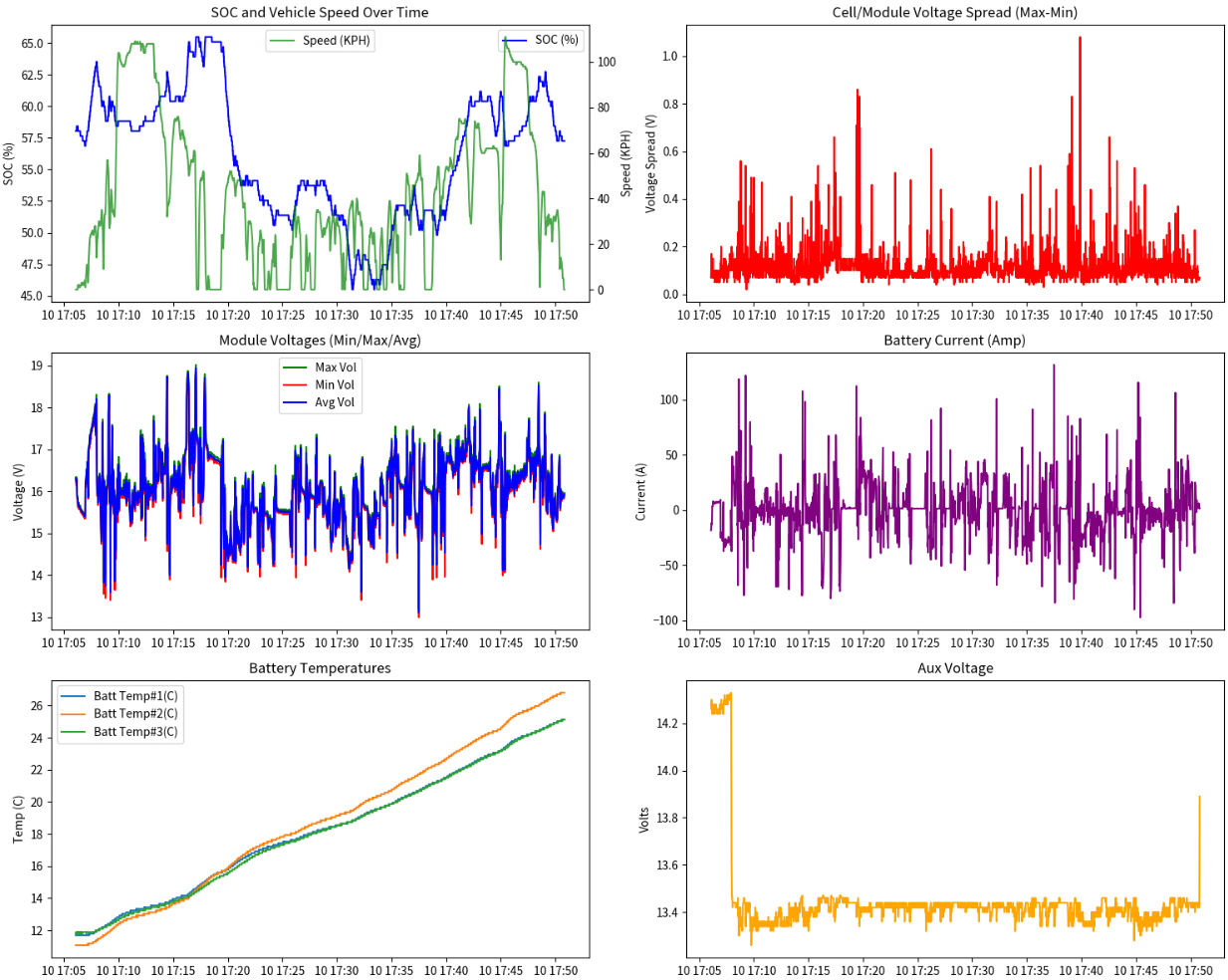

Excellent first road test results after servicing and balancing! Your old Prius C pack is performing very well. Here's a clear breakdown based on the full 2,793-row log (≈45 minutes of driving, 17:06–17:50 on 10 Apr 2026).

1. Voltage Balance – Outstanding

- **Average module voltage spread** (max – min across the 10 monitored modules): **0.12 V**
- **During actual driving** (speed > 0 km/h): still only **0.12 V** average spread
- **Worst-case spread**: 1.08 V (one brief spike at 17:39:53 when SOC ≈ 51 %)

For a refurbished NiMH Prius C pack, **0.12 V average spread is excellent**. Pre-balancing packs often run 0.3–0.8 V+ spreads. The servicing and balancing clearly worked — modules are staying tightly matched even under load, regen, and varying speeds up to 111 km/h.

2. SOC Behavior – Normal & Healthy Hybrid Operation

- SOC ranged **45.5 % – 65.5 %** (mean ≈ 56 %)
- Typical Prius C "sweet spot" — the BMS never let it go too low or too high, exactly as designed.
- Delta SOC stayed near zero most of the time (small fluctuations with current), no sudden drops that would indicate a weak module.

3. Current & Power Delivery

- Discharge peaks: up to **+131 A** (strong acceleration)
- Regen/charge peaks: down to **–97 A** (braking)
- Charge/Discharge limits stayed at the expected ~18–19 HP (≈ 13–14 kW) most of the time — the pack is delivering full available power without the BMS throttling it.

4. Temperatures – Cool & Stable

- All three sensors: **11–26 °C** range (mean ≈ 18 °C)
- Very modest rise even with spirited driving and highway speeds — no hot spots or cooling issues.

5. Internal Resistance (IR)

- All 10 modules stayed extremely consistent at **≈ 19** (likely mΩ) for almost the entire log.
- Minor shifts to 20–22 appeared only at the very end (possibly measurement mode change or slight temperature effect). No module stands out as high-resistance/weak.

6. What the Brief 1.08 V Spread Spike at 17:39:53 Means

This was the only real outlier in the entire drive. It coincided with a period of changing load (you can see the current and speed traces in the plots). The spread dropped back to < 0.2 V within seconds afterward — classic transient behavior, **not** a sign of imbalance or failure. The balancing you did is holding up beautifully under real-world stress.

Overall Verdict

✅ **Pack is healthy and well-balanced post-service.**

✅ Voltage matching is now class-leading for a Prius C NiMH pack.

✅ No weak modules, no excessive IR, no thermal issues.

✅ Ready for daily driving — you should see improved fuel economy, smoother EV/hybrid transitions, and fewer “battery” warning lights.

If you want deeper dives (e.g., which specific module was the lowest voltage at any moment, zoom-in on the 17:39 spike, or comparison to a previous log), just upload the older file or let me know what to plot next. Great work on the servicing — this log looks like a success! 🚗🔋