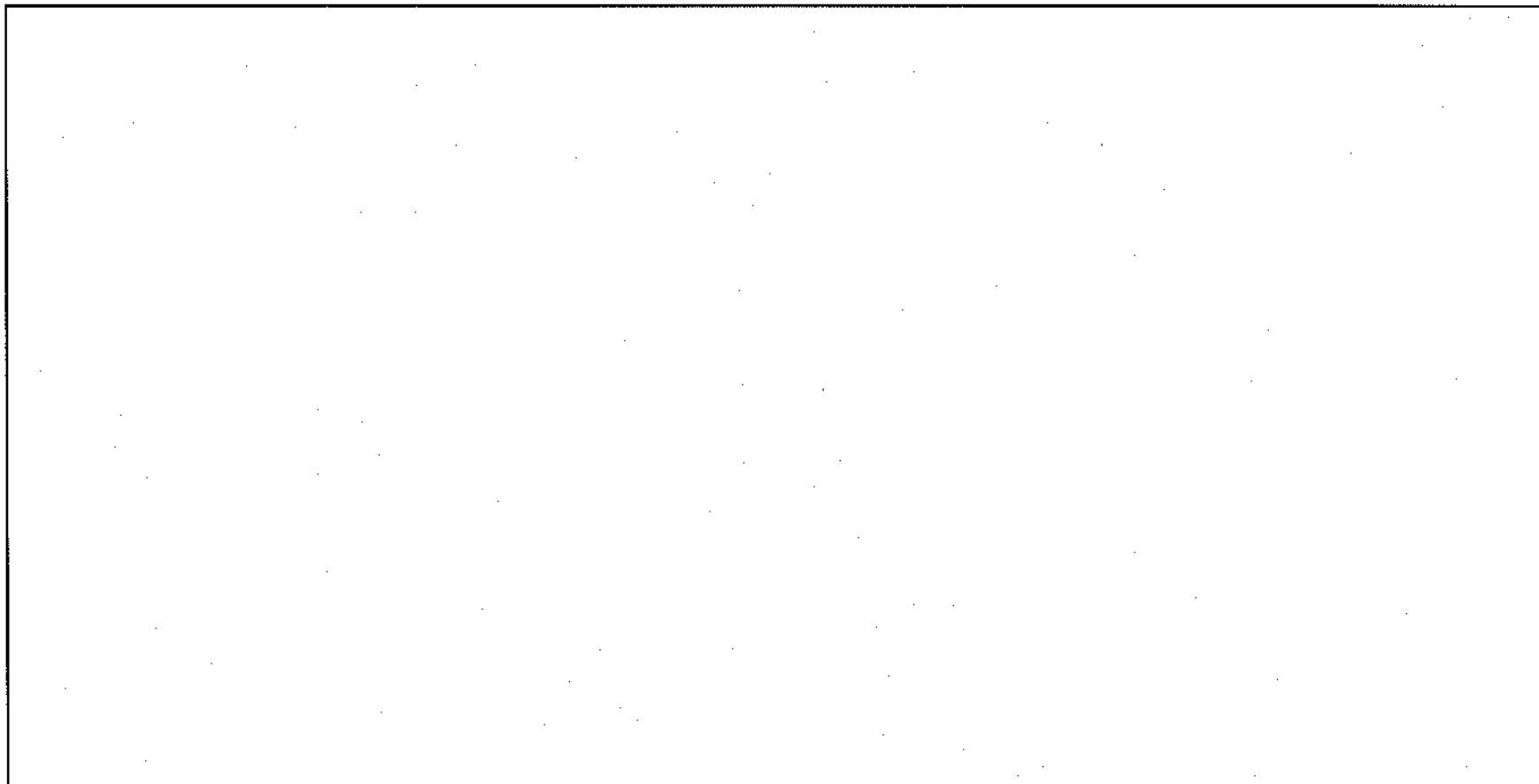
(U) Organization: J5

Topic: Operational Assessment

EXERCISE EXERCISE EXERCISE

SECRET//REL TO USA, FVEY

CL 19 Strategic Campaign Assessment



(b)(1) Sec. 1.4(a)(g)
(b)(3) 10 U.S.C. § 130e
(b)(5)



USCYBERCOM CL 19

J8 AAR Comments



(U) Organization: J8

Topic: J8 Exercise Participation

OPR:

OCR:

(U) Observation Discussion and Background: IMPROVE

(U) J8:

- (U) Did not have an active role as a participant in the exercise.**
- (U) Participated in the Crisis Action Team processes.**
- (U) Senior Leaders supported daily meetings.**
- (U) Did not receive any actionable requests during CL19.**

(U) To exercise and evaluate J8 staff processes, insert a requirement for support that generates a J8 response during the exercise.

(U) Recommendation (Way ahead):

(U) Include J8 activity in the MSEL. Potential tasks that could be exercised:

- (U) Annex preparation in an orders drill.**
- (U) Activate CCIDS in response to an urgent requirement (JUON).**
- (U) Identify financial resources, conduct proper coding (ESP) and reprioritize the existing FY budget to fund ongoing operations.**
- (U) Request a quick turn assessment to inform Senior Leader decisions.**
- (U) Execute an out of cycle CRIB to address emerging operational requirements.**

The above relates to CL19 Training Objective:

(U//~~FOUO~~) 5.7.3 Plan, Program and Budget

The above relates to CL19 Exercise Objective:

(U//~~FOUO~~)
(U//~~FOUO~~)



USCYBERCOM CL 19

J9 AAR Comments



(U) Organization: J9

(b)(3) 10 U.S.C. § 130b

(b)(6)

UNCLASS//FOUO

Topic: J9 Exercise Participation

OPR:

OCR:

(U) Observation Discussion and Background: IMPROVE

(U) Most of J9 operated "business as usual"

(U) Attempt to enact internal exercise scenario incomplete at ENDEX

(U) Only Ops Spt personnel (help desk) participated in early planning conferences

(U) Recommendation (Way ahead):

(U) For future exercises, J9 will:

(U) Develop J9 Exercise Objectives tailored to capability delivery

(U) Maintain dual participation in WGs and Planning Conferences (Real World and Exercise)

(U) Establish J9 battle rhythm specific to escalation/crisis

Impact if not addressed:

(U) Lack of capability support during escalation/crisis

(U) Imbalance of work and priorities without clear processes

The above relates to CL19 Training Objectives:

The above relates to CL19 Exercise Objective:

(U//FOUO)

(U//FOUO)

UNCLASS//FOUO

(b)(3) 10 U.S.C. § 130e



(U) Organization: J9

(b)(3) 10 U.S.C. § 130b
(b)(6)

Topic:

[Redacted]

UNCLASS//FOUO

(b)(5)

OPR: [Redacted]

OCR: [Redacted]

(U) Observation Discussion and Background: IMPROVE

(U)
(U)
(U)

[Redacted]

(U) Recommendation (Way ahead):

(U)
(U)
(U)

[Redacted]

Impact if not addressed:

(U)
(U)
(U)

[Redacted]

The above relates to CL19 Training Objectives:

The above relates to CL19 Exercise Objective:

[Redacted]

(U//FOUO)
(U//FOUO)

[Redacted]

[Redacted]

UNCLASS//FOUO

(b)(3) 10 U.S.C. § 130e



USCYBERCOM CL 19

ARCYBER AAR Comments



(U) Organization: ARCYBER Process

Topic: Request for Support

OPR: USCC/JFHQ-DODIN

OCR: Service Cyber Components

CHALLENGE

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Observation: (U//~~FOUO~~) The Request for Support (RFS) process for Cyber Protection Teams (CPTs) may have [REDACTED]

[REDACTED] the tasking.

Discussion: (U//~~FOUO~~) USCC received multiple RFS's with large requirements from the CCMDs. If USCC [REDACTED]

Recommendation: (U//~~FOUO~~) USCC [REDACTED] create a coordination mechanism to engage [REDACTED]

[REDACTED] the process.

OVERALL: (U//~~FOUO~~) By not [REDACTED]

POC: ARCYBER G37/JFHQ-C

(b)(5)

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Topic: CO-IPE coordination

OCR: JFHQ-C and Supported CCMDs

(b)(1) Sec. 1.4(a)(g)
(b)(5)

[illegible][illegible]

[illegible]

(b)(5)

POC: J3, DDCO & DDFO

**(U) Organization: ARCYBER****Topic: DCF WG execution**

OPR: JFHQ-DODIN

OCR: SCC, JFHQ-Cs, CO-IPES

CHALLENGE**Observation:** (U//~~FOUO~~) DCF WG execution [REDACTED]**Discussion:** (S//REL) Initially there were [REDACTED]
[REDACTED]
[REDACTED]**Recommendation:** (S//REL) Implement [REDACTED]
[REDACTED]

(b)(5)

OVERALL: (U//~~FOUO~~) Failure to implement will [REDACTED]
[REDACTED]

(b)(1) Sec. 1.4(a)(g)

(b)(5)

POC: N&NC CO-IPE

**(U) Organization: ARCYBER****Topic: Command and Control**

OPR: JFHQ-DODIN

OCR: USCYBERCOM, SCC, JFHQ-Cs, CO-IPEs

(b)(5)

CHALLENGEObservation: (U//~~FOUO~~)Discussion: (S//REL)Recommendation: (S//REL) JFHQ-DODIN propose

(b)(1) Sec. 1.4(a)(g)

(b)(5)

OVERALL: (U//~~FOUO~~) Failure to implement will

POC: N&NC CO-IPE



(U) Organization: ARCYBER

Topic:

[Redacted]

OPR: USCYBERCOM

OCR: Service Cyber Components

Challenge

SECRET//REL TO USA, FVEY

Observation: (S//REL)

[Redacted]

[Redacted]

Discussion: (S//REL)

[Redacted]

[Redacted]

(b)(5)

Recommendation: (U) Designate

[Redacted]

[Redacted]

[Redacted]

POC: J3, JFHO-DODIN

(b)(1) Sec. 1.4(a)(g)

(b)(5)



(U) Organization: ARCYBER

Topic: Information sharing

OPR: USCYBERCOM

OCR: JFHQ-C and Supported CCMOs

Challenge

SECRET//REL TO USA, FVEY

Observation: (U)

Discussion: (S//REL TO USA, FVEY)

Recommendation: (U) USCC should have

(b)(1) Sec. 1.4(a)(g)

(b)(5)

(b)(5)

SECRET//REL TO USA, FVEY



(U) Organization: ARCYBER

Topic:

[Redacted]

(b)(5)

OPR: USCYBERCOM

OCR: SSC, JFHQ-Cs, JFHQ-DODIN

SUSTAIN

SECRET//REL TO USA, EYEY

Observation: (U//~~FOUO~~) Use of

[Redacted]

Discussion: (S//REL) Use of

[Redacted]

[Redacted]

[Redacted]

Recommendation: (S//REL) Continue to

[Redacted]

[Redacted]

OVERALL: (U//~~FOUO~~) Failure to execute will

[Redacted]

(b)(1) Sec. 1.4(a)(g)

(b)(5)

POC: N&NC CO-IPE

SECRET//REL TO USA, EYEY



USCYBERCOM CL 19

FLTCYBER AAR Comments



SECRET//REL TO USA, FVEY

(U) Organization: FLTCYBER Topic: Contingency Plans

(b)(1) Sec. 1.4(a)(g)
(b)(5)

OPR: USCC J5

OCR:

Observation Discussion and Background: (IMPROVE)

USCYBERCOM

Other CCMDs

CL 19-2 re-emphasized the fact that

Recommendation (Way ahead):

Recommend that USCYBERCOM dedicate resources and make it a priority to

These

plans should look at how USCYBERCOM will

(b)(5)

Impact if not addressed:

The above relates to CL19 Training Objective:

The above relates to CL19 Exercise Objective:

(U)

(U//FOUO)

SECRET//REL TO USA, FVEY



(U) Organization: FLTCYBER Topic: FOPS Coordination

OPR: USCC J3

OCR:

Observation Discussion and Background: (Sustain)

The USCYBERCOM OPT that filled the FOPS roll for the exercise did an excellent job of coordinating between the multiple commands and stake holders trying to anticipate what will be needed during follow on stages of the exercise. This is important for USCC to be able to get ahead of potential issues, and not be simply reacting to the situation.

Recommendation (Way ahead):

Recommend USCC continue to train to this model of elevating the aperture to the strategic level.

Impact if not addressed:

There is a risk that USCC Staff will

the USCC Staff.

(b)(5)

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//~~FOUO~~)



USCYBERCOM

JFHQ-DoDIN AAR Comments



(U) Organization: JFHQ-DODIN Topic: Joint Command and Control/Unity of Command

OPR: USCC

OCR: JFHQ-DODIN; JFHQ-C; CNMF

(U//FOUO) Observation Discussion and Background: IMPROVE.

(U//FOUO) Recommendation (Way ahead):

(U//FOUO) Impact if not addressed:

The above relates to CL19 Training Objective:

(U//FOUO)

The above relates to CL19 Exercise Objective:

(U) None



(U) Organization: JFHQ-DODIN Topic: Synchronization of Forces

OPR: USCC

OCR: JFHQ-DODIN; JFHQ-C; CNMF

(U//FOUO) Observation Discussion and Background: IMPROVE. During the exercise there were numerous instances where [REDACTED]

(U//FOUO) Recommendation (Way ahead): USCC should lead the effort to [REDACTED]

(U//FOUO) Impact if not addressed: The cyber mission force will [REDACTED]

(b)(5)

The above relates to CL19 Training Objective:

(U//FOUO)

The above relates to CL19 Exercise Objective:

(U) None

(U)

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(b)(3) 10 U.S.C. § 130e



(U) Organization: JFHQ-DODIN
Topic: GIE Synchronization and Prioritization

OPR: USCC

OCR: JFHQ-DODIN; JFHQ-C; CNMF

(U//FOUO) Observation Discussion and Background: IMPROVE. [REDACTED]

[REDACTED]

(U//FOUO) Recommendation (Way ahead): [REDACTED]

[REDACTED]

(U//FOUO) Impact if not addressed: [REDACTED]

[REDACTED]

(b)(5)

The above relates to CL19 Training Objective:

(U//FOUO) [REDACTED]

The above relates to CL19 Exercise Objective:

(U) None



USCYBERCOM CL 19

AF/24 AAR Comments



(U) Organization:

Topic:

Observation Discussion and Background: (Is this a SUSTAIN or IMPROVE)

IMPROVE:

During the exercise: Austere Challenge, 24 AF/A1

(b)(5)

OPR:

OCR:

(b)(3) 10 U.S.C. § 130b
(b)(6)

Recommendation (Way ahead):

Incorporate real world scenarios by consulting w/ NAF or MAJCOM A1 for capabilities/responsibilities that are within the realm of 24 AF/A1.

Impact if not addressed:

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



USCYBERCOM CL 19

Special Staff: SJA AAR Comments



(U) Organization: SJA

Topic: [REDACTED]

OPR: SJA

OCR: J2, J3, J5, J7, LL

Observation Discussion and Background: (IMPROVE)(U//FOUO) [REDACTED]
[REDACTED]
[REDACTED]**Recommendation (Way ahead):**(U//FOUO) DOD operational and legal communities form a working group to determine [REDACTED]
[REDACTED]**Impact if not addressed:**(U//FOUO) Application of legal concepts [REDACTED]
[REDACTED]

(b)(5)

The above relates to CL19 Training Objective:

(U)
(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)

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(b)(3) 10 U.S.C. § 130e



(U) Organization:

SJA

Topic:

[Redacted]

SECRET//REL TO USA, FVEY

(b)(5)

OPR: J3

OCR: SJA

Observation Discussion and Background: (IMPROVE)

(S//REL)

[Redacted]

[Redacted]

[Redacted]

(b)(1) Sec. 1.4(a)(g)

Recommendation (Way ahead):

(b)(5)

1. (U//FOUO) Ensure all equity holders have an opportunity to

[Redacted]

[Redacted]

2. (U//FOUO) Evaluate

[Redacted]

Impact if not addressed:

(U//FOUO) Potential

[Redacted]

The above relates to CL19 Training Objective:

(U)
(U)

[Redacted]

The above relates to CL19 Exercise Objective:

(U//FOUO)

[Redacted]

SECRET//REL TO USA, FVEY

(b)(3) 10 U.S.C. § 130e



(U) Organization: SJA

Topic: Supporting/Supported Relationships

OPR: J3

OCR: J5

(b)(1) Sec. 1.4(a)(g)
(b)(5)Observation Discussion and Background: (IMPROVE)

(S//REL)

Recommendation (Way ahead):

(U//FOUO) Clarify the circumstances under which

Impact if not addressed:

(S//REL)

(b)(5)

The above relates to CL19 Training Objective:

(U)
(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)
(U//FOUO)



(U) Organization: SJA Topic: Targeting Guidance & ROE

OPR: J3

OCR: SJA

Observation Discussion and Background: (IMPROVE)

(S//REL) The role of Targeting Guidance (TG) was

[Redacted]

(b)(1) Sec. 1.4(a)(g)

(b)(5)

Recommendation (Way ahead):

(U) Provide targeting guidance in SUPP ROE or EXORD. Ensure consistency in all documents each time one or more are updated.

Impact if not addressed:

(U//FOUO) Potential

[Redacted]

(b)(5)

The above relates to CL19 Training Objective:

(U)
(U)

[Redacted]

The above relates to CL19 Exercise Objective:

(U//FOUO)

[Redacted]



(U) Organization: SJA Topic: CEE Framework

OPR: J3

OCR: J5, SJA

Observation Discussion and Background: (IMPROVE)

(S//REL) CL19 CEE guidance used

Recommendation (Way ahead):

(S//REL) Revisit CEE frameworks regularly to determine

Impact if not addressed:

(S//REL) CEE guidance may

(b)(1) Sec. 1.4(a)(g)

(b)(5)

The above relates to CL19 Training Objective:

(U)
(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



(U) Organization: SJA Topic: Cyber Targeting Terms

OPR: J3

OCR: J5, SJA

Observation Discussion and Background: (IMPROVE)

(S//REL) In targeting, [REDACTED]

(b)(1) Sec. 1.4(a)(g)

(b)(5)

Recommendation (Way ahead):

1. (U//FOUO) Ensure operators address [REDACTED]

2. (U//FOUO) Develop [REDACTED]

(b)(5)

Impact if not addressed:

(S//REL) [REDACTED]

The above relates to CL19 Training Objective:

The above relates to CL19 Exercise Objective:

(U)
(U)

(U//FOUO)

(b)(3) 10 U.S.C. § 130e



(U) Organization: SJA Topic: Cyber Target Characterization

OPR: J3

OCR: J5, SJA

Observation Discussion and Background: (IMPROVE)

(S//REL)

(b)(1) Sec. 1.4(a)(g)
(b)(5)

Recommendation (Way ahead):

(U//FOUO) Evaluate

(b)(5)

Impact if not addressed:

(U//FOUO)

The above relates to CL19 Training Objective:

(U)
(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



(U) Organization: SJA Topic: Operational Impact of Contracts

OPR: JFHQ-DODIN

OCR: J3, J5, SJA

Observation Discussion and Background: (IMPROVE)

(U//~~FOUO~~) Commercial solutions added bandwidth to address lost DOD capacity. [REDACTED]

Recommendation (Way ahead):

(U) Ensure operational implications of commercial substitutes for DOD capabilities are understood by operators and accounted for in contracts.

Impact if not addressed:

(U//~~FOUO~~) [REDACTED]

(b)(5)

The above relates to CL19 Training Objective:

(U)
(U)

The above relates to CL19 Exercise Objective:

(U//~~FOUO~~)
(U//~~FOUO~~)

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(b)(3) 10 U.S.C. § 130e



(U) Organization: SJA Topic:

[Redacted]

(b)(5)

OPR: PAO

OCR: All J-Dirs and Sections

Observation Discussion and Background: (IMPROVE)

(S//REL)

[Redacted]

[Redacted]

[Redacted]

(b)(1) Sec. 1.4(a)
(b)(5)

Recommendation (Way ahead):

(U//FOUO)

[Redacted]

Impact if not addressed:

(U//FOUO)

[Redacted]

The above relates to CL19 Training Objective:

(U)
(U)
(U)

[Redacted]

The above relates to CL19 Exercise Objective:

(U//FOUO)

[Redacted]

[Redacted]

(b)(3) 10 U.S.C. § 130e



USCYBERCOM CL 19

Special Staff: PAO AAR Comments



(U) Organization: PAO

Topic:

Observation Discussion and Background: (SUSTAIN)

(U)

Recommendation (Way ahead):

OPR: J7

OCR: PAO, J2, JOC, J39, J5

(U)

Impact if not addressed: (U)

(b)(5)

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



(U) Organization: PAO

Topic: CCMD Collaboration

Observation Discussion and Background: (SUSTAIN)

(U) PAO conducted a daily synchronization call with other CCMD PA offices to discuss operations and PA messaging efforts that impacted each other's AOR. This was an improvement from previous exercises and operations, which generally conducted ad-hoc synchronization.

Recommendation (Way ahead):

OPR: PAO

OCR: KM

(U) Ensure a standing PA sync is planned and implemented as soon as possible during exercise warm start (or earlier). If possible, include all interagency exercise players as well, such as EX DHS or EX White House as available.

Impact if not addressed: (U) Critical information or nuance of the operational, media and information environment could be lost for PA planning and RTQ if we rely on one-on-one synchronization instead of group collaboration.

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



(U) Organization: PAO

Topic:

Observation Discussion and Background: (SUSTAIN)

(U)

Recommendation (Way ahead):

OPR: J39

OCR: PAO, CAG, LST, JS

(U//FOUO)

Impact if not addressed: (U)

(b)(5)

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



(U) Organization: PAO

Topic: White Cell/Augmentation

Observation Discussion and Background: (IMPROVE)

(U) Lack of specific PAO and PAO-trained white cell support.

Recommendation (Way ahead):

OPR: PAO

OCR: J1, GRD

(U) PA must have exercise augmentees or integrees to conduct white cell functions. Recommend [redacted]
[redacted] where white cell and roleplayer support can
support the exercise.

Impact if not addressed: The commander's PA capabilities will be degraded in the following areas [redacted]
[redacted]

(b)(5)

The above relates to CL19 Training Objective:

(U) IMPROVE

The above relates to CL19 Exercise Objective:

(U//FOUO)



(U) Organization: PAO

Topic: LL Participation

Observation Discussion and Background: (IMPROVE)

(U) Lack of congressional/LL involvement degrades exercise realism and presents challenges associated with legal notification requirements.

Recommendation (Way ahead):

OPR: OPT

OCR: LL

(U) Ensure an LL planner or AO is available during the planning and academics to ensure all exercise participants understand what necessitates a congressional notification. Augment white cell with LL participant.

Impact if not addressed: (U) USCYBEROCM HQ, service components, JFHQ-C's, and subordinate units do not exercise or understand legal mandates from oversight authorities.

The above relates to CL19 Training Objective:

(U)

The above relates to CL19 Exercise Objective:

(U//FOUO)



USCYBERCOM

Cyber Lightning Miscellaneous AAR Comments



(U) Organization:

Topic:

Observation Discussion and Background: IMPROVE

CL 19-2 lacked

[Redacted]

• The exercise did not anticipate

[Redacted]

[Redacted]

OPR: J7

OCR: CAG, J3/3/5, CNMF

Recommendation (Way ahead):

[Redacted]

Impact if not addressed:

[Redacted]

(b)(5)

The above relates to CL19 Training Objective:

The above relates to CL19 Exercise Objective:

(U)

(U//FOUO)

USCYBERCOM

CYBER LIGHTNING 19



Executive Summary Report

9 April 2019

JOINT STAFF, J7, Deployable Training Division

[Redacted]
Suffolk, VA 23435-2697

Joint Staff
(b)(6)

Classified By: [Redacted]
Derived From: Multiple Sources
Declassify: 10 April 2044

FOR: COMMANDER, USCYBERCOM, Fort Meade, MD 20755

Joint Staff
(b)(6)

FROM: Joint Staff J7 Deployable Training Team (DTT), [REDACTED] Suffolk, VA 23435

SUBJECT: Executive Summary for USCYBERCOM Exercise CYBER LIGHTNING 19 (CL19)

Purpose: This Executive Summary for CL19 is provided in addition to the Facilitated After Action Review (FAAR) and individual Functional Area out-briefs to your J-Directors. This document includes items the DTT identified as the key, command-level observations, insights, and recommendations. As enclosures to this document, the DTT is providing a consolidation of the Functional Reports provided by the DTT Observer Trainers (OT) to their USCYBERCOM staff counterparts. Also enclosed is a Consolidated Training Objective Report covering specific J-Directorate exercise training objectives for CL19.

Construct: CYBER LIGHTNING 19 was designed to provide USCYBERCOM the opportunity to train its staff, the CNMF, JFHQ-Cyber (Air Force), multiple CO-IPEs, JFHQ-DODIN, and USCYBERCOM's Service components in the planning and execution of globally synchronized cyberspace operations. This exercise enabled the command to develop, refine, apply, and rehearse staff processes and procedures in the context of your Functional Campaign Plan - Cyberspace Operations (FCP-CO) and Supporting Campaign Plans (SCP). Our collection effort was focused by your Commander's intent and guidance, exercise and training objectives, and input we received from the Command's key leadership during our in-briefs to your staff.

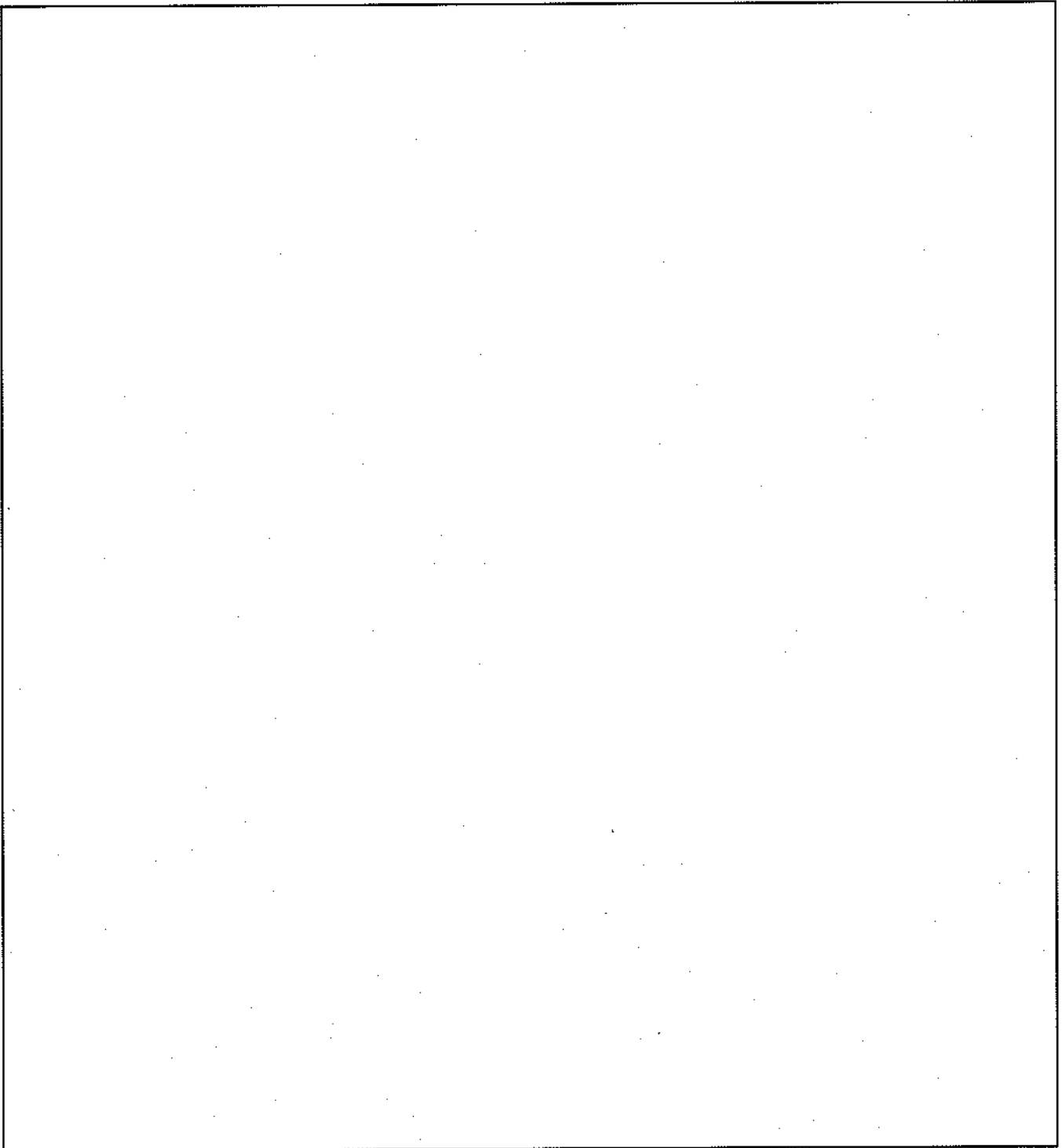
Table of Contents

[REDACTED]

1. Overall: CYBER LIGHTNING 19 enabled USCYBERCOM to develop, refine, apply, and rehearse staff processes and procedures in the context of your Functional Campaign Plan - Cyberspace Operations (FCP-CO) and Supporting Campaign Plans (SCP) against a transregional, all-domain, multi-functional adversary. Our team observed a high level of energy, professionalism, and dedication to warfighting. The overall performance of USCYBERCOM has improved dramatically in the past 12 months. Comments that follow represent what we feel the command should consider to achieve and sustain operations at an optimized level.

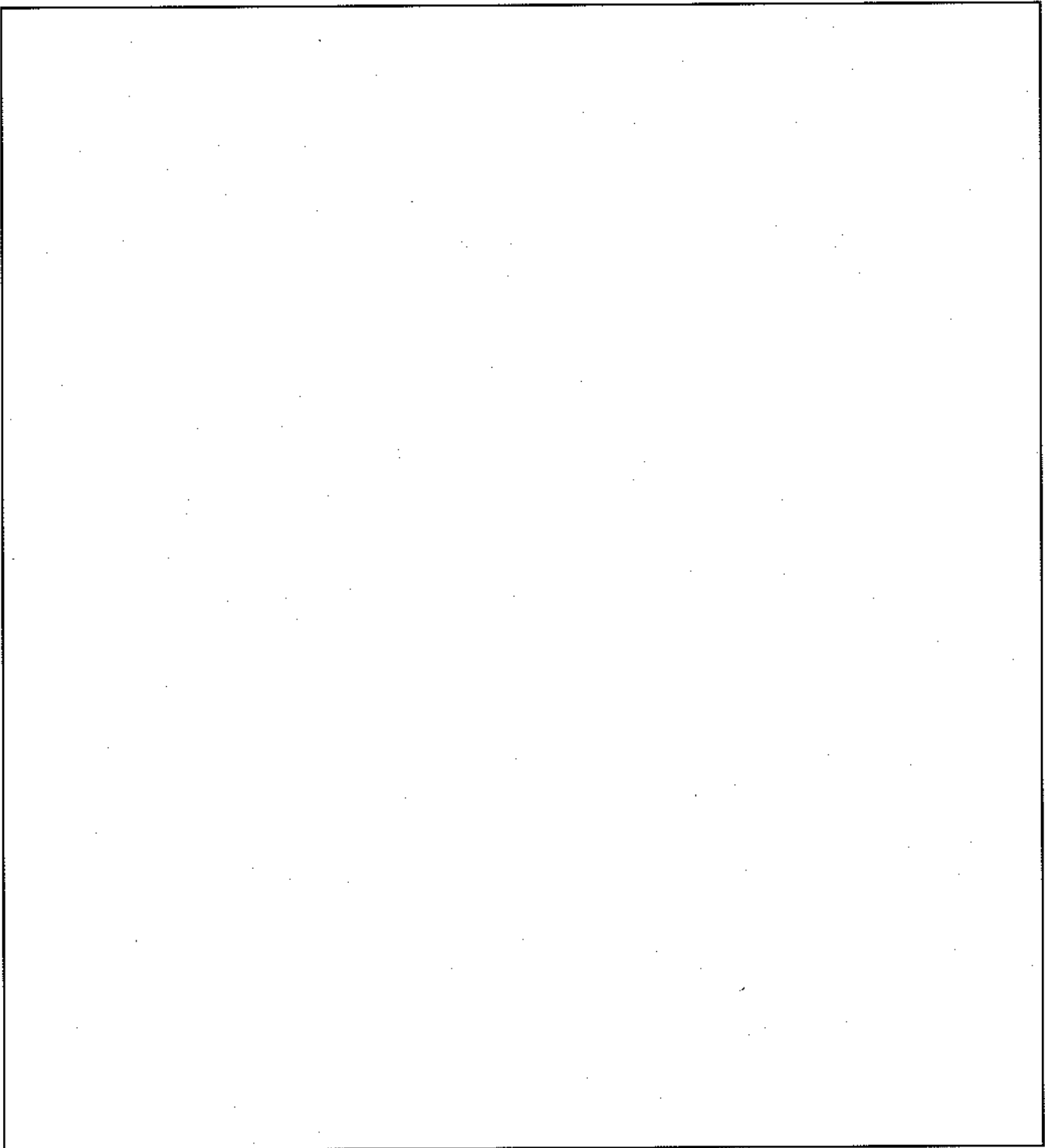
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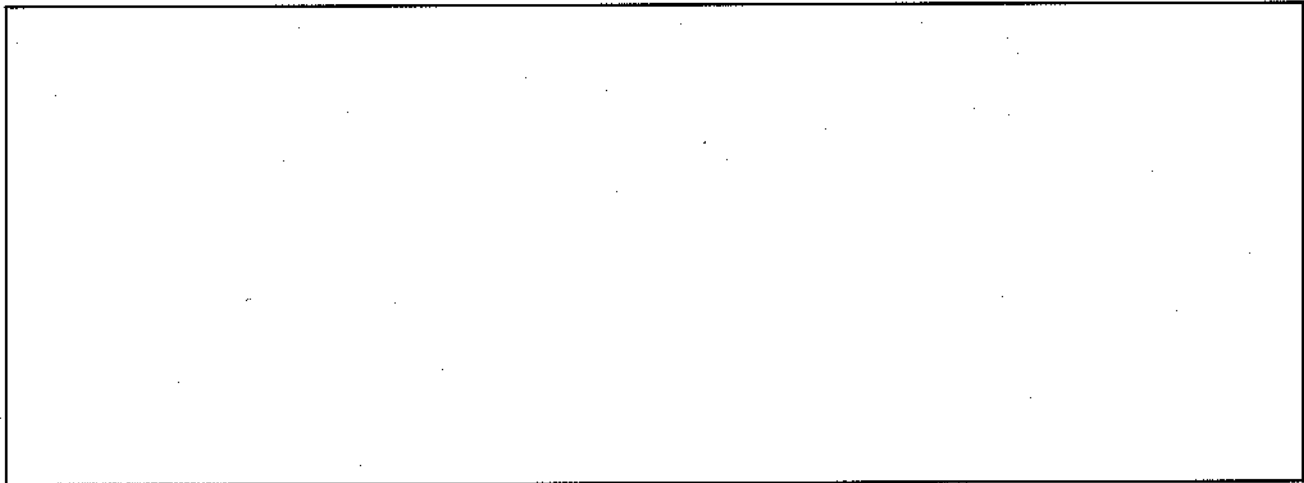
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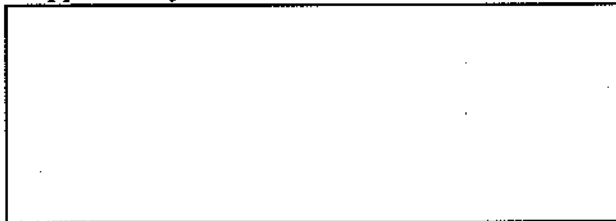
Encl

1 – Consolidated Functional Report

2 – Consolidated Training Objective Report (SECRET//REL TO USA, FVEY)

Joint Staff
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Approved by:



Joint Staff
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USCYBERCOM

CYBER LIGHTNING 19



Consolidated Functional Report

9 April 2019

JOINT STAFF, J7, Deployable Training Division

[Redacted]
Suffolk, VA 23435-2697

Joint Staff
(b)(6)

Classified By: [Redacted]
Derived From: Multiple Sources
Declassify: 10 April 2044

FOR: COMMANDER, USCYBERCOM, Fort Meade, MD 20755

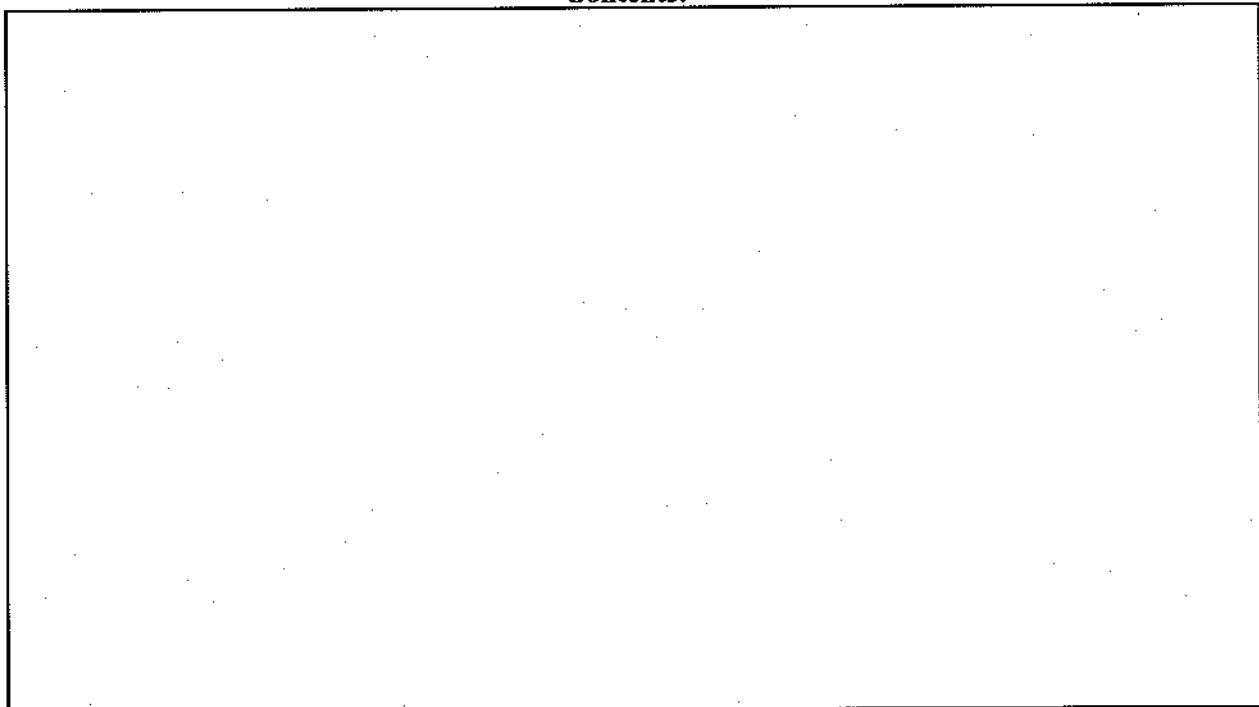
FROM: Joint Staff J7 Deployable Training Team (DTT), [REDACTED] Suffolk, VA
23435

Joint Staff
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SUBJECT: Consolidated Functional Report for USCYBERCOM Exercise CYBER
LIGHTNING 19 (CL19)

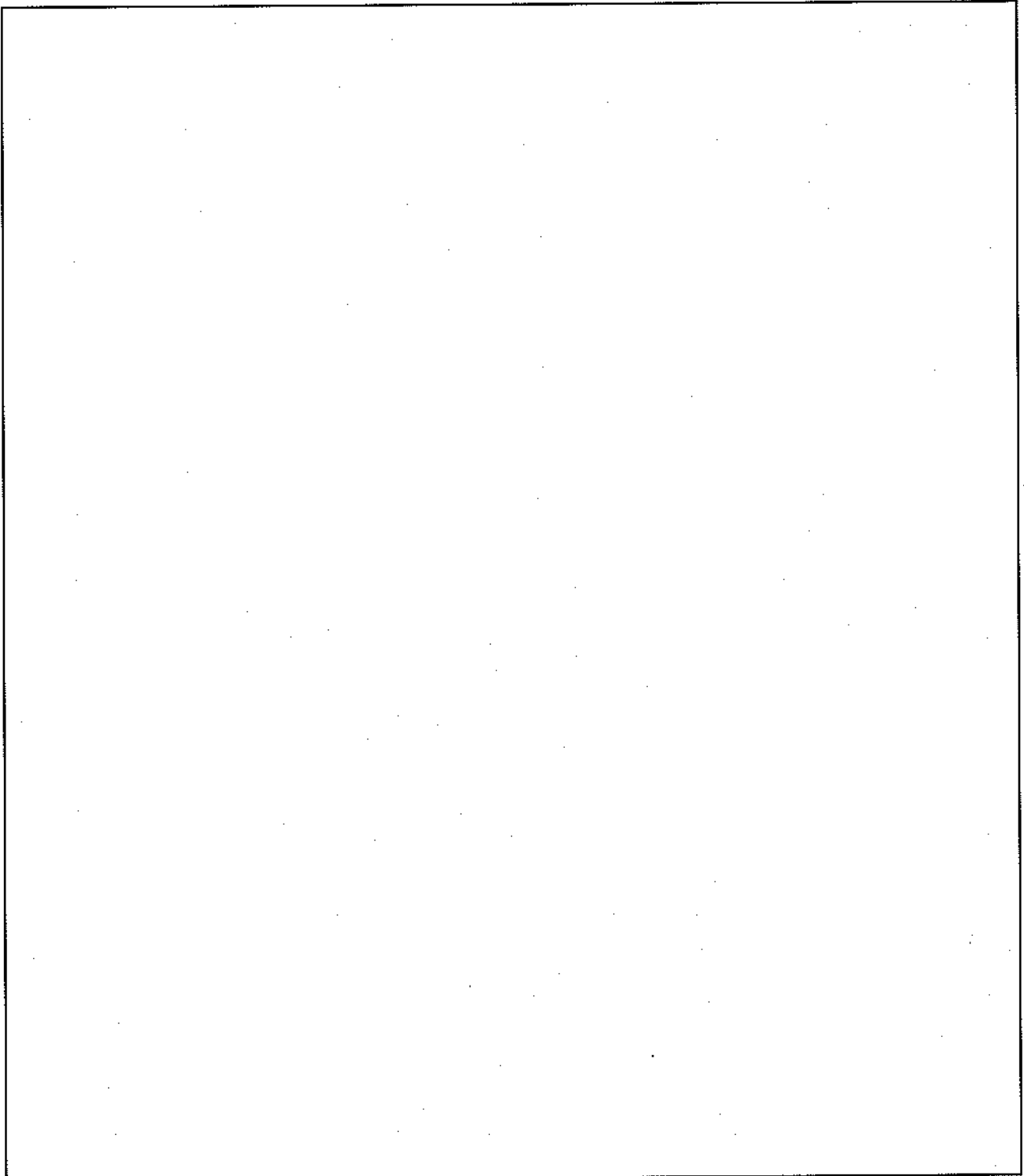
Purpose: This Consolidated Functional Report for CL19 is provided in addition to the Facilitated After Action Review (FAAR), Executive Summary, and individual Functional Area out-briefs to your J-Directors. This document includes items the DTT Observer/Trainers (OT) identified as important J-Directorate level observations, insights, and recommendations. OTs observed the USCYBERCOM staff work in seven Joint Functional Areas during CL19. These Functional Areas were coordinated with the USCYBERCOM staff prior to the exercise, were outlined in our Collection Management Plan, and included: Operations and Information Sharing, Authorities, Interorganizational Cooperation, Intelligence, Planning, Assessments, and Fires and Targeting.

Contents:

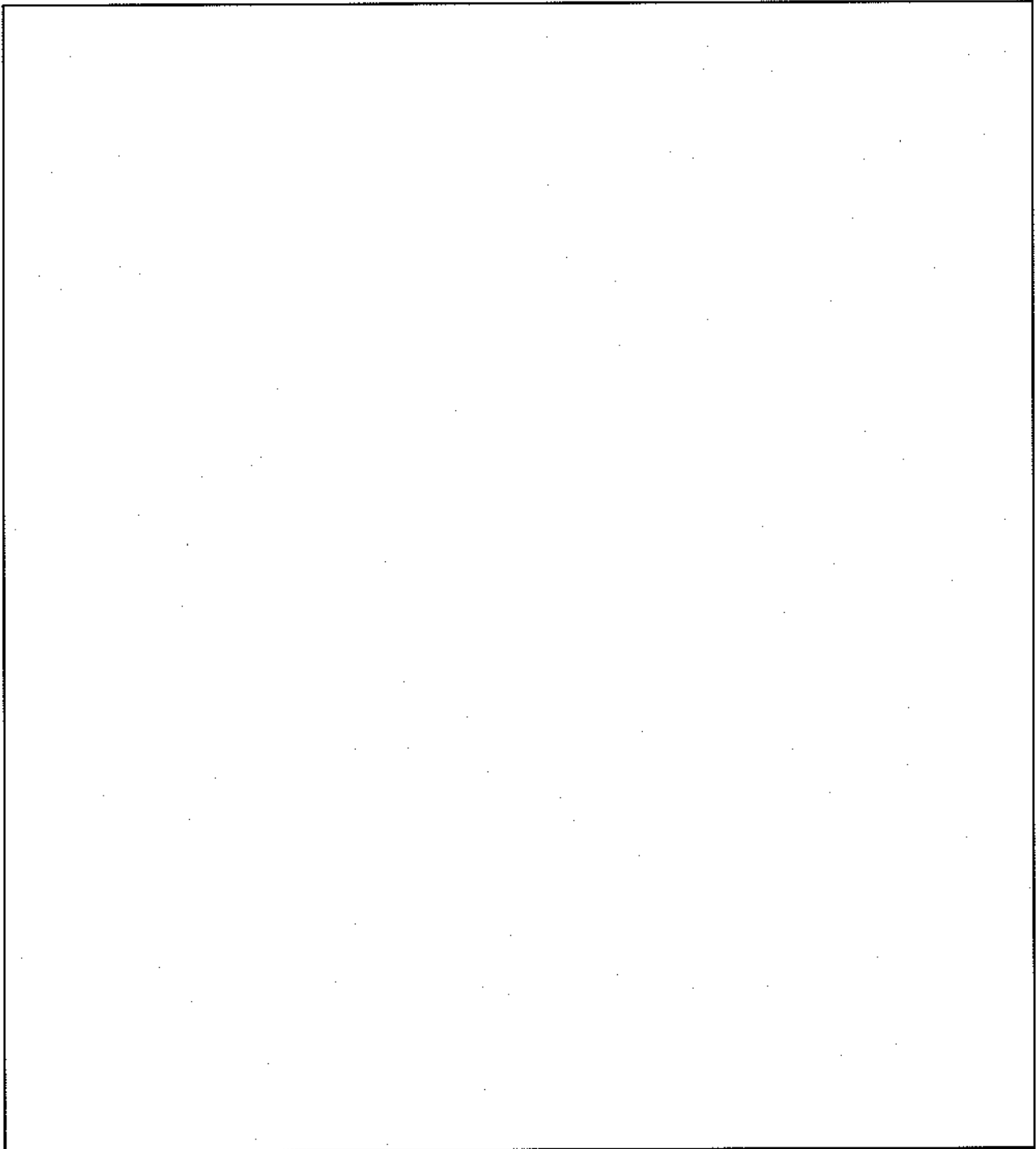


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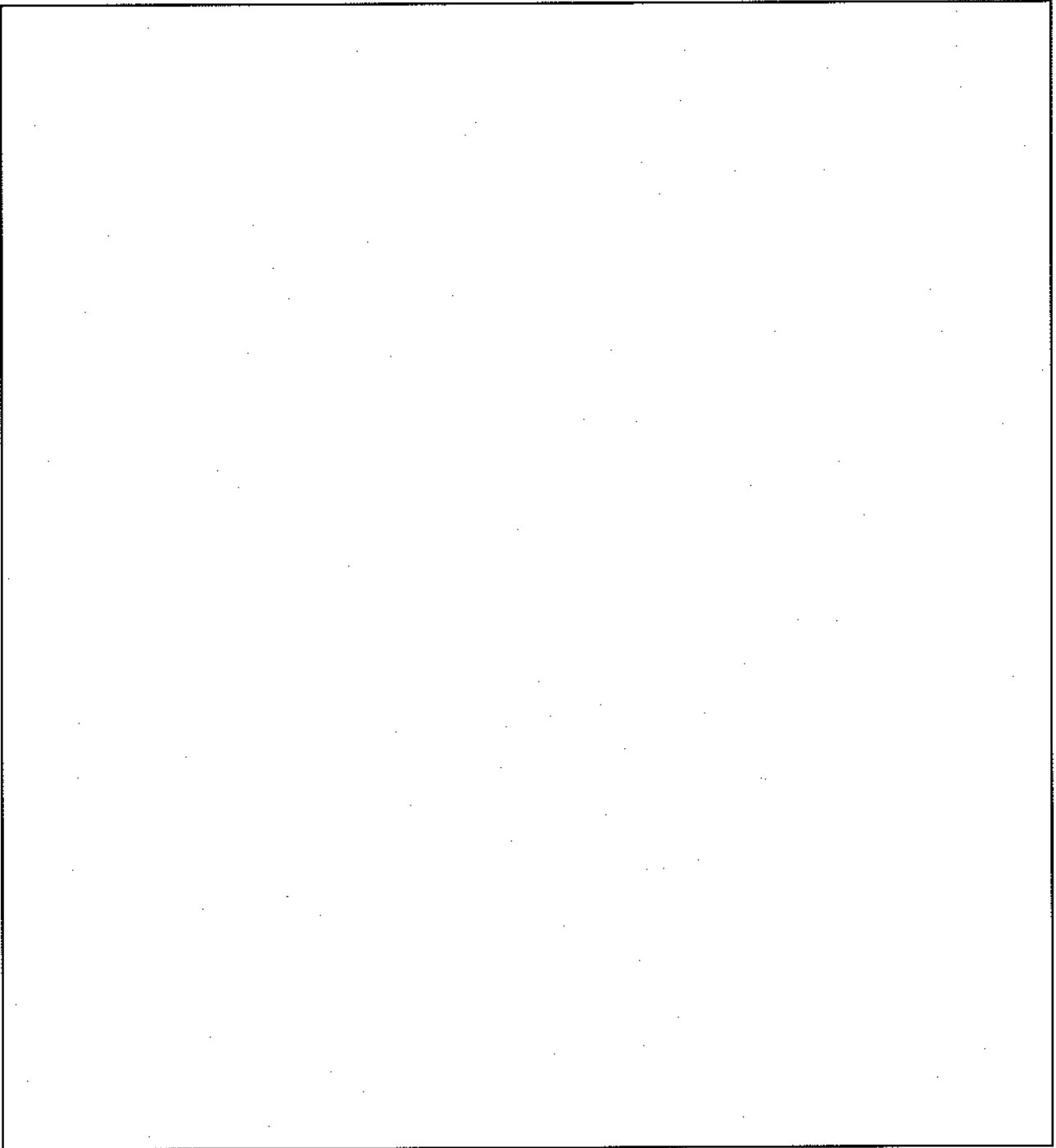


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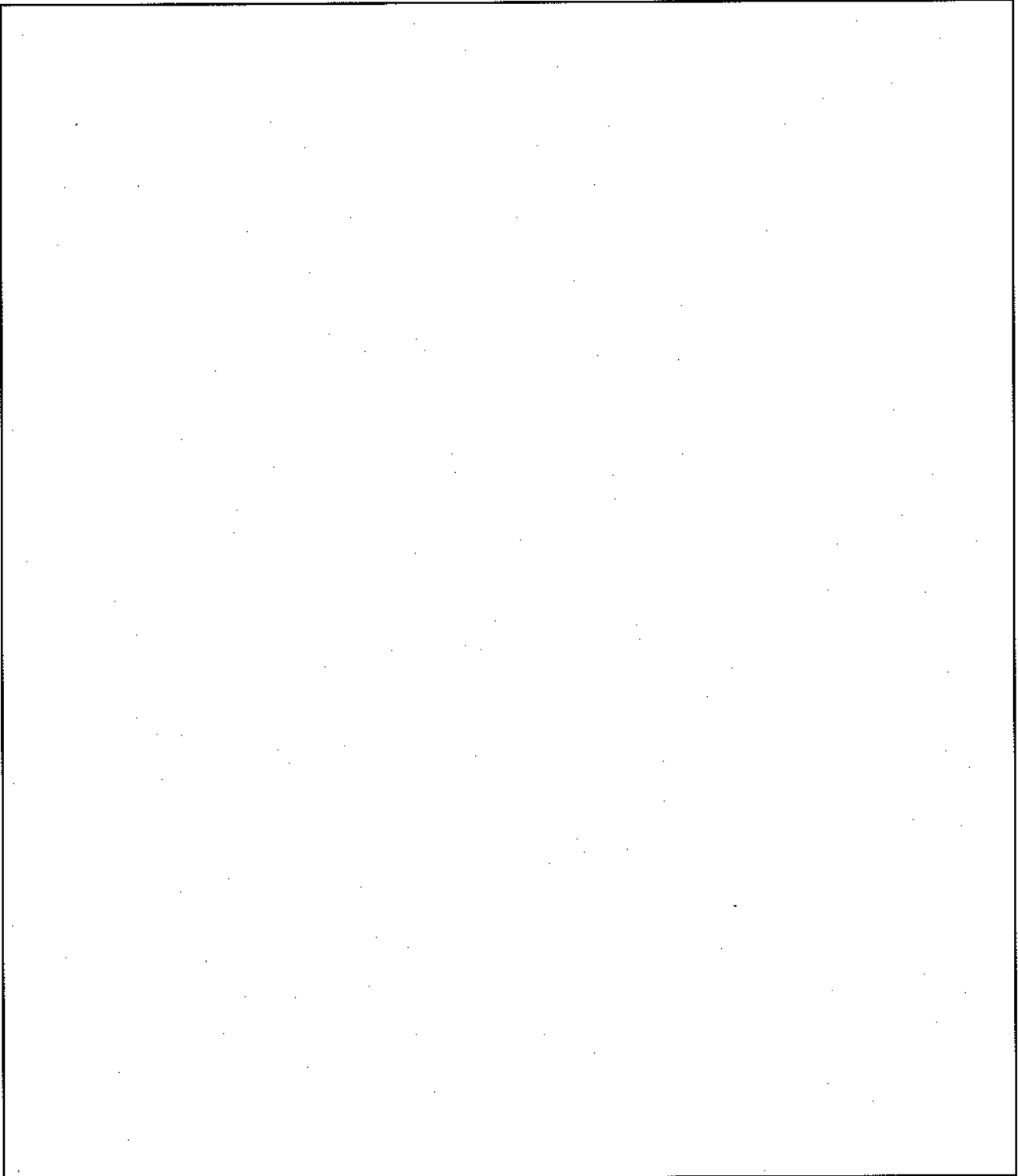
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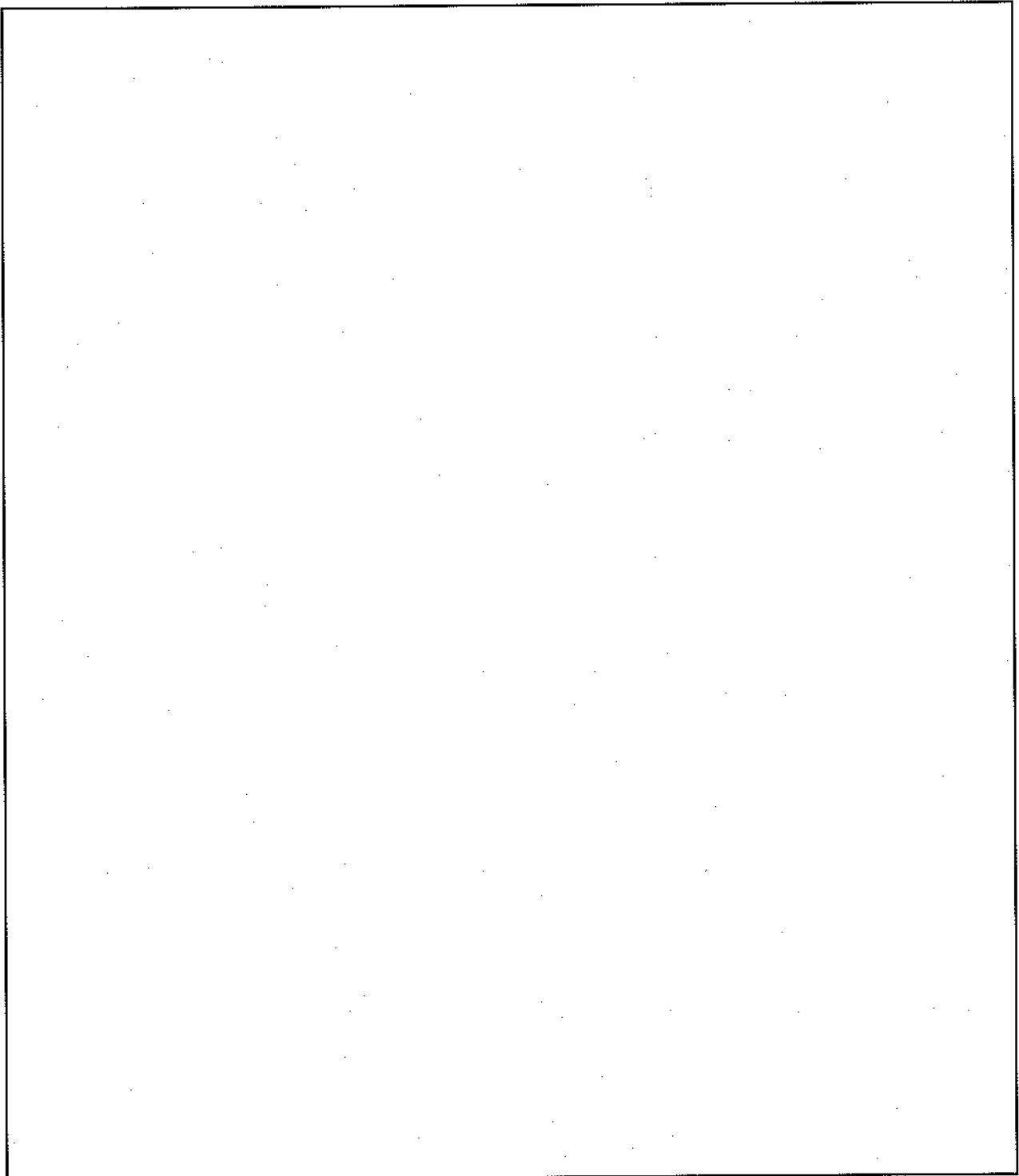
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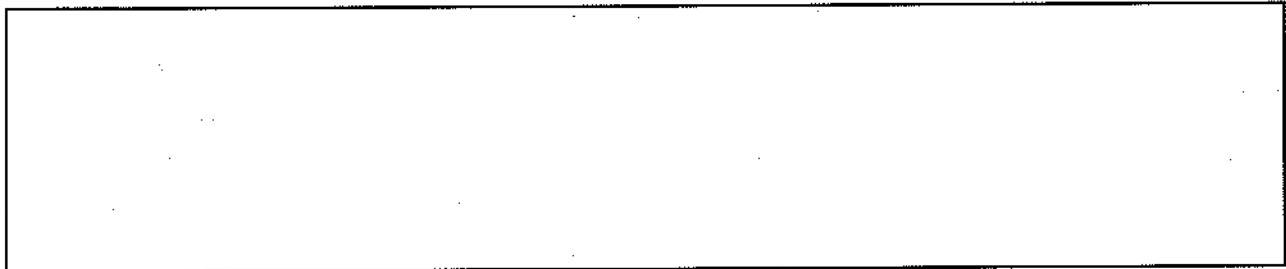
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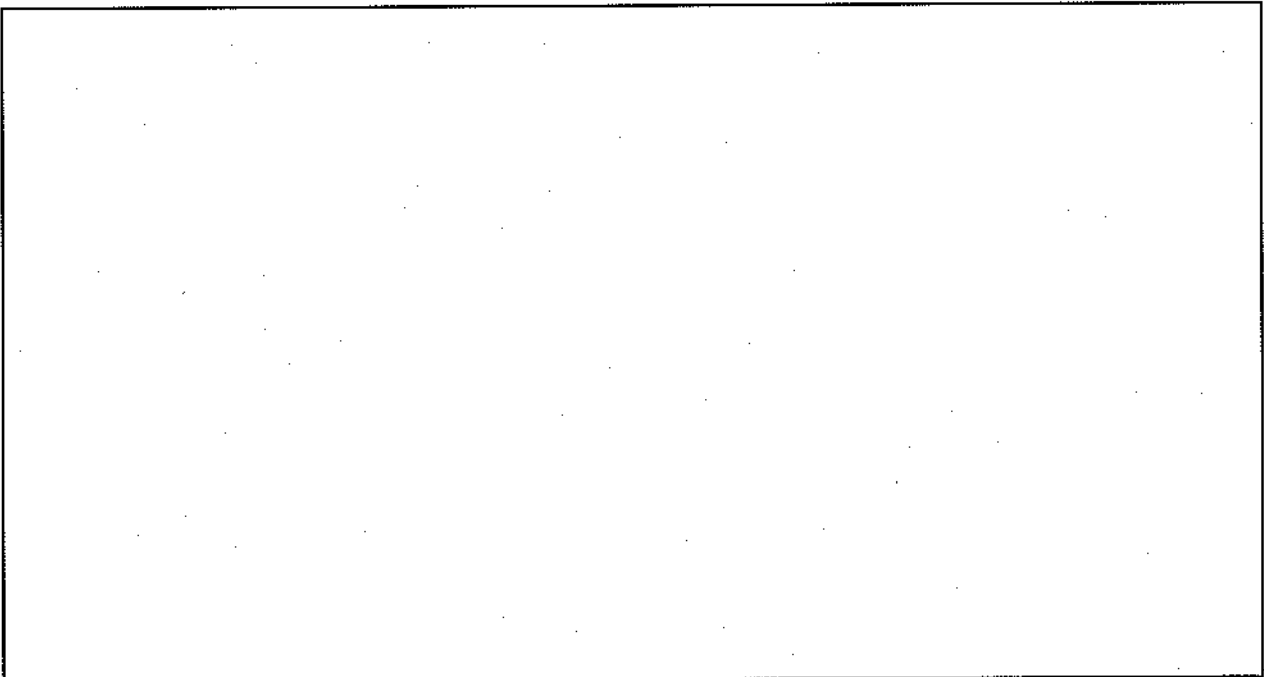
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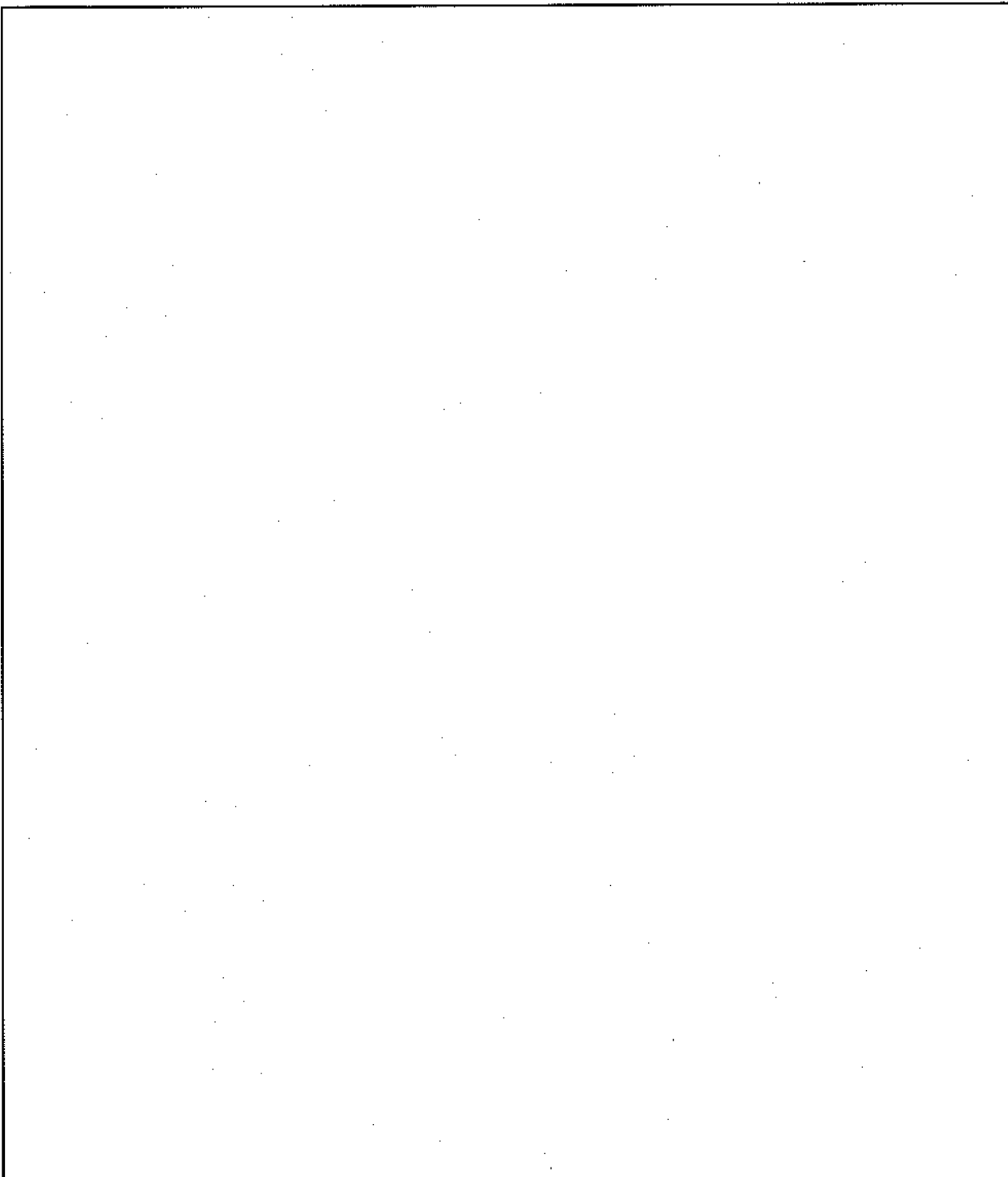
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- Joint Publication 3-0, *Joint Operations*
- Joint Staff J7 Insights and Best Practices Focus Paper: *Joint Operations*
- Joint Staff J7 Insights and Best Practices Focus Paper: *Knowledge and Information Management*
- Joint Staff J7 Insights and Best Practices Focus Paper: *Joint Headquarters Organization, Staff Integration, and Battle Rhythm*
- Joint Staff J7 Insights and Best Practices Focus Paper: *Chief of Staff (COS) Roles and Functions in a Joint Headquarters*
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- ECI 3104.01 HQ USEUCOM, *Battle Rhythm Management Policy*
- CCR 10-6 USCENCOM, *B2C2WGs and Command Decision Making Process*
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- 3200.13C USAFRICOM, *Crisis Joint Standing Operating Procedures*

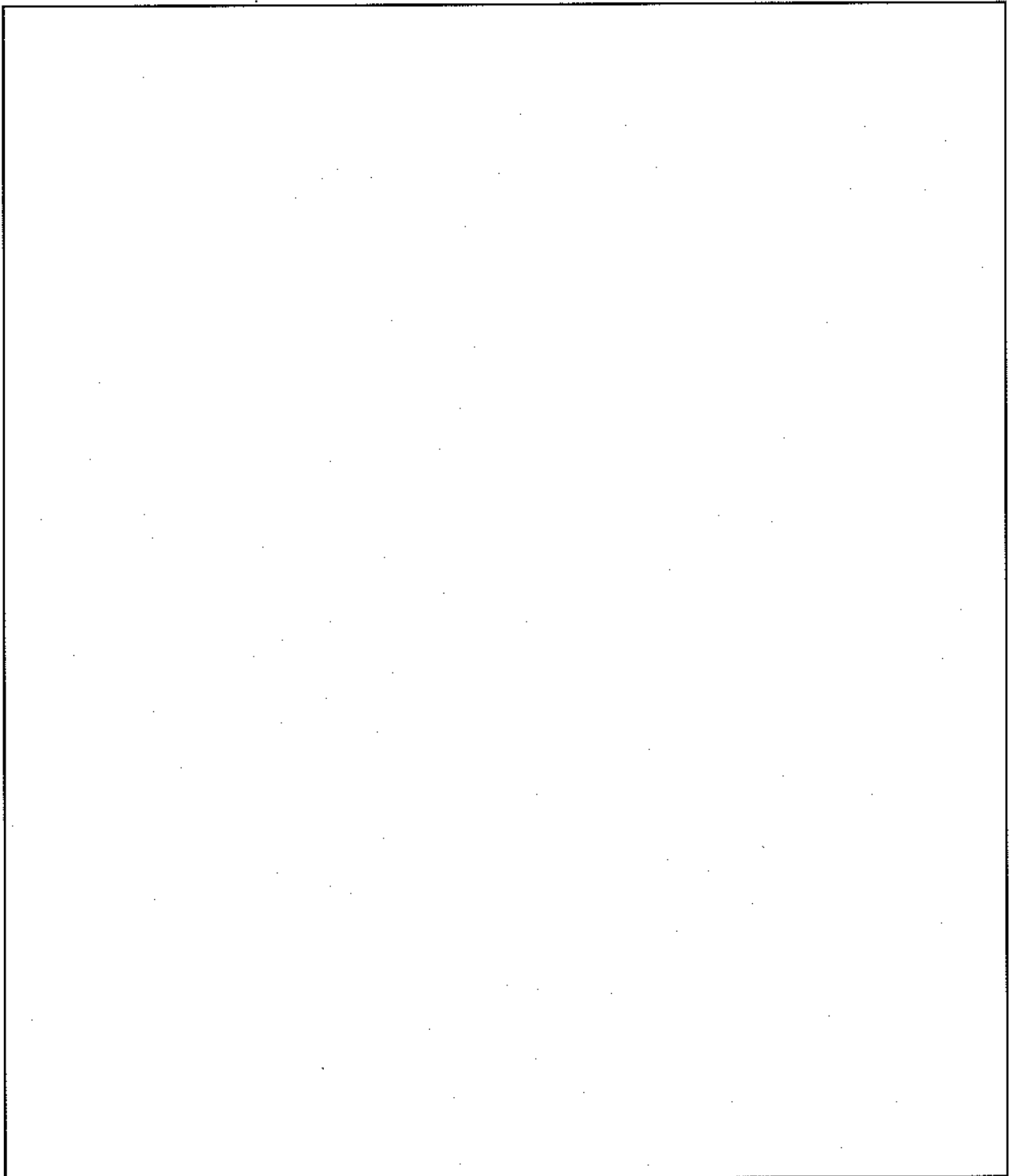


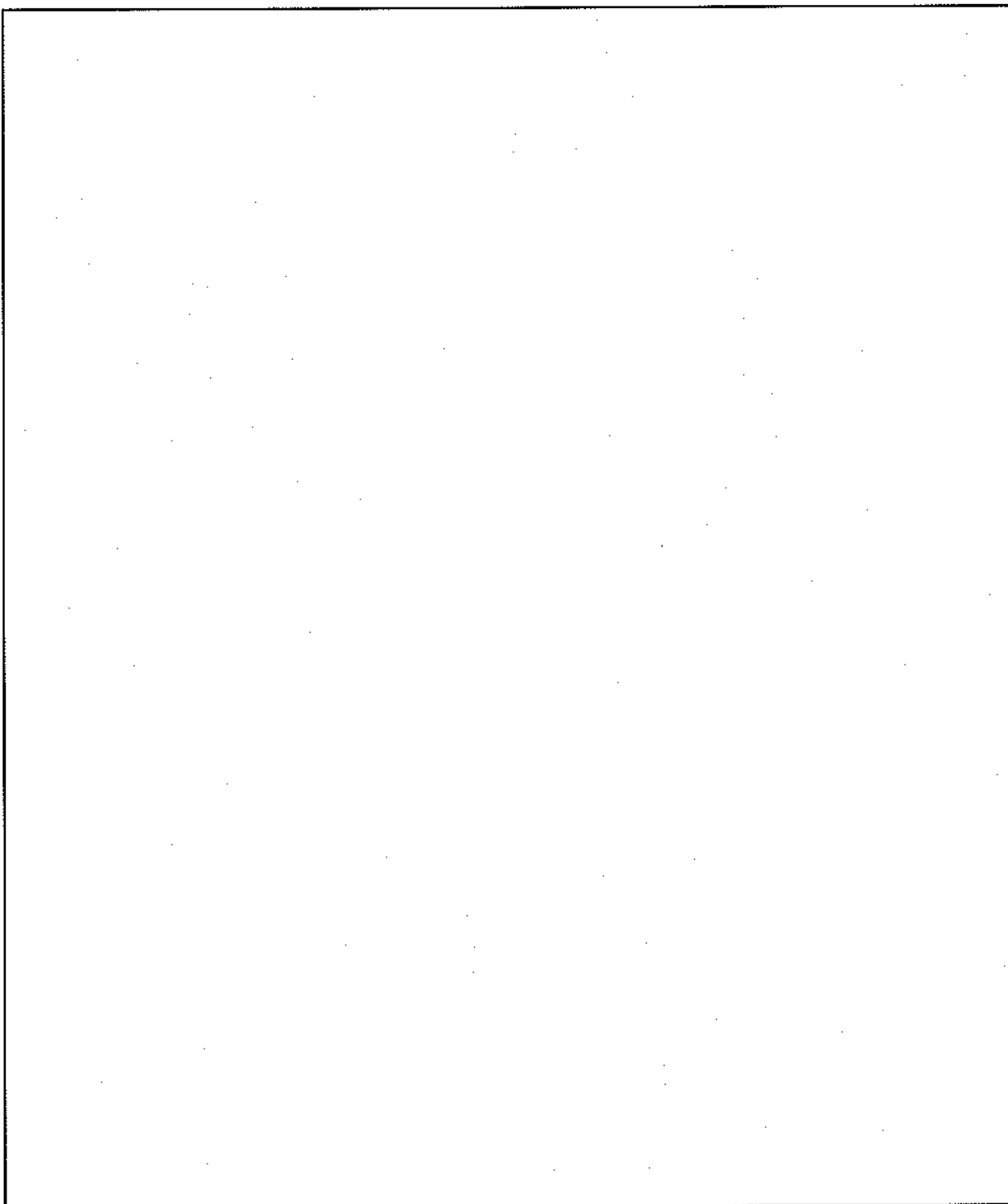
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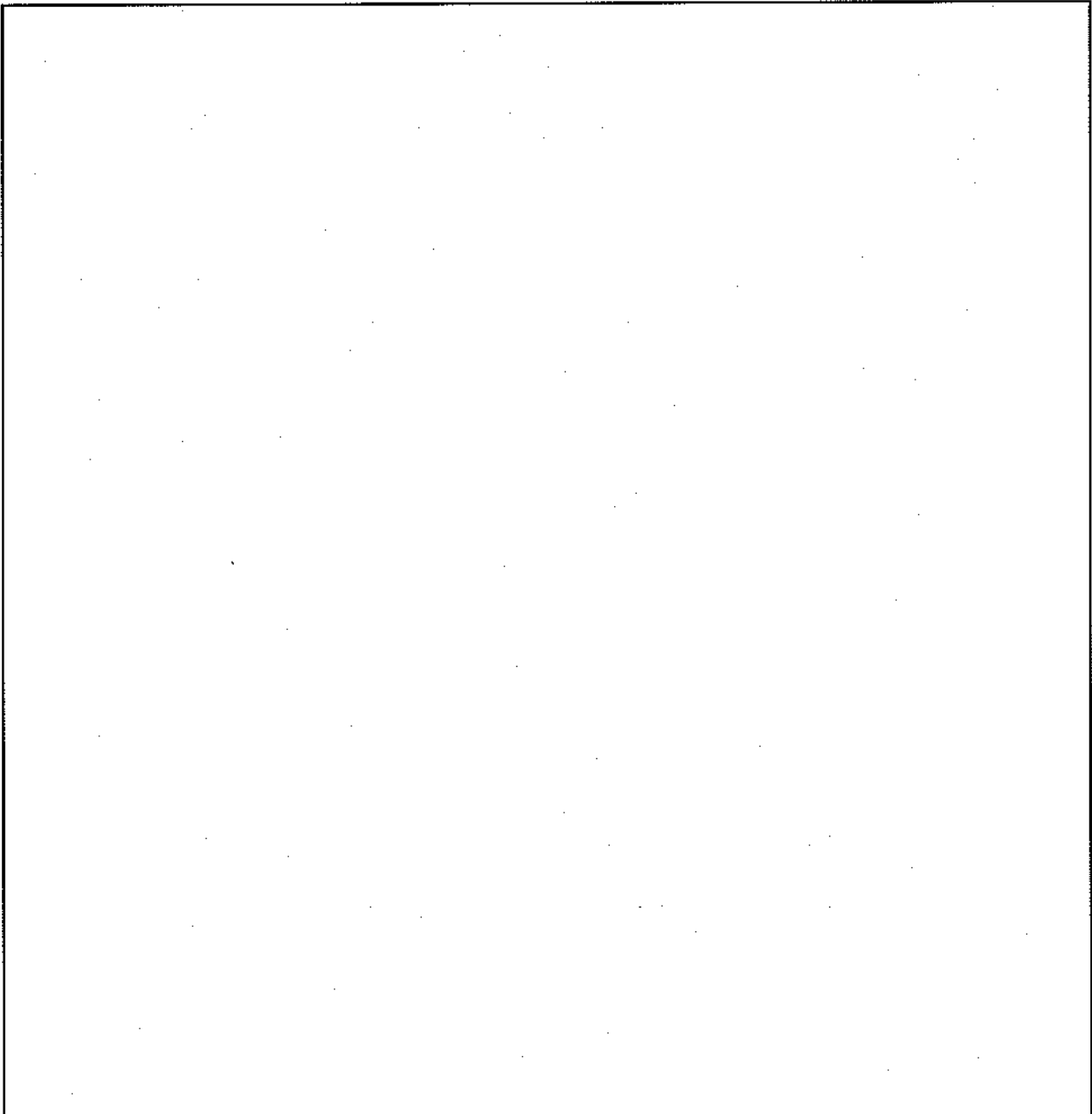
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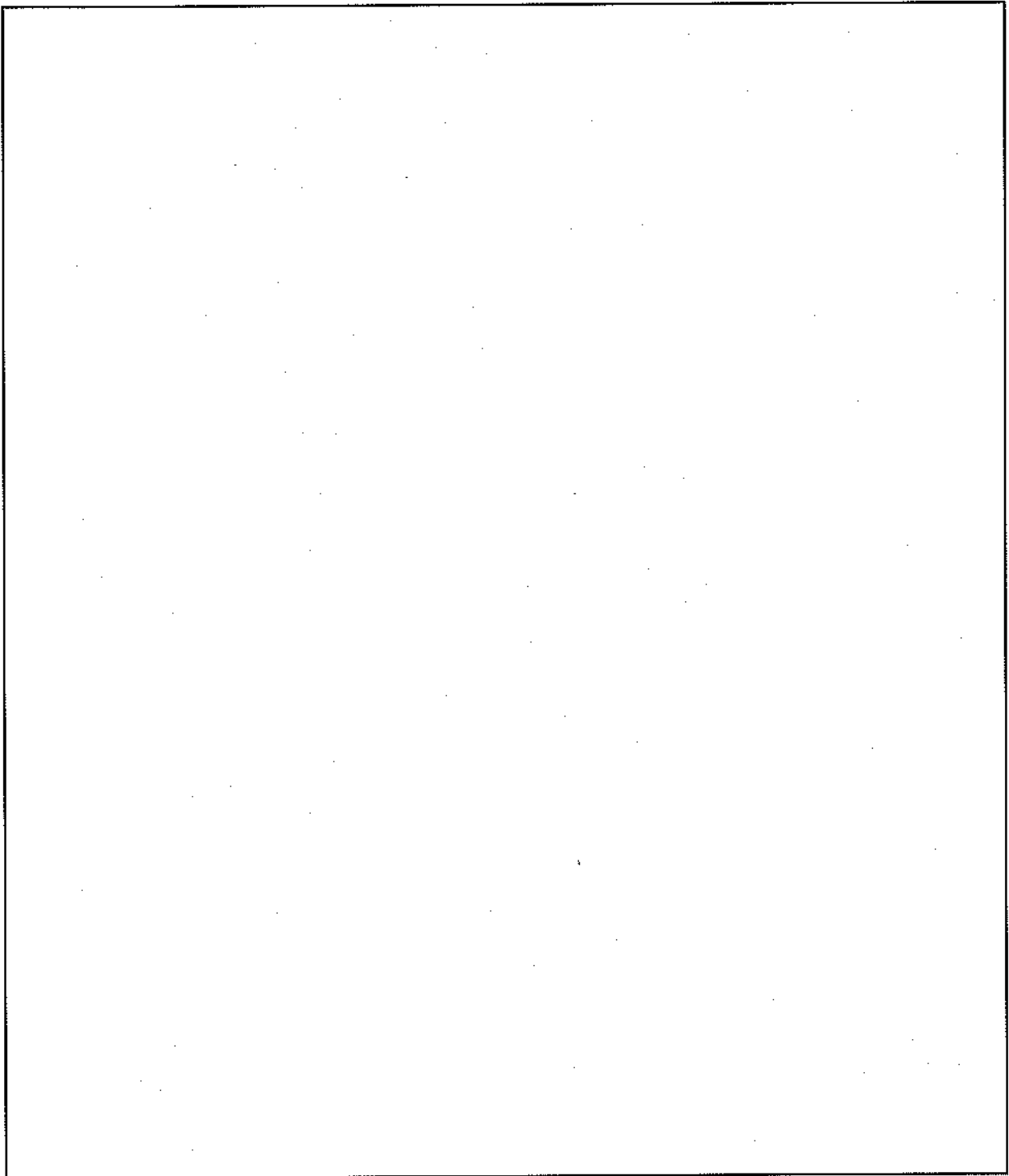


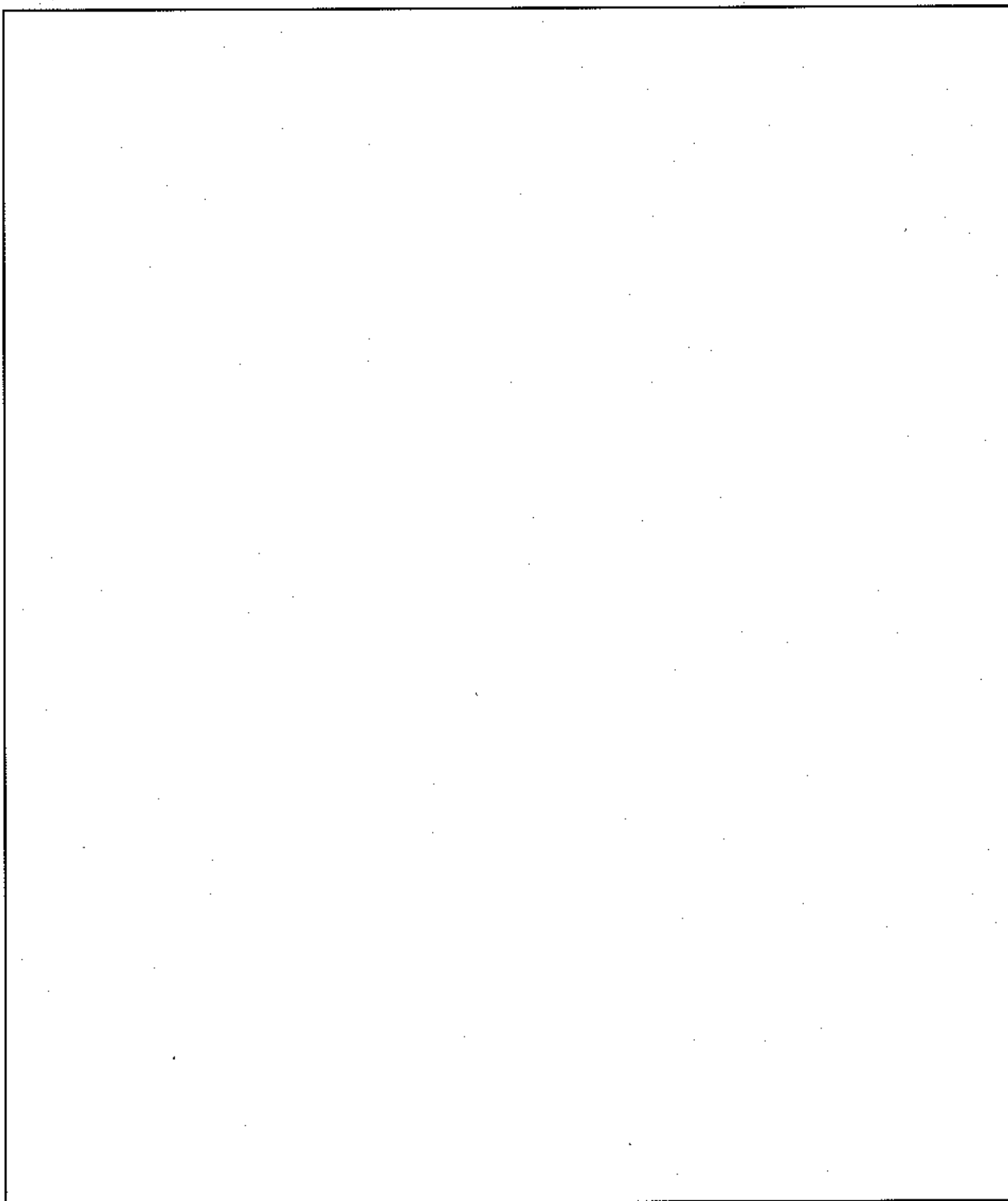


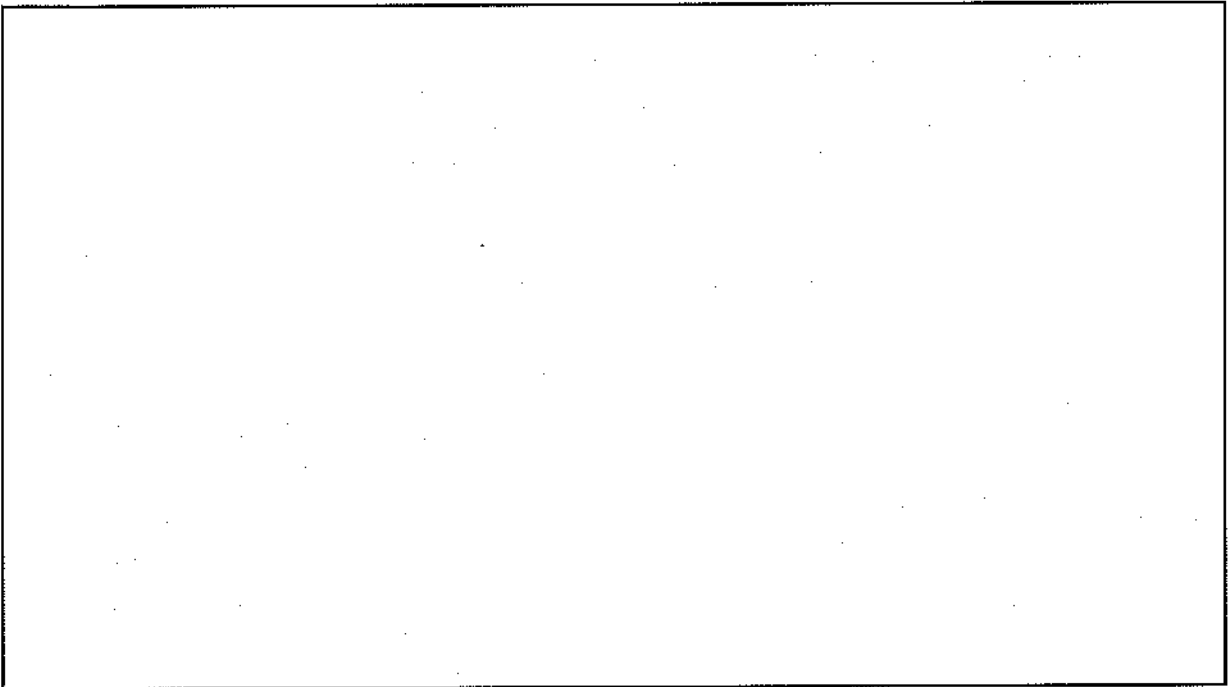
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- Joint Publication 1-04, *Legal Support to Military Operations*
- Joint Staff J7 Insights and Best Practices Focus Paper: *Authorities*
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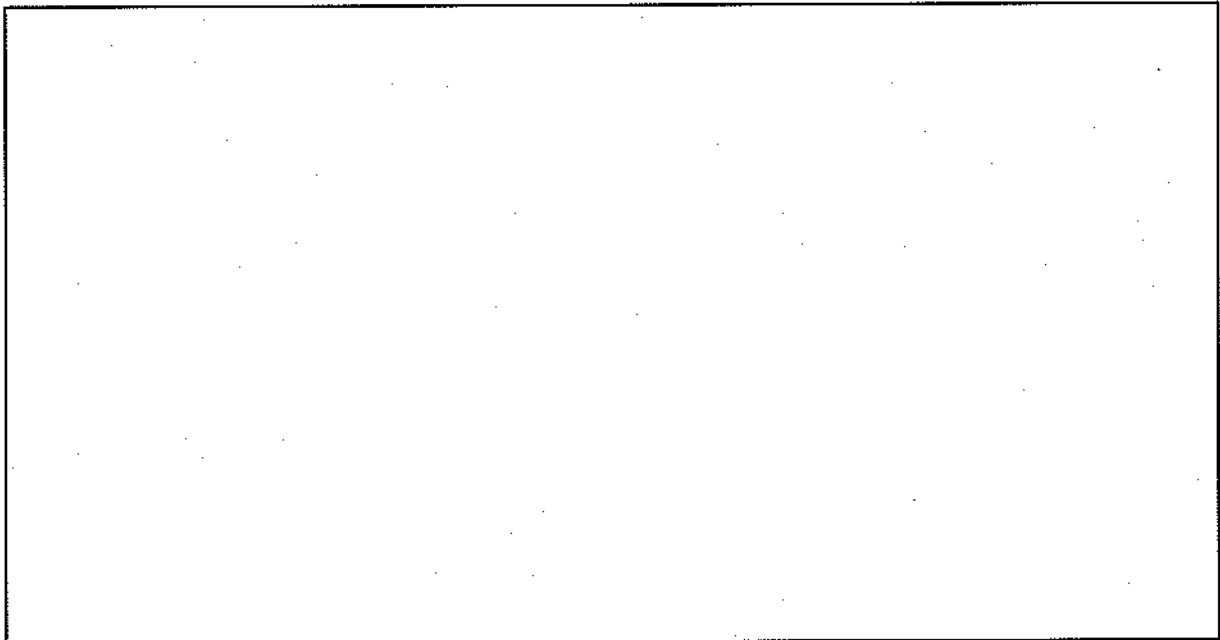




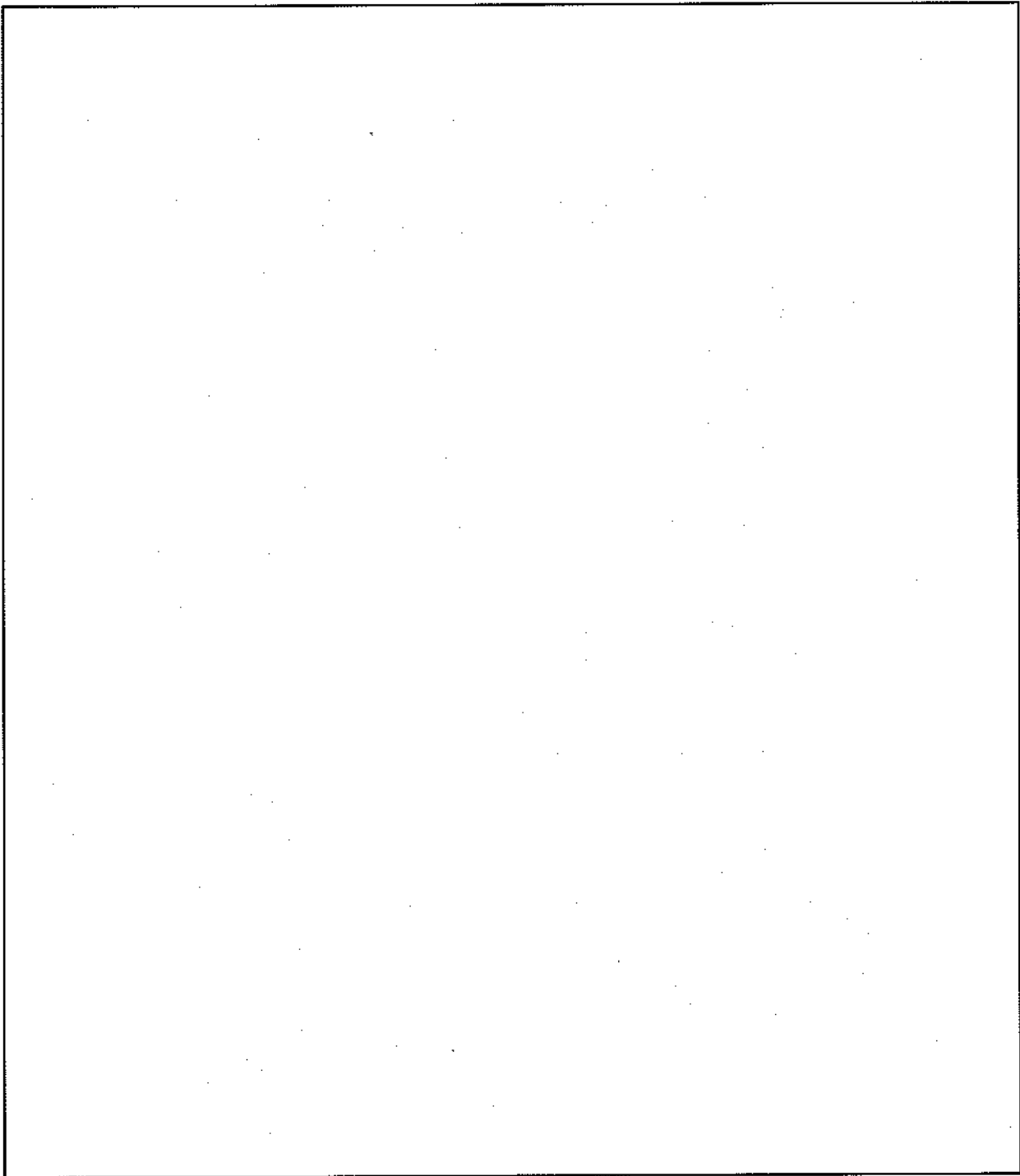
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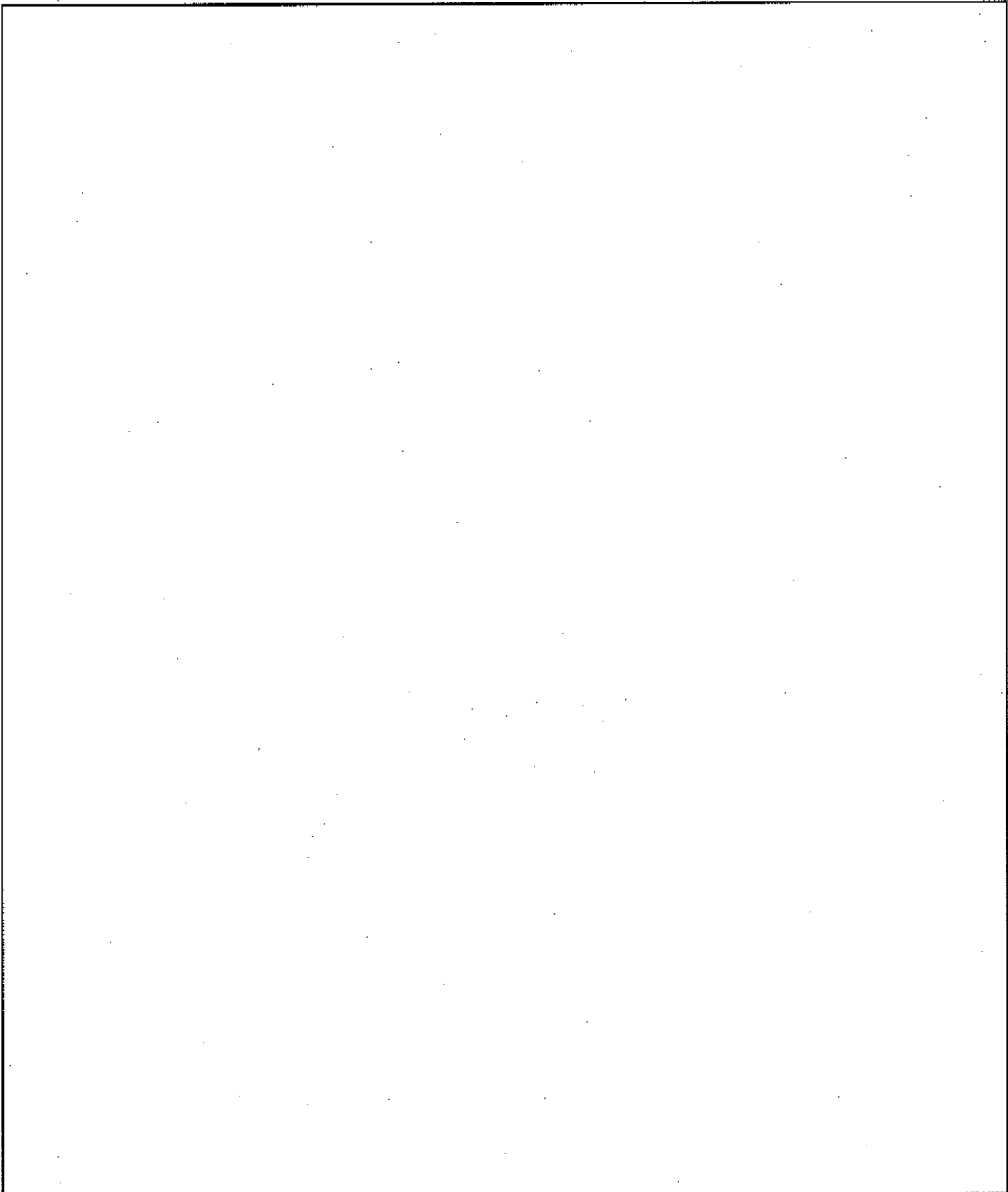
- Joint Publication 3-08, *Interorganizational Cooperation*
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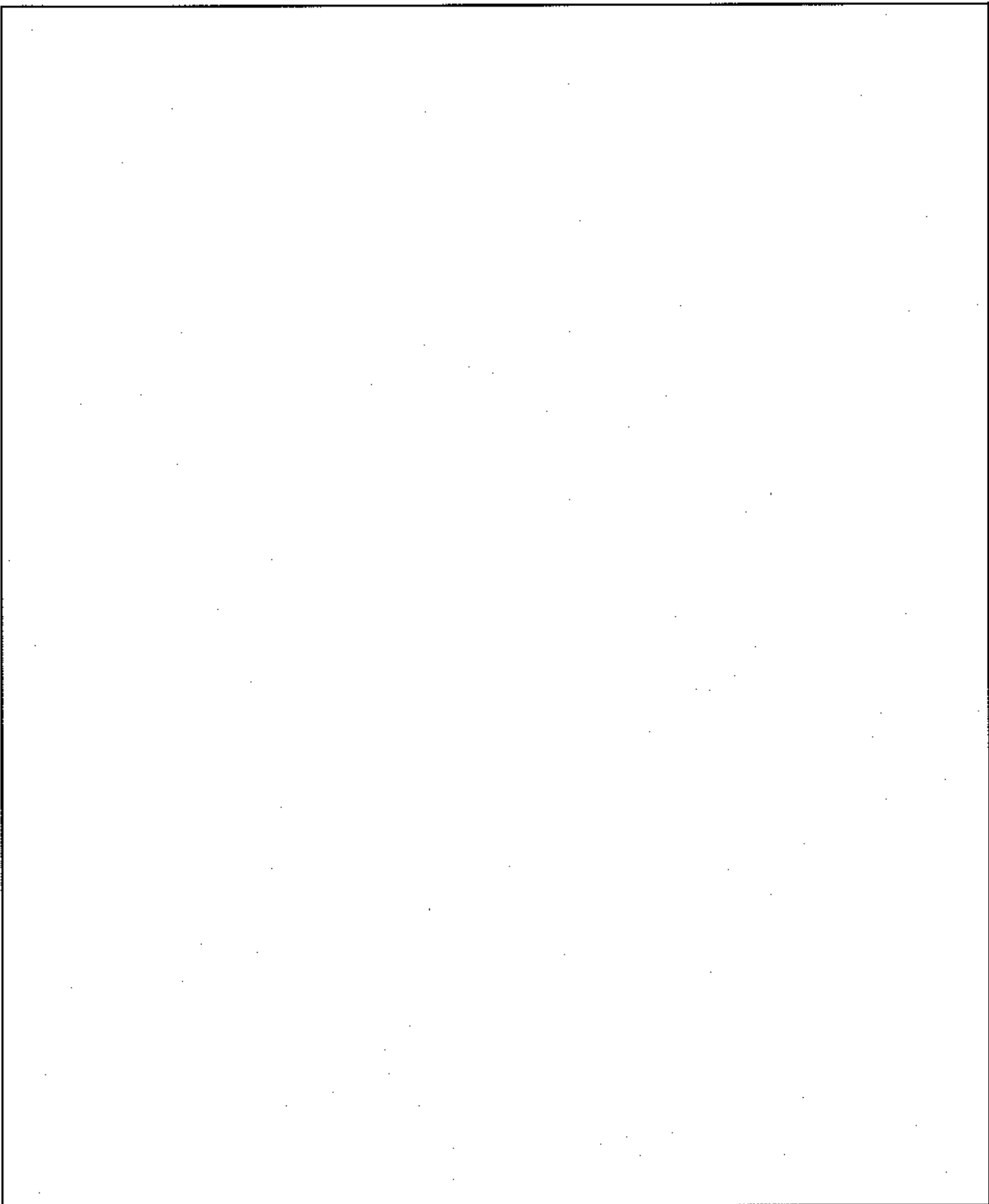
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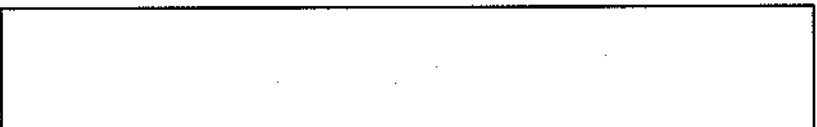
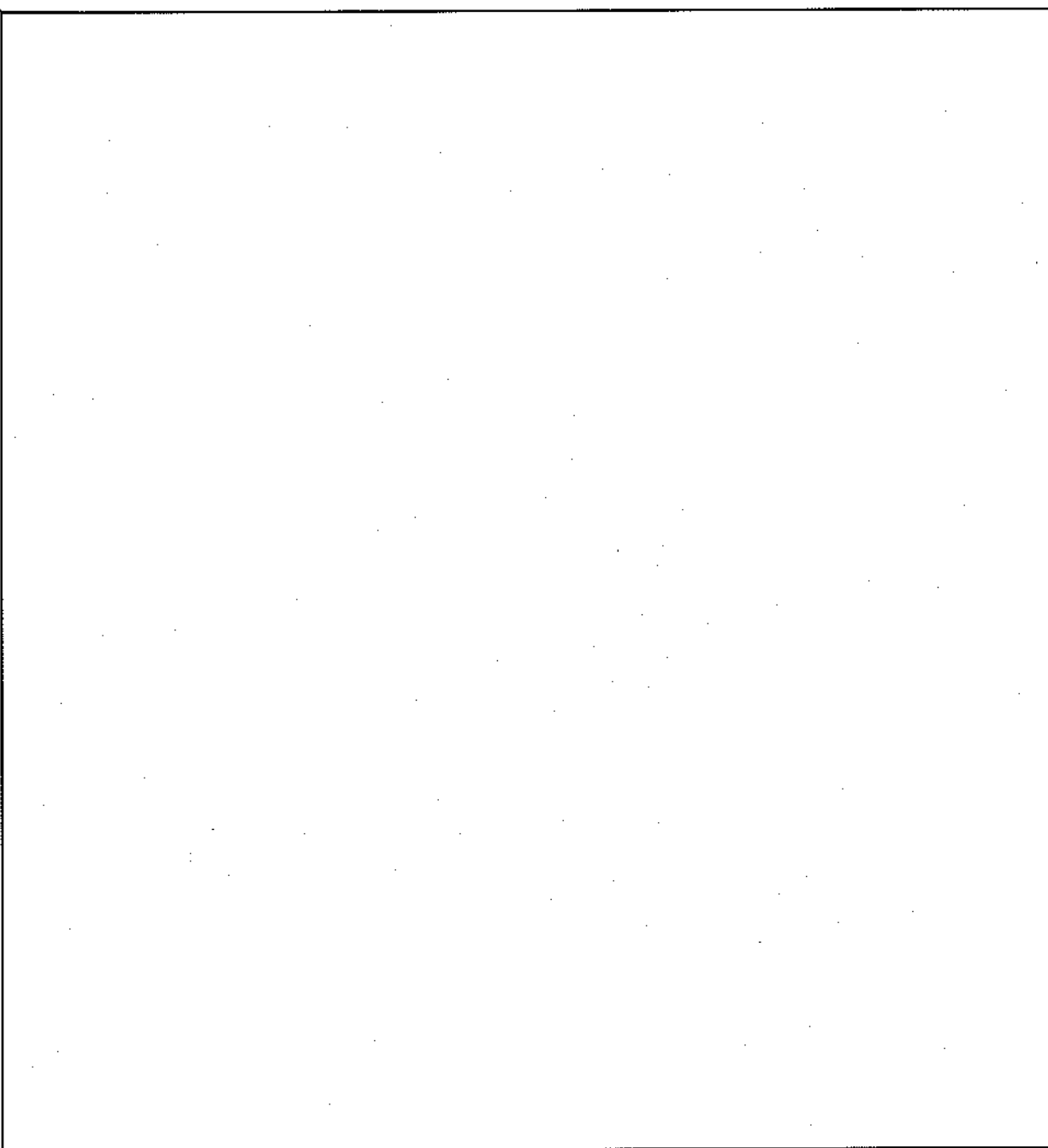






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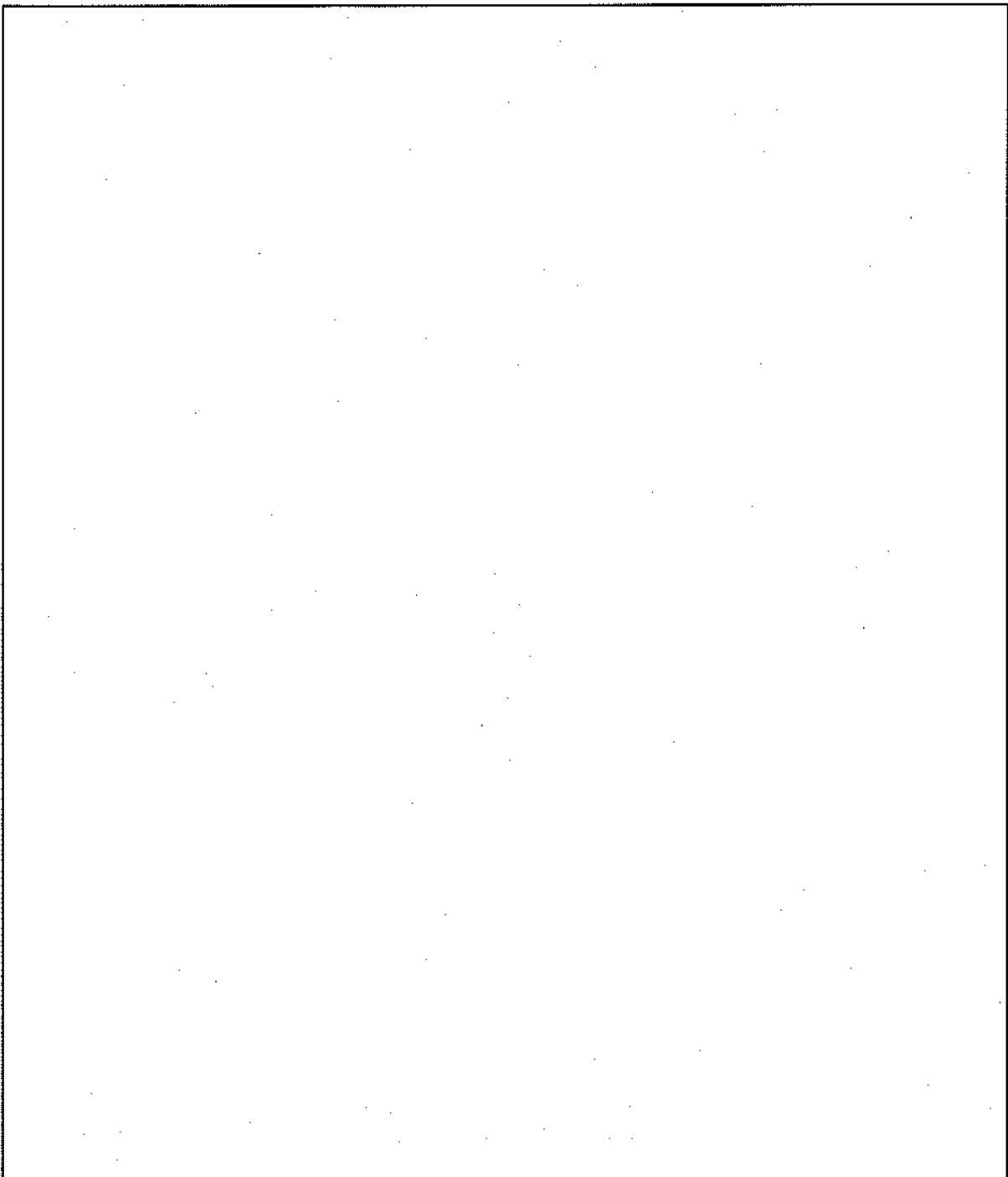
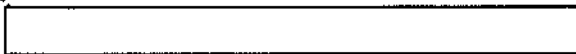


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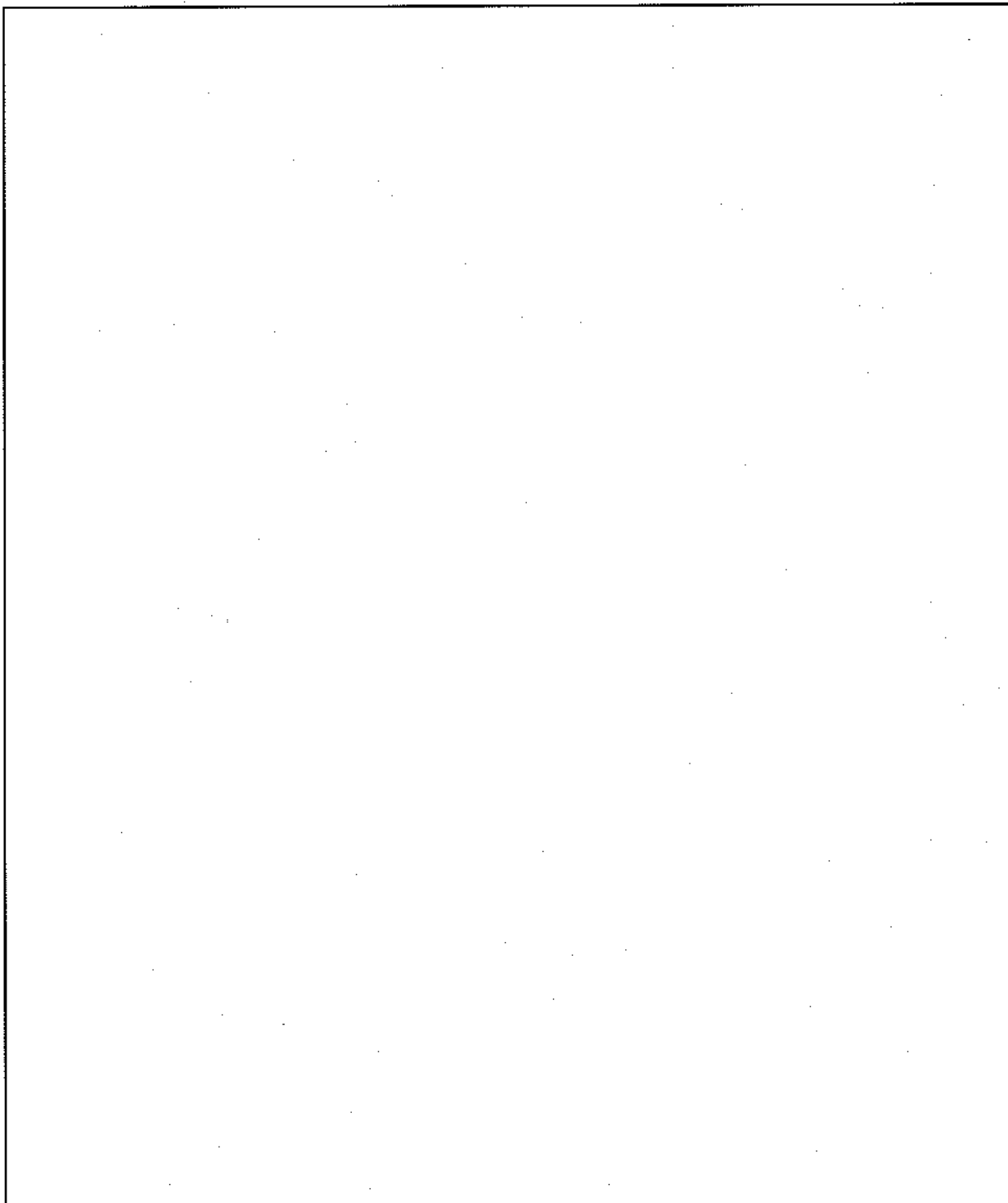
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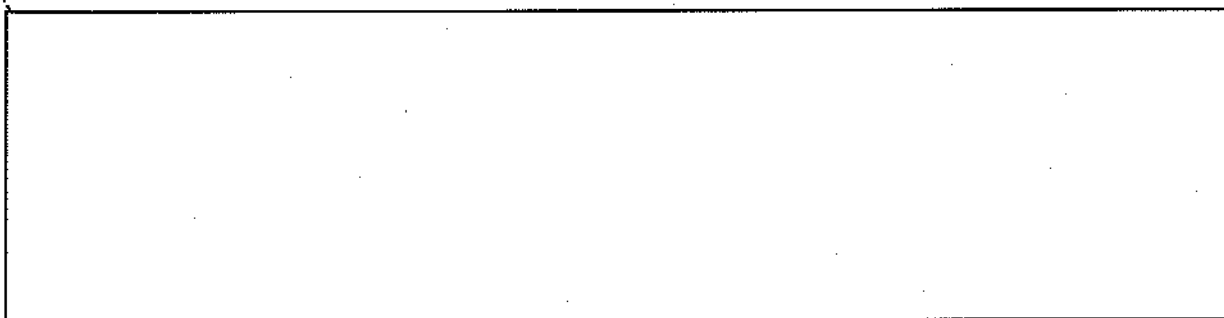
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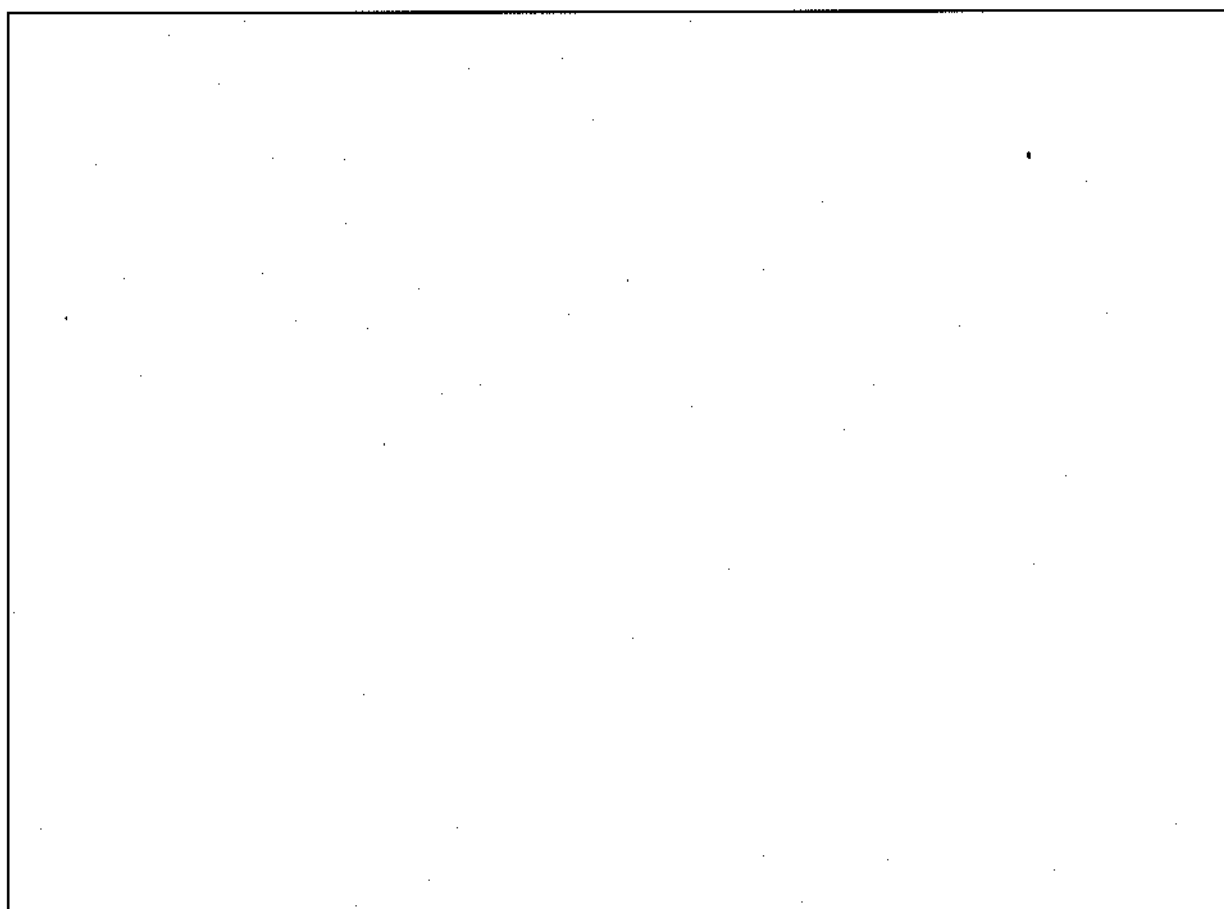
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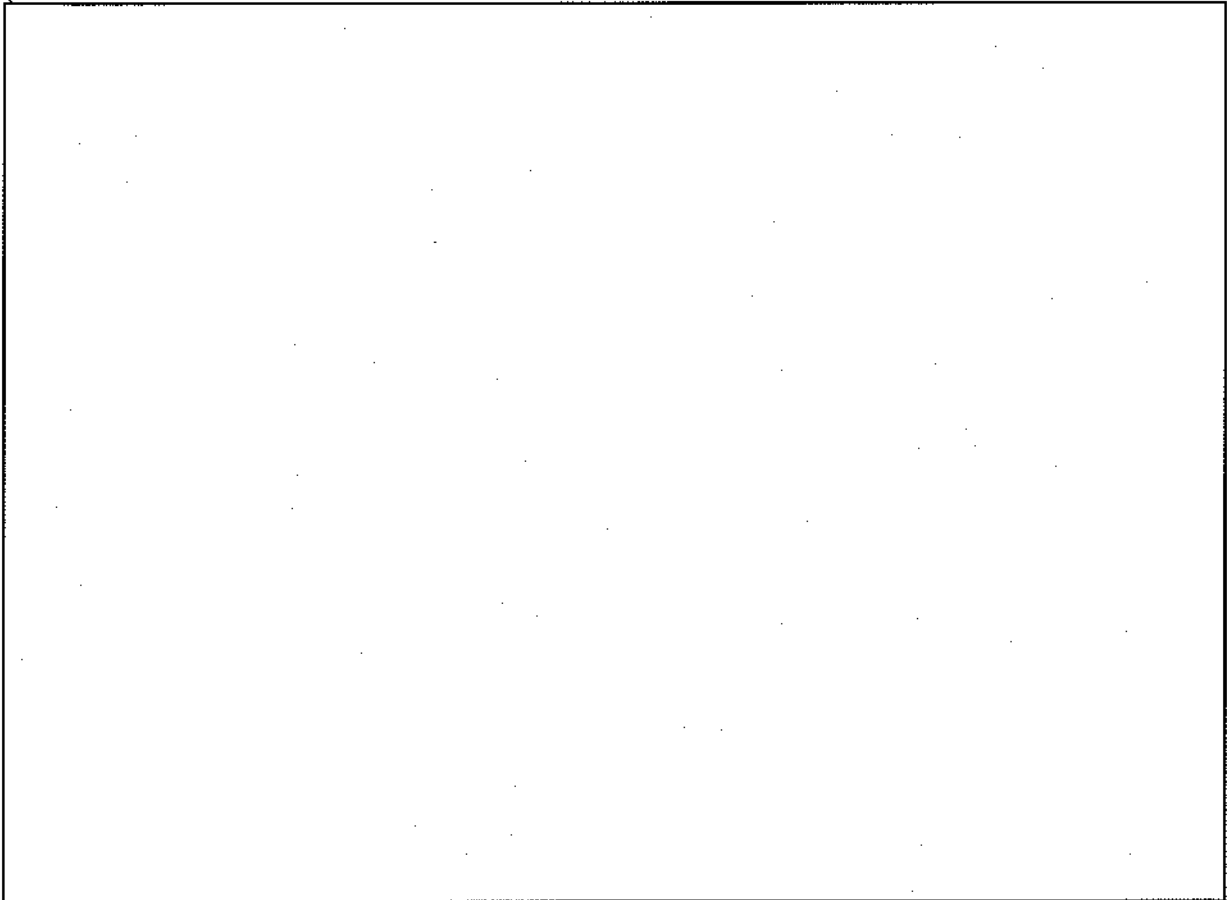




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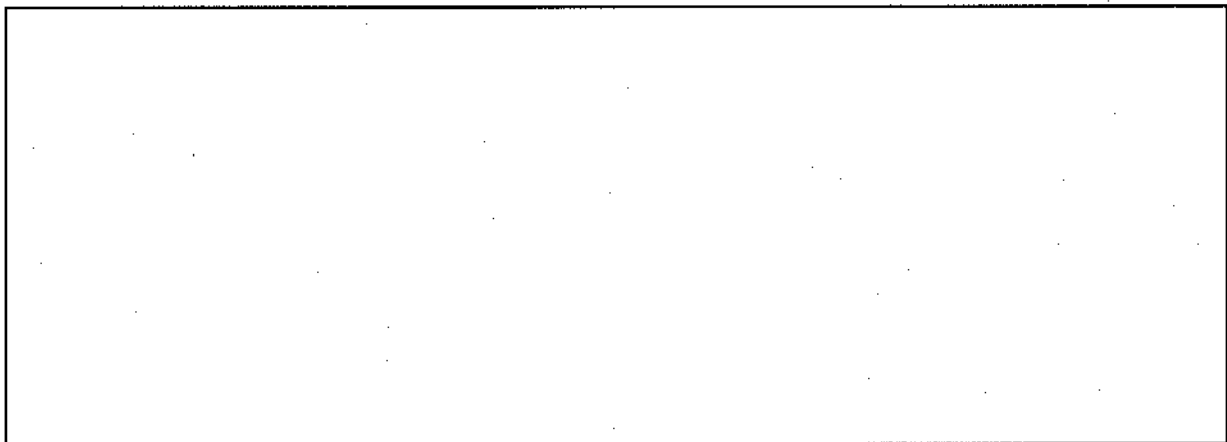
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- CJCSM 3130.03, *APEX Planning Formats and Guidance*
- CJCSM 3127.01A, *Joint Operations Planning and Execution System*
- Joint Staff J7 Insights and Best Practices Focus Paper, *Design and Planning*

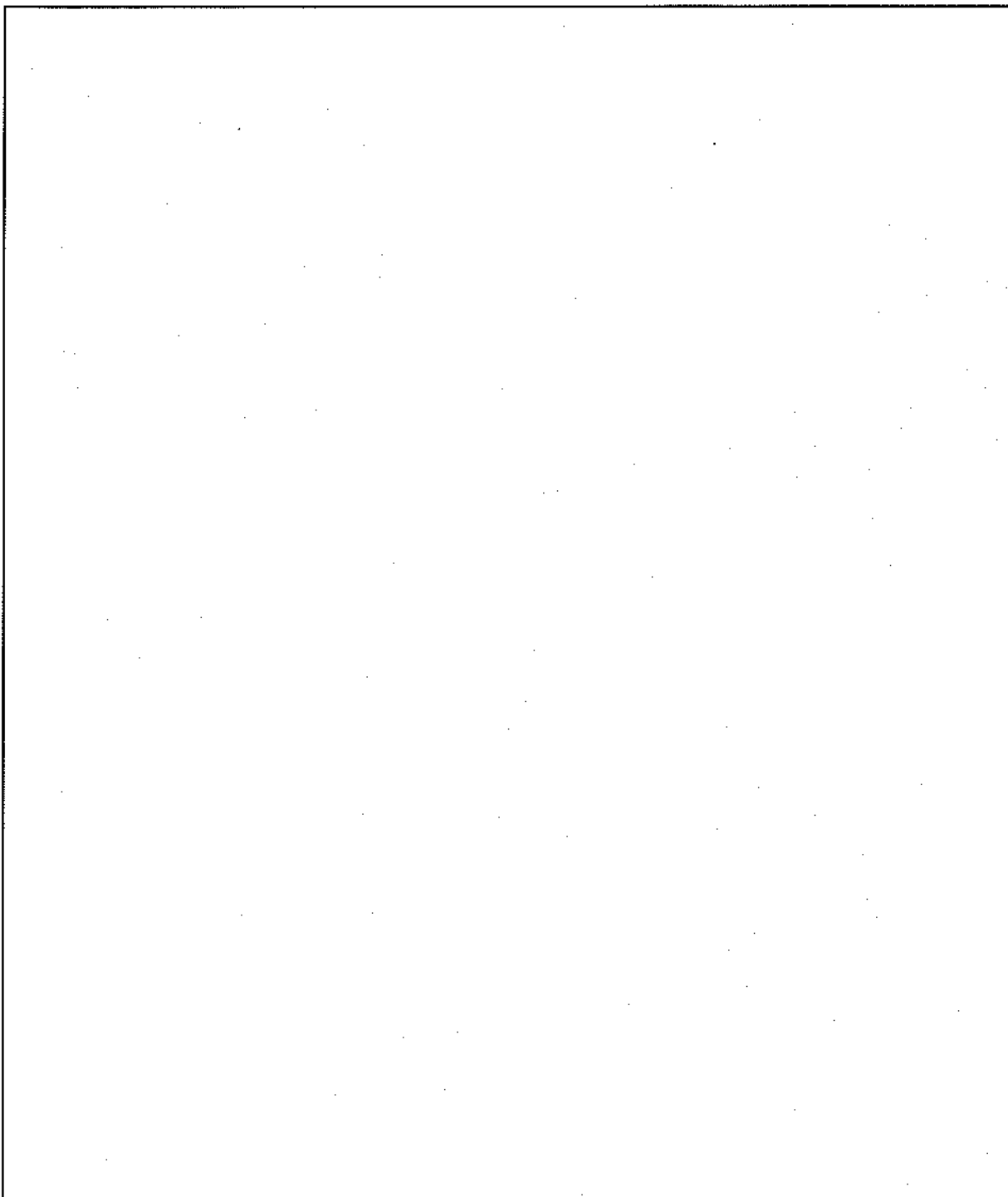




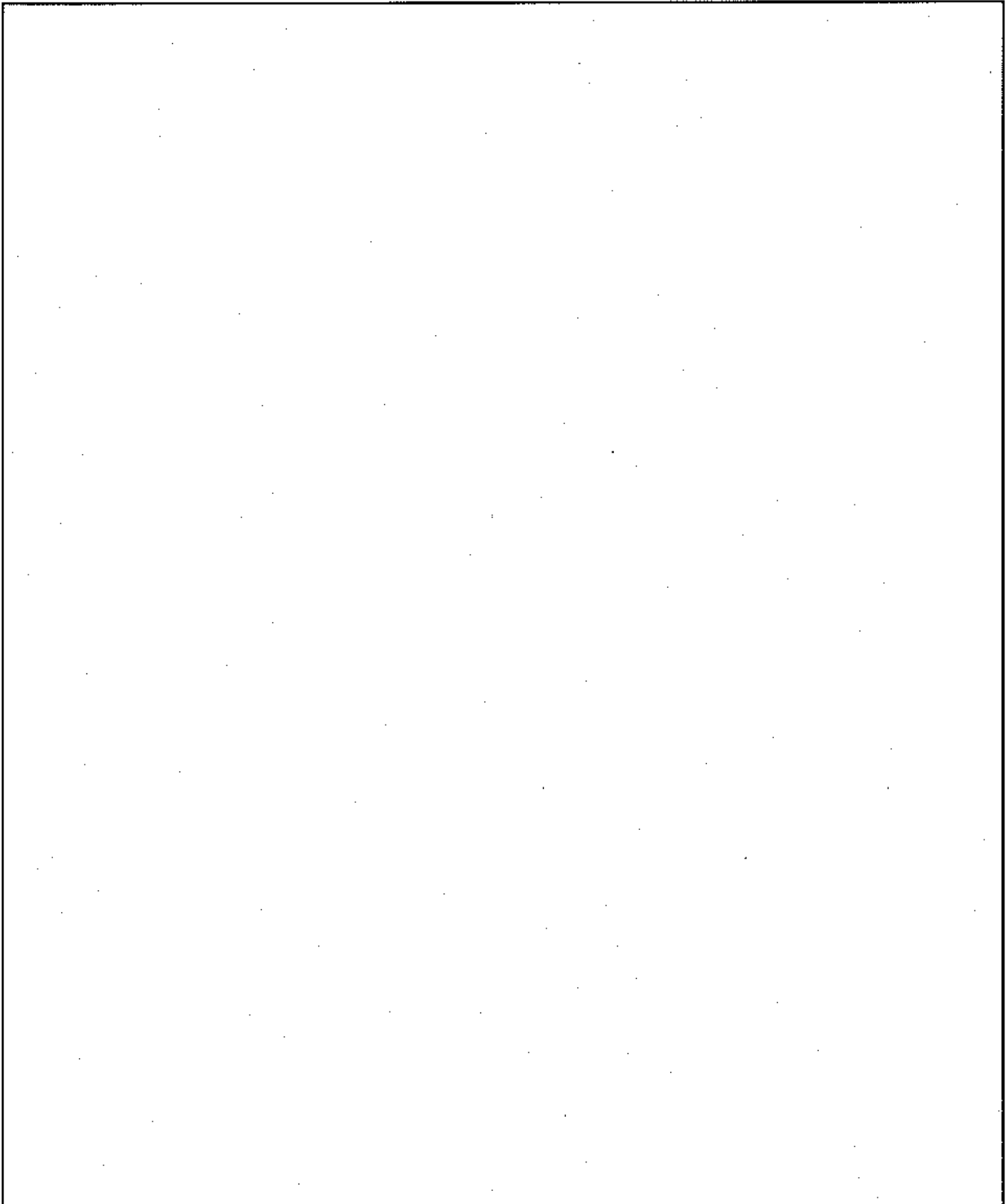
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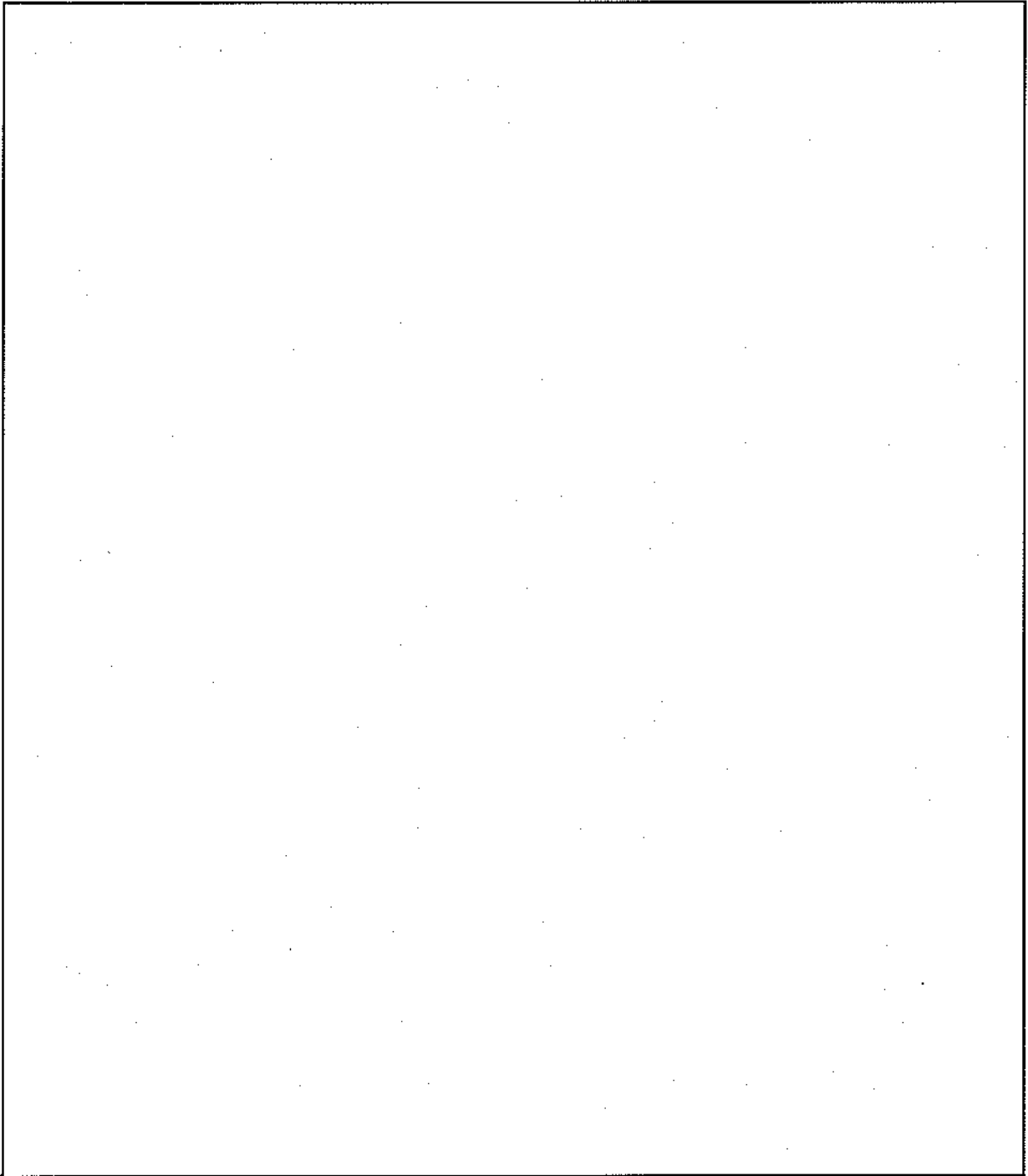
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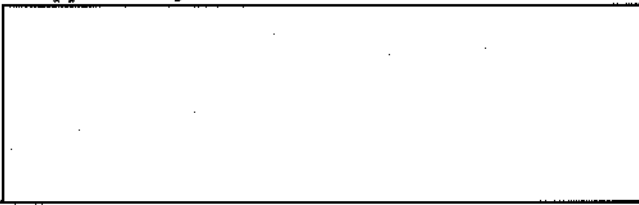


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- Joint Staff J7 Insights and Best Practices Focus Paper, *Integration of Lethal and Non-Lethal Actions*
- Joint Staff J7 Insights and Best Practices Focus Paper, *Communications Strategy and Synchronization*

Approved by:

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Joint Staff
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CYBER LIGHTNING (CL) 19 Academics Executive Summary

(U//FOUO) **BLUF:** Prior to the CL 19 execution (13-26 March) the USCYBERCOM J7 hosted and facilitated a series of academics, to include: a Joint Staff J7 facilitated Senior Leader Seminar, a Transition Brief/Senior Leader orientation, and a Cyberspace Operations Integrated Planning Elements (CO-IPE) employment plenary brief.

1. (U//FOUO) **Senior Leader Seminar (30 January 2019).** This seminar addressed three strategic topics: Globally Integrated Cyber Operations, Leveraging the Enterprise, and Knowledge Management and Battle Rhythm.

Globally Integrated Cyber Operations. The discussion centered around two topics: decision superiority and Coordinating Authority. The command identified that Knowledge Management (KM) is a shared responsibility and acknowledged that gaining a shared understanding of the Common Operational Picture (COP) currently relies on manual processes (as of February 2019). Participants agreed the Commanders Critical Information Requirements (CCIR) are key to focus KM activities, and development of CCIR tied to anticipated Commander's decisions (projected in time and space through a Decision Support Template) will better focus the staff on information critical to the Commander's decisions

Additionally, the USCYBERCOM DCDR led a discourse of empowerment versus delegation of authority. It is recommended the command continue to frame the difference between delegation of authority and the empowerment of a subordinate to accomplish an assigned mission.

Leveraging the Enterprise. First, this discussion was framed by "up and out" versus "down and in" integration. The leadership identified the importance of interdepartmental, interagency, and international partner coordination common between USCYBERCOM and other CCMDs, and identified the unique requirement for USCYBERCOM to maintain robust coordination with industry partners.

Second, the USCYBERCOM DCDR posited the requirement to define and implement an assessments framework informed by planning as well as operational and force development activities to inform the Commander regarding risk, options, and opportunities.

Finally, the USCYBERCOM DCDR challenged the assembled to consider how the command should integrate guard and reserve component forces into the planning and execution of exercises and operations from the perspective of staff augmentation and mobilization of maneuver forces.

Knowledge Management/Battle Rhythm. The JS J7 facilitator initiated the discussion with an overview of the multiple lateral and vertical organizations with whom USCYBERCOM must coordinate and the challenge that poses with nesting of battle rhythms and decision cycles. Leadership discussed the command's approach to nest first with the Chairman and Secretary of Defense's battle rhythms and

discussed the role of Cyber Service Components, JFHQ-Cs/DODIN, and CO-IPE's in facilitating integration into supported CCMD battle rhythms.

2. (U//~~FOUO~~) **Transition Brief and Senior Leader/Action Officer Academics (22 February 2019).** The USCYBERCOM J7 led the Transition Brief for the HQ Staff, Service Components, and participating Combatant Commands Senior Staff with the purpose of building situational awareness about the exercise design, and to set the command's operational posture as it took ownership of the exercise from the Joint Staff. The turnover brief included executive-level academic topics, as well as an action officer-level seminar designed to provide a more detailed overview of the exercise design, and the internal processes (e.g. the Request for Information, and the assessments and evaluations processes). This session's topics expansively discussed the following:

- Reviewing Execution-1 ENDEX conditions such as Rules of Engagement, current authorities, and Course of Action overview to set the stage with previous planning and operational tasking authorities.
- Updating the Exercise overview to include Road to Crisis and Current Situation templates; as well as the Command's Operational Approach/Glide Slope, which highlighted the exercise three areas of emphasis (integration, coordination, and elevation).
- Informing staff on the COP concept and use of COP tool suites to guide specific actions needed to develop decision points for leadership.
- Describing the J7 process used to enable observation, evaluation and record lessons learned.
- Presenting recommendations for the Chief of Staff to establish the Warm Start conditions, confirm the proposed Battle Rhythm and emphasize attendance/participation requirements.

3. (U//~~FOUO~~) **CO-IPE Academics (25 – 27 February 2019).** This portion of the academics provided the audience with a comprehensive CO-IPE orientation, Table Top Exercise and Rehearsal of Concept drill. Furthermore the CO-IPE session informed the CL 19 training audience (CO-IPE Staff, USCYBERCOM LNO, USCYBERCOM HQ Staff, Component Staff, DODIN, Supported CCMD JCC and Operations staff) on CO-IPE employment expectations while continuing to improve CO-IPE mission performance as it stands up and approaches IOC. The CO-IPE academics extensively covered the following topics:

- Building off CL 19-1 lessons learned, in order to improve CO-IPE roles and responsibilities. Running TTX Vignettes in support of C2/Reporting, delegated authority, enabling Request for Support/ Request for Forces, and full spectrum fires planning and execution.
- Informing CO-IPE personnel and larger training audiences on CO-IPE processes with respect to cross-CCMD coordination; especially related to supported vice supporting command situations.
- Tailoring CO-IPE exercise activities to ensure training objectives would be met while addressing the restrictions current staffing and capability shortfalls create.