POWER USAGE APP

ENHANCED FEATURE AVAILABLE WITH GALVION'S NERV CENTR POWER & DATA HUB (PDH-2)

The Nerv Centr **POWER USAGE APP** is an integrated capability for the Galvion Power & Data Hub (PDH-2) that helps operators and tactical leaders monitor and manage their mission power demands in real time. It also lets them plan for more efficient and agile future missions by knowing how many batteries are required to complete the tasks. Every battery, charger and cable that can be eliminated from physical load because of data gathered, analyzed, and modeled means a more successful mission.
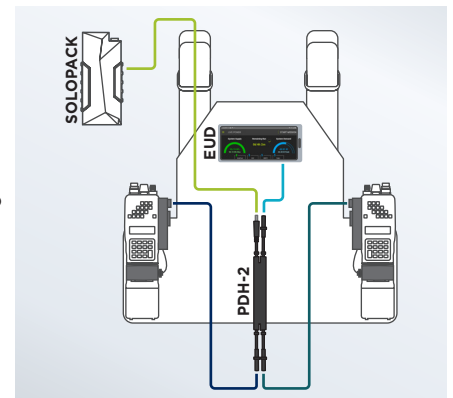

Android and ATAK compatible

KEY FEATURES

- Displays **LIVE POWER** per port, providing data on peaks, averages, and power use.
  - The app detects what device is plugged in and adjust ports and options accordingly.
  - A PDH-2 hub port can be disabled from the app; this feature provides assurance that no phantom power is drawn by a device.

- View **POWER ANALYSIS** by mission or date for detailed understanding of power usage.
  - View aggregated data over time-period or mission duration.
  - View prior data as time-based charts to analyze correlation across devices.
  - Import power logs from devices post-mission if EUD was not used.
  - Simplified access to system info

- Use **POWER MODELING** to predict power needs and choose battery types based on mission parameters.
  - Collects power logs as user-defined missions
  - Plan quantity/types of batteries needed
  - Estimates remaining run time based on attached power and devices.

COMPATIBILITY

- Compatible with the latest Samsung® and Samsung® Tactical Edition devices
- Any device operating on Android Version 8.0 or higher OS can use the app.
- Available as an ATAK Plug-In* and stand-alone Android application.

Download at **NERV CENTR® APPS ON GOOGLE PLAY**

Contact Sales Support for the latest set of compatible ATAK versions

LIVE POWER

SYSTEM SUPPLY
Total battery capacity and current battery level of SMBus battery

ESTIMATED REMAINING RUN TIME
Customize Low Power Alert setting to suit mission needs

START / STOP MISSION
- Collect data as named sets to simplify analysis
- Export data to analyze offline
 - Transfer device power profiles to another device

57 minutes ⚠

12:39
☰ LIVE POWER   START MISSION
System Supply   Remaining Run   System Demand
                    0d 4h 2m
98.10 Wh   45.91 W
98.10 Wh Max   46.38 W Peak
SoloPack   EUD   MBITR   Radio
24.24 W   -0.11 W -22.69 W -22.69 W
BATT   EUD   PAN1   PAN2

Port MPP
Voltmeter
15.292 V
15.247 V Peak
Port Details   Close

VOLTMETER
Live voltmeter on Power port to assist when positioning solar blanket – voltage increases as solar blanket is better angled towards sun
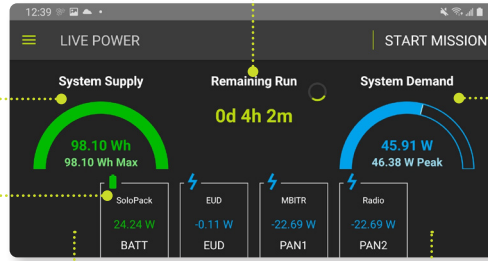
PORT INFORMATION
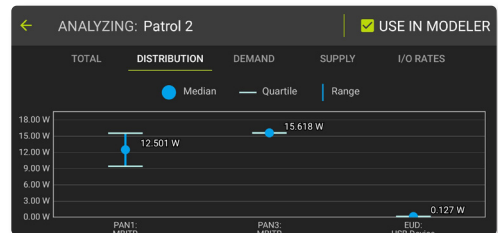Tap on individual port for more detailed information

SYSTEM DEMAND
Combined average and peak power usage of all connected devices

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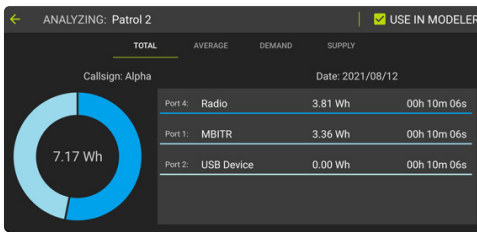# ANALYZE POWER

Manage mission data (data sets organized by date and name)

☰ ANALYZE MISSION   START MISSION

	Mission	Callsign	Date ↓	Delete
☑	Patrol 2	Alpha	2021/08/12 04:01 - 04:11	🗑
☑	Recon	Alpha	2021/08/10 11:58 - 15:04	🗑
☑	Patrol 1	Alpha	2021/08/10 11:54 - 11:58	🗑

Analyze range of power usage by device (bars show quartiles)

← ANALYZING: Patrol 2   ☑ USE IN MODELER

TOTAL **DISTRIBUTION** DEMAND SUPPLY I/O RATES

● Median — Quartile | Range

18.00 W
15.00 W   15.618 W
12.00 W   12.501 W
9.00 W
6.00 W
3.00 W   0.127 W
0.00 W
PAN1:   PAN3:   EUD:
MBITR   MBITR   USB Device

Analyze total power usage by device

← ANALYZING: Patrol 2   ☑ USE IN MODELER

TOTAL AVERAGE DEMAND SUPPLY

Callsign: Alpha   Date: 2021/08/12

7.17 Wh

Port 4:	Radio	3.81 Wh	00h 10m 06s
Port 1:	MBITR	3.36 Wh	00h 10m 06s
Port 2:	USB Device	0.00 Wh	00h 10m 06s

Analyze power supply over time, including charge cycles

← ANALYZING: Patrol 2   ☑ USE IN MODELER

TOTAL AVERAGE **DEMAND** SUPPLY

08/12 04:01:19 - 08/12 04:06:31

MBITR ▾   ◉ Total Demand ○ Average Demand   Supply

400 Wh
300 Wh
200 Wh
100 Wh
04:00 04:01 04:02 04:04 04:05 04:06 04:07
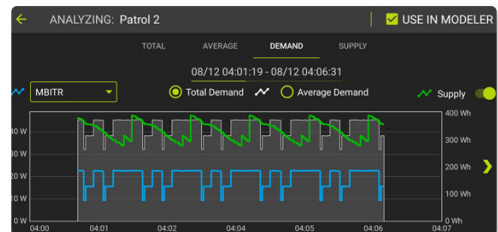
Option to include Mission data in Modeler predictions of future power needs

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POWER MODELER

Model kit devices and supplies to estimate runtime

☰ POWER MODELER   ◉ Runtime ○ Needed Supply

Devices (3/5) +   Supply +   Runtime

Radio 22.651 ± 0.012 W	Galvion SoloPack 98.87 Wh	∧ High 0d 2h 10m
MBITR 22.651 ± 0.012 W		~ Typical 0d 2h 10m
Galvion Hub		∨ Low 0d 2h 10m

45.712 ± 0.024 W   98.87 Wh
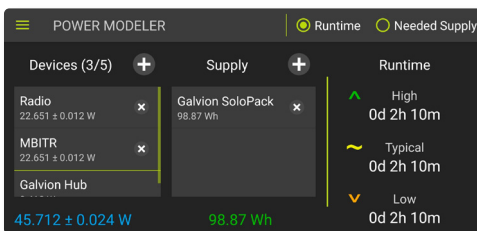
Model kit devices and runtime to estimate supplies needed

☰ POWER MODELER   ○ Runtime ◉ Needed Supply

Devices (3/5) +   Runtime   Supply +

Radio 22.651 ± 0.012 W	Days − 0 +	Galvion SoloPack 98.87 Wh
MBITR 22.651 ± 0.012 W	Hours − 2 +	
Galvion Hub		

45.712 ± 0.024 W   98.87 / 91.42 Wh

GALVION™