Designing AI Integration

A Process Based Approach

By Major Alex Noll, MBA and Richard A. McConnell, D.M.

"A clever process beat superior knowledge and superior technology…I represented my conclusion like this: weak human + machine + better process was superior to a strong computer alone and, more remarkably, superior to a strong human + machine + inferior process."

— Garry Kasparov, Deep Thinking, p. 246

There is a lot of hype around Artificial Intelligence (AI). Across the Department of War (DoW), new tools such as GenAI have come online, and it's our responsibility as leaders to learn how to incorporate these tools into our workflow. The Command and General Staff School (CGSS) provides an environment where students can experiment, tweak, and learn how to use these tools in a non-attributional framework with unclassified materials. While the introduction of tools like Vantage and GenAI is an excellent step in the right direction, the following platform test took place outside the constraints of DoW-based tools and used a commercial model (Claude) to push the boundaries of how AI could impact Army processes.[1]

Lt. Gen. Gregory Anderson, commanding general of XVIII Airborne Corps and Fort Bragg, receives a briefing during a visit to the Mission Training Center at Fort Bragg, North Carolina, on April 1, 2026. The visit was part of Scarlet Dragon, a joint training exercise that tests new data-sharing and artificial intelligence capabilities for the force. (U.S. Army photo by Sgt. Prim Hibbard)

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The analyzed platform test shows how inviting AI to the table is about design; it is about "a way" AI can act as a collaborator. Through management of the AI's environment, a group can provide the right context, engineer the skills the AI needs, and implement guardrails to achieve a better defined and more accurate output.

Methodology

This test grew from the fact that our group, SG6A, did not have an intelligence officer, and we were preparing for an intelligence collection Practical Exercise (P.E.) that was driven by Master Scenario Event List (MSEL) injects. Students needed to choose the most likely enemy threat course of action (TCOA) from 5 possibilities; it was for this task that AI was deemed to be useful. When the use of AI was granted to assist with the P.E. the group began designing the approach to best use the AI. The first thing the group did was develop skills.[2] Some of these skills were developed throughout the course as a side project, but these skills consisted of the following:

1) Synch-Matrix
2) Collection-Matrix
3) Threat-Template
4) Intel-Estimate
5) Decision-Support

Figure 2. Project instructions establishing AI operating parameters

Role & Scope:

You are the I Corps staff, operating as full G-2 and G-3 teams (Corps level). The practicum is intelligence-focused, with operations used to support assessments of enemy courses of action.

Scenario:

- It is 2000 on 05 March 2030 (C+92).
- 6th Army has received indications of a possible 71st ACG violation of the Exclusion Zone.
- The I Corps commander wants the staff to evaluate collection and assess which enemy course of action (ECOA) is being executed.
- The Chief of Staff directs an informal staff brief to the commander on the morning of C+95.

Primary Task:

- Assess available intelligence, evaluate collection effectiveness, and determine the most likely ECOA.

Rules & Standards:

- Stay grounded in provided sources; cite explicitly.
- Use doctrinal terms (JP/ADP/FM where applicable).
- G-2 leads the assessment; G-3 provides operational context only.
- Identify second- and third-order effects of any recommended changes.
- If information is missing, ambiguous, or contradictory, pause and ask for clarification before proceeding.
- If a better method or framework exists, recommend it and explain why.

Figure 1. Skills architecture showing interconnected AI capabilities

```
name: collection-matrix
description: Creates Information Collection
Synchronization Matrices (ICSM) in Excel format for
Brigade, Division, and Corps operations. Links PIRs
to indicators, SIRS, NAI, and collection assets with
time-phased hourly synchronization. Produces ATP
2-01 compliant products for Annex L (Information
Collection). Requires xlsx skill. Triggers on
"collection matrix", "information collection",
"ISR matrix", "collection plan", "Annex L", "R&S
matrix", "reconnaissance and surveillance", "ICSM",
"collection synchronization matrix".
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# Collection Matrix Skill (Brigade/Division/
Corps Level)

## Purpose
This skill creates an Information Collection
Synchronization Matrix (ICSM) workbook in Excel
format. The workbook contains three sheets that
together synchronize reconnaissance, surveillance,
security, and intelligence operations with the
overall operation using hourly time-phased columns
and H-hour relative timing.

## References
- ATP 2-01 (Plan Requirements and Assess Collection)
- FM 3-55 (Information Collection)
- FM 5-0, Annex L (Information Collection)
- FM 2-0 (Intelligence)

## Dependency
This skill requires the **xlsx skill** for Excel file
creation. Claude MUST read `/mnt/skills/public/xlsx/
SKILL.md` before creating the Excel file.
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## Product Overview
The ICSM workbook contains exactly **3 sheets** (plus
an optional ESRI_MAPPING_SHEET placeholder):
| Sheet | Purpose |
|-------|---------|
| **ICSM** | Time-phased synchronization matrix
showing collection assets vs hourly columns across
all phases |
| **PIR Template** | PIR breakdown with EEI,
indicators, SIRS, LTIOVs, NAIs, and asset T/C/R
assignment matrix |
| **NAI Worksheet** | NAI-by-NAI cross-reference
linking NAIs to SIRS, PIRs, DPs, decisions,
indicators |
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## Required Context Questions

Before building, Claude MUST ask if not provided:

1. **What echelon?** (Brigade, Division, or Corps)
2. **What is the unit designation?** (e.g.,
   "2/1 ABCT")
3. **What is the operation name?**
4. **Do you have an OPORD or INTEL Estimate to
   extract from?**
5. **What are the PIRs?** (Priority Intelligence
   Requirements - the questions)
6. **What NAIs have been developed?** (with
   associated SIRS/indicators)
```

```
# CGSC Warfighting Function Planning System
You are the Chief of Staff for a military planning cell at the Command and General Staff College. Your role is to
orchestrate the staff through the Military Decision Making Process (MDMP).

## Your Responsibilities
- Receive commander's guidance and mission statements
- Task appropriate warfighting function staff sections
- Synthesize inputs into coherent planning products
- Guide users through MDMP steps
- Ensure all warfighting functions are integrated

## Available Staff Sections (via Task tool)
Use the Task tool to delegate to these specialists:
| Agent | Use For|
|------:|--------|
| command-control | COA development, OPORD, sync matrix, decision support |
| intelligence | IPB, threat analysis, enemy COAs, PIRs, NAIs |
| maneuver | Scheme of maneuver, tactical tasks, forms of maneuver |
| movement | Route planning, terrain analysis (OAKOC), mobility ops |
| fires | Fire support plan, HPTL, AGM, targets |
| protection | Force protection, risk assessment, security |
| sustainment | Logistics, supply, maintenance, medical, CSS |
| information | IO, cyber, EW, MISO, civil affairs |

## MDMP Steps
1. Receipt of Mission
2. Mission Analysis
3. COA Development
4. COA Analysis (Wargaming)
5. COA Comparison
6. COA Approval
7. Orders Production

## Key Principles
- ALWAYS task Sustainment during COA development to validate feasibility
- ALWAYS task Intelligence before Maneuver (need threat picture first)
- Task Movement for terrain analysis before scheme of maneuver development
- Integrate Protection considerations into every COA
- Information Operations should shape throughout

## Output Location
Save all staff products to the `outputs/` directory.
```

Figure 3. AI-generated G2 assessment report following 40 injections

Each of these skills were linked to the others and used docx and xlsx underneath. These skills (see **Figure 1** on previous page) remove some of the guesswork by providing examples from references. This allows the AI to have context for the action's intent and the expected end result.

After the skills were developed, the group entered a Claude project folder.[3] A project provides more options for a user to place restraints, provide additional context and allow better control. The project instructions (see **Figure 2** on previous page) were uploaded to provide further context for exactly how the skills should be utilized and in what capacity. The rules and standards provide "a way" for the AI to free itself from sycophancy and hallucination by telling it to stay grounded in the project sources, ask for clarification when necessary, and offer creative (hallucinated) solutions if it explains why. Finally, the group ensured memory was consistently monitored in the project, allowing the AI to maintain a running scratch pad of what happens so it doesn't lose context across multiple injects.[4] Following the instructions and memory, we loaded all the scenario documents into the project's reference folder. This gave Claude further context and reference material for the assessments during the practical exercise.

Execution

Once the AI design was built, all we needed to do was wait for the MSEL injects. Each injection was written verbatim and allowed Claude to produce a comprehensive report each turn identifying how the injection correlates with other injections, how it impacts the PIRs and Commander's decision points, and how it relates in the "weight of evidence" for which TCOA the enemy was pursuing. These comprehensive reports built upon each other, and every ~10 turns, we had Claude build a running Excel tracker with recommendations and analyses that the students could then discuss, counter, or debate. This debate allowed students to be focused on the thinking aspect of the practical exercise rather than the data collection and provided the students with a machine-based thinking partner to connect dots that they may have missed. However, this design also

EXECUTIVE SUMMARY

BLUE: TCOA 4 (Envelopment at Lop Buri) assessed MOST LIKELY at 60–65%. Main effort on AA5 with 164/165 BCG. However, 715 BCG attack on AA4 is stronger than fixing attack—heavy bridging and ELINT indicate serious penetration capability. Both 25ID and 3DIV (GBR) must prepare for main effort attacks

TCOA	PROB	ASSESSMENT
TCOA 4 (Lop Buri)	60–65%	MOST LIKELY. 165 BCG SHORAD and main body moving SE to AA5. 164 BCG seizing terrain at Wang Chomphu. Aviation and SOF priority on AA5.
TCOA 3 (Tak Fa)	30–35%	CANNOT DISCOUNT. Heavy bridging assets (Hz21/24, GQL-111) and ELINT (DZ-9300) on AA4 indicate serious penetration capability—not a fixing attack.
TCOA 1/2 (IMEF Sector)	<5%	DENIED. 715 BCG committed to AA4, 165 BCG moving to I Corps sector. No indicators of ME west.
TCOA 5 (Positional Defense)	<5%	DENIED. Enemy advancing aggressively. No indicators of culmination or defensive preparations.

Key Discriminating Evidence

Evidence Supporting TCOA 4 (Lop Buri):

1) 165 BCG HQ-7B SHORAD positioned on AA5 (48QVM 567321)
2) 165 BCG main body (>120 MTIs) moving SE toward AA5
3) 164 BCG seizes Wang Chomphu—offensive action, not fixing
4) 852 AVN priority on AA5; WZ-19 concentrating east
5) 774 SOF weight of effort on AA5 (MSR Michigan)
6) C2 retrains site positioned east of AA4 (supports AA5 ops)

Evidence Supporting TCOA 3 (Tak Fa):

1) **Heavy bridging on AA4:** 2x Hz21/24 + 1x GQL-111. This is penetration capability—you don't attack 812 ECD bridging battalion for a fixing attack.
2) **ELINT on AA4:** DZ-9300 hunting emitters. Pre-attack target acquisition for SEAD/counter-battery—serious attack preparation.
3) **7913 FA rockets WEST:** SR-4 MRLs positioned west of AA3, not supporting AA5. If AA5 were the ME, rocket artillery would be positioned to support it.

Analytical Tension

Maneuver indicators point to TCOA 4 (165 BCG to AA5, 164 BCG seizing terrain, aviation/SOF priority AA5). Fires and engineer indicators suggest TCOA 3 is more than a fixing attack (heavy bridging, ELINT, rockets not supporting AA5).

Possible Explanations:

- **Dual-axis attack:** Enemy prepared to exploit success on EITHER axis—165 BCG follows whichever penetration succeeds first

Figure 4. Hub-and-spoke architecture for multi-agent staff integration

provided opportunities for the students to wrestle with the AI's outputs when data and synthesis required a judgement variable. When the students disagreed with the AI, they would challenge the AI to prove its assertions. In both scenarios, the students learned by either seeing new connections they initially may have missed, or by having to prove to the AI why it was wrong in its synthesis. This iterative process of back-and-forth sparring enabled a deeper understanding of the current situation within the P.E.

Results and Analysis

Following the 40 MSEL injections, Claude was able to produce an assessment report (see **Figure 3** on previous page) from a G2's perspective, as well as a multi-tabbed tracker for each injection and its impact on the TCOA assessment. These final products allow a machine to roll up what the staff has seen and then modify them based on the human judgment variable. This proactive collaboration allowed students to use AI to do what it does best: data collection and management, product development and cross-referencing data as it grows in abundance. The human element took the lead when AI's probabilistic nature misrepresented a data point. For example, the bridging assets along TCOA 3 and AA4 received less weighting by Claude but more by the students. The ability to catch this discrepancy allowed the students to shift the context and weights immediately or to let it progress to see how subsequent data validated or invalidated the AI or human judgment. While the group followed the second approach and allowed the AI to run its own assessment, it provided a continuous contrary perspective based solely on the data.

Future Development

The future of this teaming effort is already in development. The prototype uses Claude in a hub-and-spoke type model. We used a skill file to allow Claude to act as Chief of Staff (see **Figure 4**). This chief of staff skill provides the orchestration layer, further down on the skill, to access other instances of Claude as separate agents throughout staff-level planning and processes. The references and templates in this project are pulled from the Field Grade Rucksack, and Python scripts[5] allow Claude to generate docx, xlsx, and pptx code and render them in Office 365.

Conclusion

This platform test aimed to show a way that current AI capabilities can facilitate learning while also assisting in the production of higher-quality products. Through a design focused on carefully building the AI's environments and by implementing a process of back-and-forth intellectual sparring, a small group at CGSC enabled the learning objectives by increasing their critical thinking skills and gaining a better understanding of intelligence collection through an AI teammate in the practical exercise. Inviting AI to the table augmented learning by spurring high level dialogue across war fighting functions.

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End Notes

[1] Claude is not currently scheduled for future use on the GenAI.mil platform. While this test used Claude (Anthropic), the capabilities demonstrated here: projects, code execution, and file generation can be replicated through ChatGPT (OpenAI) using custom Agents, Projects, and Skills through their Codex App.

[2] Anthropic, "what are skills?" Claude Help Center.

[3] Anthropic, "what are projects?" Claude Help Center.

[4] Anthropic, "use claude's chat search and memory to build on previous context" Claude Help Center.

[5] Anthropic, "create and edit files with claude" Claude Help Center.