

FULL SPECTRUM SPACE CYBERSECURITY PROFESSIONAL

MODULE 01 · MEETING MINUTES · SIMULATED RECORD

Module 01 Meeting Minutes Day 1, Concept of Operations

How the platform got one shared description

A simulated record from the course scenario. See the notice inside.

COPYRIGHT AND LEGAL NOTICES

© 2026 D2 Team CORP, a 501(c)(3) nonprofit. All rights reserved.

TLP:AMBER. Limited disclosure. Recipients may share this document only within their own organization and its clients, on a need-to-know basis, and only to the extent necessary to act on the information.

This document is part of the Full Spectrum Space Cybersecurity Professional program. It is provided to enrolled learners and to the credentialing bodies it is submitted to. Redistribution outside the cohort and those bodies is not authorized.

Verbatim sources. Every taxonomy definition in this document is the published METEORSTORM taxonomy text, quoted exactly. Definitions are never abbreviated, paraphrased, or reworded in this publication.

Trademarks. ethicallyHackingspace (eHs)® is a brand of D2 Team CORP, not a separate legal entity. Other names appearing in this document are the property of their respective owners and are used for identification only.

No warranty. This publication is provided for education. It is not legal, regulatory, or engineering advice for any specific system.

PUBLISHER	D2 Team CORP, a 501(c)(3) nonprofit
PROGRAM	Full Spectrum Space Cybersecurity Professional
DOCUMENT	Module 01 meeting minutes, Day 1, Concept of Operations
EDITION	Course reference copy · revised 2026-09-24
CONTACT	www.d2teamcorp.org

These minutes are simulated. Kestrel Orbital and the people in this room are the course's teaching scenario. Every identifier, target, and source in these pages is transcribed from the module inventories; nothing is invented platform data. The deliberation is dramatized so you can watch the judgment, not just the output.

What to take away. As you read, ask how this meeting would run in your real organization: who would chair it, which departments must be in the room, what your gate would be, what evidence would settle a dispute, and who would own each decision when the meeting ends. The record format itself, gate, decisions, register, actions, scope, carried forward, is the reusable part. The platform is the example; the meeting discipline is the lesson.

In the classroom. The room opens these minutes after the slides and reads Item 01, Scope of the first pass; Item 02, Why this framework, and not the one we already use; Item 07, The rules the enumeration has to obey, then the actions table: the rule, the objection, the decision and its owner, from the record rather than from the slide. Then the three questions on the judgment are asked.

Day 1, Concept of Operations · SCOR Minutes

HOW THE PLATFORM GOT ONE SHARED DESCRIPTION

This is the meeting where three departments stopped describing the platform three different ways. Nothing here is a technical breakthrough. It is a sequence of small rulings about names and boundaries, and every later function in the week depends on them holding.

FIELD	RECORD
Meeting	Day 1, Concept of Operations
Function	Function 01, Concept of Operations
Date	Monday 03 August 2026
Location	Reston mission-operations centre, conference room 2, and Kiruna on link
Chair	You, Lead, Space Cybersecurity Operations and Resilience (SCOR)
Present	Maya Reyes (Security Operations Center); Theo Lindgren (Satellite Operations Center); Dana Whitfield (Satellite Design and Engineering)
Purpose	Decompose the Kestrel Orbital telecommand path into named, parented elements that all three departments will use.
Output	44 enumerated elements with a complete parent chain.

The gate. An element enters the concept of operations only if it can be named in the form **LAYER:TAG:LABEL:ORDINAL** and can name its parent. If it cannot name a parent, it does not go in the model. This gate is what makes the later functions possible: a threat can only anchor to something that exists.

01 DECISIONS TAKEN

01 Scope of the first pass

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Opened by naming the constraint. Kestrel is flying. A full platform census would take months and the mandates do not wait. Asked each department what has to be enumerated first.

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Argued for a complete decomposition before anything else. Her position: a partial model produces a partial threat model, and we will be back here in a month.

Theo Lindgren · Senior Controller, Satellite Operations Center

Disagreed on operational grounds. The fleet is on orbit and the passes do not stop for a census. Whatever we enumerate has to be the part that would end the mission if it were taken.

Maya Reyes · Analyst Lead, Security Operations Center

Supported Theo with the regulatory read. Executive Order 14144 puts the command and control of an operational platform first. NIS2 puts a duty of care on the ground operator and starts a 24 hour clock on an incident. Both point at the same path.

RULING Enumerate the **telecommand path**, the command and control chain from operator console to on-board execution, as the first pass. Dana's objection is recorded and is not overruled on principle: the rest of the platform follows the same procedure when its turn comes. This is a scope choice, not a claim of completeness.

Owner. SCOR. Dana holds the backlog of what is not yet enumerated.

02 Why this framework, and not the one we already use

Maya Reyes · Analyst Lead, Security Operations Center

Said it plainly. She had not heard of METEORSTORM before this week, her analysts have used MITRE ATT&CK for years, and she wanted to know why the Security Operations Center should learn a second vocabulary to describe the same adversaries.

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Answered that ATT&CK is not being replaced and is not in competition with this. It stays. It describes what an adversary does, and it will keep feeding the attack paths, the threats and the resilience measures. What it was never designed to do is name a part of a space platform. It cannot tell you which element on Kestrel a technique lands on, because it does not know Kestrel exists.

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Tested that directly. Asked what ATT&CK would call the flight-software update path on a spacecraft in geostationary orbit. The room could describe the behavior an adversary would use against it and could not resolve it to one part of this platform.

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Made the second point, which decided it. The framework is not a product and adoption is not a purchase. The taxonomy is published openly as a MISP taxonomy, in `machinetag.json`, and Kestrel already runs MISP. Nothing new is procured, nothing new is stood up, and the analysts keep the tooling they have.

Maya Reyes · Analyst Lead, Security Operations Center

Withdrew the objection on that basis, and asked that the point be recorded so she does not have the argument again with every analyst who joins.

RULING METEORSTORM is adopted as the framework for describing the platform, **not as a replacement for MITRE ATT&CK**. ATT&CK, SPARTA, D3FEND, NIST and the rest keep contributing, normalized into the analytic layer. The structural layers do the thing none of them do: name Kestrel's own elements so a technique has somewhere to land. Because the taxonomy is published for MISP and MISP is already running, adoption is a change of vocabulary, not a change of platform. **Owner.** SCOR owns the taxonomy and the normalization. Security Operations Center keeps ATT&CK and keeps its tooling.

03 What happens when the company is not only a satellite operator

Theo Lindgren · Senior Controller, Satellite Operations Center

Brought what he had heard at the quarterly business review. Leadership is already discussing maritime expansion, deep space activity and an uncrewed aerial program. He asked the fair question: is this room about to standardize on a model that only describes satellites, and have to throw it away in eighteen months.

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Answered that this is precisely why METEORSTORM was selected rather than something written in-house for a satellite fleet. The environment layer already carries five environments and Kestrel is using two. Maritime is **PCE-AQ**, the aquatic environment, with an aquatic segment beneath it. An uncrewed aerial program is **PCE-AE**, the aerial environment, with low altitude, high altitude and near space already sitting beneath it as segments. Deep space is **PCE-DS**, with a deep space segment of its own. None of it has to be invented when the business commits.

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Asked the practical question. Does adding an environment later disturb what is enumerated today. It does not: a new environment is a new parent, ordinals are issued once and never renumbered, and every identifier written this week survives unchanged.

Maya Reyes · Analyst Lead, Security Operations Center

Added the sharing consequence. A maritime operator inside the Space ISAC exchange would read a Kestrel record in the same vocabulary, because it is the same published taxonomy, not a Kestrel dialect of it.

Theo Lindgren · Senior Controller, Satellite Operations Center

Accepted, and asked to be the one who flags a new operating environment the moment the business commits to it rather than after the first asset is bought.

RULING The framework is adopted for **the platform**, not for the satellite fleet alone. This pass enumerates two of the five environments the taxonomy carries; aquatic, aerial and deep space exist in the model and are unused. Expansion is enumeration into a tag that already exists, not a redesign, and nothing enumerated this week is discarded when it happens. **Owner.** SCOR owns the taxonomy. Satellite Operations flags a new operating environment when the business commits to one.

04 How many environments, and which

Maya Reyes · Analyst Lead, Security Operations Center

Proposed one orbital environment and one ground environment. Simple, and it matches how the SOC currently tags alerts.

Theo Lindgren · Senior Controller, Satellite Operations Center

Rejected it, twice over. Geostationary and medium Earth orbit are different operating regimes with different pass geometry, different link budgets and different failure behavior, and collapsing them hides a real difference from anyone reading the model later. The same argument applies on the ground: Reston is mission operations and the network operations centre, Kiruna is a polar telemetry, tracking and command station in a different jurisdiction, and treating them as one site would erase both the failover story and the legal one.

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Accepted the four but flagged a practical limit. Engineering has one set of space subsystem definitions this pass, not one per regime.

RULING Four environments: **PCE:OR:Orbital:00** (geostationary), **PCE:OR:Orbital:01** (medium Earth orbit), **PCE:TE:Terrestrial:00** (Reston) and **PCE:TE:Terrestrial:01** (Kiruna). Both orbit regimes are enumerated, and per Dana's limit **one space segment covers both this pass**. That is recorded on the decomposition figure as a scope note rather than left for a reader to infer.

Owner. Satellite Operations owns the environment definitions. SCOR owns the note that explains why the two regimes share one segment.

05 Where the radio link belongs

Theo Lindgren · Senior Controller, Satellite Operations Center

Put the question directly. The radio frequency link is not in orbit and it is not on the ground. It is the thing between them.

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Wanted it filed under the space segment, because engineering owns the waveform.

Maya Reyes · Analyst Lead, Security Operations Center

Objected. If the link is filed under space, every ground-side interference event arrives with the wrong owner and sits in a queue nobody reads.

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Ruled that the model must be able to say a thing belongs to more than one environment, because this one genuinely does. Anything else is a convenient lie that the first real incident will expose.

RULING **SEG:LI:Link:00** names three environment parents: both orbit regimes and the Reston site. It is the only element in the first pass that spans environment *types*, so on every figure it is drawn **outside the environment boundaries and joined to each one by a dotted tie**. Containment is reserved for elements that sit in exactly one place.

Owner. Shared. Satellite Design and Engineering owns the waveform, Satellite Operations owns the link procedure, and neither owns it alone.

06 One ground segment or two

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Proposed a single ground segment covering both sites, on the grounds that they run the same software baseline.

Theo Lindgren · Senior Controller, Satellite Operations Center

Rejected it. Kiruna has its own radio frequency ground terminal that Reston does not have, and Reston has the mission operations console and the patch pipeline that Kiruna does not. Same baseline is not the same enclave.

Maya Reyes · Analyst Lead, Security Operations Center

Added the incident-handling argument. If the two sites share one identifier, no detection can say which site was touched.

RULING Two ground segments, one per site. **SEG:GR:Ground:00** is the Reston mission-operations enclave and **SEG:GR:Ground:01** is the Kiruna telemetry, tracking and command enclave. Because the enumeration distinguishes the two sites, each site keeps its own environment boundary on the figure rather than sharing one.

Owner. Satellite Operations, with Satellite Design and Engineering confirming the service split per site.

07 The rules the enumeration has to obey

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Set the structural rules before any element was written, so that no one could argue for an exception later.

Maya Reyes · Analyst Lead, Security Operations Center

Asked for one rule in particular: nothing may exist in the model without a parent. Her reason was operational. An alert on an element with no parent cannot be escalated, because nobody owns it.

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Asked that ordinals never be reused or renumbered, because engineering documents will cite them and a renumber invalidates every citation.

RULING An asset belongs to one or more services, naming every service it carries. A service belongs to one or more segments. A segment belongs to one or more environments. Walking upward from any element always reaches an environment, so there are **no orphans**. Ordinals are issued once and never renumbered; an ordinal issued once is never renumbered, so a gap in a sequence marks an element the register tracks outside this scope.

Owner. SCOR owns the rules. The generator enforces them and refuses to publish a figure that breaks one.

08 How deep the first pass goes, and where it stops

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Put the depth question on the record before the census was read back, so that nobody could later mistake a scope choice for a claim of completeness.

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Was direct about what engineering can stand behind by the end of today. Environments and segments can be enumerated completely for the telecommand path, because there are few of them and their boundaries are settled. Services and assets cannot. Not because they are unknown, but because confirming each one against the as-built drawings is days of work she does not have this week, and an unconfirmed asset in the model is worse than an absent one.

Theo Lindgren · Senior Controller, Satellite Operations Center

Agreed and put it operationally. He would rather hold a short list of services he can vouch for on a live pass than a long list nobody has checked.

Maya Reyes · Analyst Lead, Security Operations Center

Accepted on one condition: that it is stated on the artifact rather than left to be discovered. If a reader takes this for the complete command path, the first audit that finds a gap treats the entire model as unreliable, and the vocabulary loses the credibility it needs to spread.

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Ruled it stated, and stated in a way a reader can verify. The environment and segment ordinals run unbroken. The service and asset ordinals do not, and those gaps are the register holding elements this pass did not reach.

RULING The environment and segment layers are **complete for the telecommand path** and carry no ordinal gaps. The service and asset layers are a **deliberate first tranche**, sized to prove that three departments will adopt one vocabulary, not to exhaust the path. Gaps in the service and asset ordinals mark elements the register tracks outside this pass. Extending them later adds children under parents that already exist and rennumbers nothing, so this is a starting point that grows rather than a draft that gets rebuilt.

Owner. SCOR states the depth on every Day 1 surface. Satellite Design and Engineering owns the backlog of services and assets not yet confirmed.

09 The count, and what it is not

You · Lead, Space Cybersecurity Operations and Resilience (SCOR)

Closed by reading the census back so that all three departments were agreeing to the same number.

Maya Reyes · Analyst Lead, Security Operations Center

Confirmed the SOC will tag against these identifiers and no others.

Theo Lindgren · Senior Controller, Satellite Operations Center

Confirmed Satellite Operations recognizes every element as something a controller would name in a pass.

Dana Whitfield · Systems Engineer, Satellite Design and Engineering

Confirmed each service and asset maps to something engineering can point at in a drawing.

RULING The Day 1 concept of operations is **44 elements: 4 environments, 4 segments, 15 services and 21 assets**. All three departments now describe the telecommand path with one set of names.

Owner. SCOR publishes and holds the inventory. Any change goes through SCOR and is regenerated, never hand edited.

02 DECISION REGISTER

DECISION	RESULT	RECORDED AS
Scope of the first pass	Telecommand path only	Scope note on every Day 1 surface
Framework selection	METEORSTORM adopted; MITRE ATT&CK retained and normalized into the analytic layer	Published MISP taxonomy, machinetag.json
Future operating environments	Aquatic, aerial and deep space already exist in the taxonomy, unused this pass	PCE-AQ, PCE-AE, PCE-DS
Depth of the first pass	Environments and segments complete; services and assets a first tranche	Unbroken PCE and SEG ordinals; gaps in SVC and AST
Environments	4, two orbit regimes and two ground sites	PCE:OR:00/01, PCE:TE:00/01
Space segment	One segment covers both orbit regimes this pass	SEG:SP:Space:00, two environment parents
Radio link	Spans orbit and ground, drawn outside both, tied to each	SEG:LI:Link:00, three environment parents
Ground segments	Two, one per site	SEG:GR:Ground:00, SEG:GR:Ground:01
Structural rules	No orphans; an asset names every service it carries; ordinals never renumbered	Enforced by the figure generator
Census	44 elements	4 PCE + 4 SEG + 15 SVC + 21 AST

03 ACTIONS

ACTION	OWNER	DUE
Publish the enumerated reference so all three departments cite one list	SCOR	Day 2, before the threat meeting
Record the backlog of platform areas not yet enumerated	Satellite Design and Engineering	Rolling
Re-tag the alert pipeline against the enumerated identifiers	Security Operations Center	End of week one
Confirm each service and asset against the as-built drawings	Satellite Design and Engineering	Day 3

Scope note. This is a first pass on one platform, run under a real time constraint, and it covers the telecommand path only. It is not a complete model of Kestrel Orbital. The payload chain, the launch-phase systems and the wider corporate estate are not enumerated here. Within the path itself the pass is deeper at the top than at the bottom: the environment and segment layers are complete and their ordinals run unbroken, while the service and asset layers are a first tranche sized to prove adoption, which is why their ordinals carry gaps. Two of the taxonomy's five environments are in use; aquatic, aerial and deep space exist in the model against the day the business commits to them. All of it follows the same procedure when its turn comes, and because ordinals are issued once, extending the model rennumbers nothing. The limits above are choices the room made on the record, not omissions.

04 CARRIED FORWARD

Function 02 cannot invent a target. Every threat raised tomorrow has to name one of these 44 elements as its Target of Exploitation, or it does not enter the catalogue.