NAVIGATION & SIGNALING SERIES · NAV-06

NAV-06 — Navigation Using a GPS

GPS is the Primary. Map and compass is the Emergency.

A practitioner's course in operating a handheld or phone receiver as one leg of a navigation plan — and in knowing when to stop believing it.

BOTTOM LINE UP FRONT

NAV-06 trains a handheld or phone GPS as one leg of a navigation plan, not as a replacement for the map. It covers what is overhead, the settings that decide whether a coordinate means anything, and the procedure for verifying a fix against the ground before acting on it.

It is not a device manual and not a substitute for map and compass. Procedures are taught as concepts rather than menu paths, so the course does not expire when a model does.

WHY THIS MATTERS

A wrong fix looks exactly like a right one.

A datum set once and never checked moves a correct coordinate by tens to hundreds of meters. A signal reflected off a rock face arrives strong, clean and late. A coordinate read in one format and entered in another plots onto plausible ground. None of these announce themselves, and each produces a confident position on a healthy-looking screen.

The device is faster and more precise than a paper map, right up until it is neither — and a member who cannot check a fix against terrain has no way of knowing which situation they are in.

COURSE LESSONS

1	**What GPS Is, and How It Fails**	How a fix is computed, why the accuracy figure is only an estimate, and where the device sits in a PACE plan.
2	**The Constellations Above You**	The four global systems, multi-system versus multi-frequency, and the SBAS setting nobody decides about.
3	**Device Selection and Configuration**	Handheld, phone or watch, then the settings that decide whether a coordinate means anything.
4	**Core Operations**	Entering a written position without corrupting it, navigating to it, and recording one worth keeping.
5	**Routes, Tracks, and Retracing Your Path**	Route building from map recon, planning on a computer, naming conventions, and the limits of retracing.
6	**Integrating GPS With Map and Compass**	The core of the course: verifying against terrain, and the rule for when device and ground disagree.
7	**Reporting a Position**	Precision as a claim, the four-step radio sequence, and the medical evacuation case.
8	**Device Security and Emissions Control**	What the device keeps and sends, sanitizing before and after movement, and emissions postures.
9	**Degraded, Denied, and Dead**	Recognizing a false fix from the user side, offline mapping, and stepping down without halting.
10	**Group Standard and Field Exercise**	Publishing a standard so positions are portable, then a capstone that tests it on the ground.

PREREQUISITES

NAV-01 Grid Coordinates and Military Map Reading, and NAV-02 Map and Compass Land Navigation. Both are assumed and neither is reteaught.

DOCTRINAL SOURCES

Military	FM 3-25.26 and GTA 05-02-013 (US Army); MCWP 3-11.3 and MCCS 18-01 (US Marine Corps)
Civilian	Finding Your Way with Map and Compass (USGS); Garmin GPSMAP 65/65s and eTrex 22x/32x manuals