

Single-flight evidence report

Fuel use, measured. Predictions, checked.

iniBuilds A350-1000 v1.2.7
Prague (LKPR) to Sint Maarten (TNCM)

64,521 kg Recorded airborne fuel use	+3,787 kg Above the SimBrief trip plan	+6.23% Whole-flight burn difference
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Finding. This completed flight consumed 64,520.70 kg between the first recorded airborne sample and the first landing contact. The zero-bias SimBrief trip plan was 60,734 kg. The resulting difference is +3,786.70 kg, or +6.2349%. This is measured fuel depletion, not a comparison of two arrival predictions. [1-3]

Fuel accounting	SimBrief plan	Recorded
Fuel at takeoff	79,752 kg	79,943.55 kg
Airborne fuel used	60,734 kg	64,520.70 kg
Fuel at touchdown	19,018 kg	15,422.85 kg

The result is not a uniform 6% cruise penalty

The 48N020W to 44N030W leg used **13.92% more fuel** over almost the same elapsed time. The 40N040W to 35N045W leg used **1.47% less**. After the planned TOD position, a further **804 kg** of the whole-flight excess accumulated. Different vertical profiles make that final section unsuitable as an isolated engine-efficiency test. [1,2]

What this evidence establishes

A measurable discrepancy against this dispatch plan on one v1.2.7 flight. It does **not** isolate the cause, establish a fleet-wide correction, or prove a regression against v1.2.6. No controlled previous-version flight is included.

Flight CY4012 | MSFS 2024 | 24 October 2026 | Flight/data: Rudolf Klusal
Prepared for the iniBuilds forum thread *1.2.7 Fuel Flow Increased Significantly*. Full 38-row comparison and the original CSV are included.

01 / DATA AND METHODOLOGY

A completed flight, not a forecast

The raw recorder data and archived dispatch data provide the primary evidence. **FOB** means fuel on board; **EFOB** is the predicted fuel remaining at a future point. The screenshot supplies a time-specific FMS prediction. [1-4]

Test context	Source-supported detail
Aircraft / platform	A350-1000 (Default Cabin); Microsoft Flight Simulator 2024
Aircraft version	1.2.7, identified by the pilot; not independently stored in the telemetry
Flight / dispatch	CY4012, LKPR runway 24 to TNCM runway 10; D-ACYA
Planning settings	CI 200; fuel bias P00.0; planned cruise Mach 0.85
Planned level changes	FL340 initially; FL360 at 44N030W; FL380 at 40N040W
Mass / load	Planned ZFW 185,368 kg; block fuel 80,352 kg
Takeoff / touchdown UTC	11:03:17.907 / 20:20:11.825 on 24 October 2026
Airborne elapsed time	Recorded 09:16:53; planned 09:30:21; about 13 min 28 s shorter
Horizontal track length	Recorded 4,183.8 NM; plan 4,175 NM; difference about +0.21%

How the comparison was calculated

Endpoints. Takeoff is the first on_ground: false sample; touchdown is the first subsequent on_ground: true sample. There is one airborne interval. Fuel used equals takeoff FOB minus touchdown FOB, excluding preflight refuelling and taxi fuel. This is a liftoff-to-first-contact interval: takeoff-roll fuel before liftoff is also outside it. [1]

Waypoint matching. For each dispatch fix, the nearest recorded airborne GPS sample is selected using great-circle distance. No planned passage time is used to locate the aircraft. Appendix A reports the match distance so less exact intercepts remain visible. TOC and TOD are **planned geographical positions**, not detected actual phase transitions. [1,2,5]

Plan precision. Kilogram-resolution values and elapsed seconds come from the archived simbrief.json. The printed OFP uses coarser waypoint figures; some differ by roughly 0.1 t. End-point totals agree. The JSON is used consistently for segment arithmetic rather than mixing its values with the printed figures. [2,3]

Time base. Elapsed-time calculations use the recorder's monotonic clock. UTC timestamps differ from that elapsed duration by about 1.2 seconds over the flight. Whole seconds in Appendix A retain the original CSV rounding.

Recorded build string: 12.2.282174.999 / SimConnect 12.2.0.0. This is not treated as proof of a particular MSFS Sim Update version. [1]

02 / FUEL ALONG THE ROUTE

Where the discrepancy accumulated

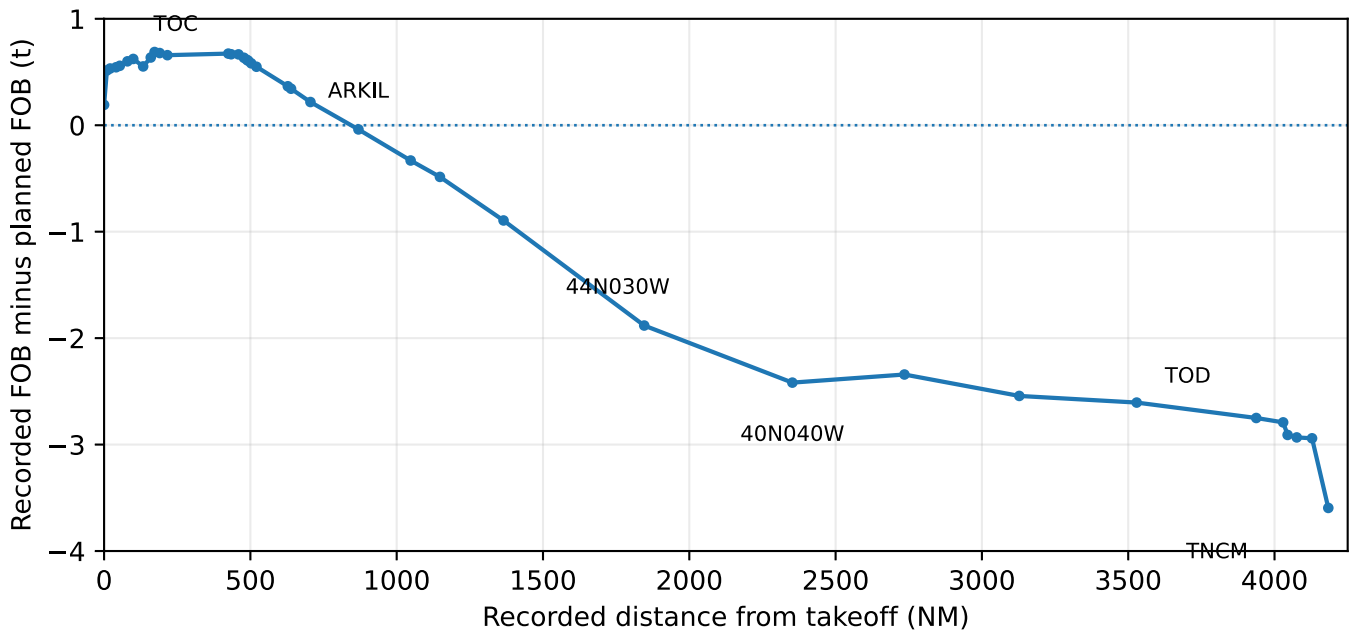


Figure 1. Recorded FOB minus planned FOB at matched positions. Negative values mean less fuel remains than the dispatch plan expected. Lines connect sampled fixes; the curve is not a continuously measured FMS EFOB series. [1,2]

Matched position	Planned FOB	Recorded FOB	FOB difference
Takeoff	79,752	79,944	+192
Planned TOC position	74,200	74,888	+688
ARKIL	62,882	62,843	-39
44N030W	47,728	45,846	-1,882
40N040W	40,588	38,170	-2,418
Planned TOD position	19,998	17,207	-2,791
Touchdown	19,018	15,423	-3,595

All table figures are kg, rounded. The complete 38-position series appears in Appendix A.

Why the landing shortfall is not the trip-fuel excess

The aircraft took off with **191.55 kg more fuel** than the plan. At touchdown it had **3,595.15 kg less**. Correcting for the unequal starting quantities gives the actual excess fuel used:

Excess burn = 191.55 - (-3,595.15) = 3,786.70 kg

At the planned TOD position, cumulative excess use was **2,982.91 kg**, about **4.99%** of the planned fuel use to that position. The remaining **803.80 kg**, or **21.2%** of the whole-flight excess, accumulated from there to touchdown. [1,2]

03 / LEG-BY-LEG RESULTS

Burn differences are phase-dependent

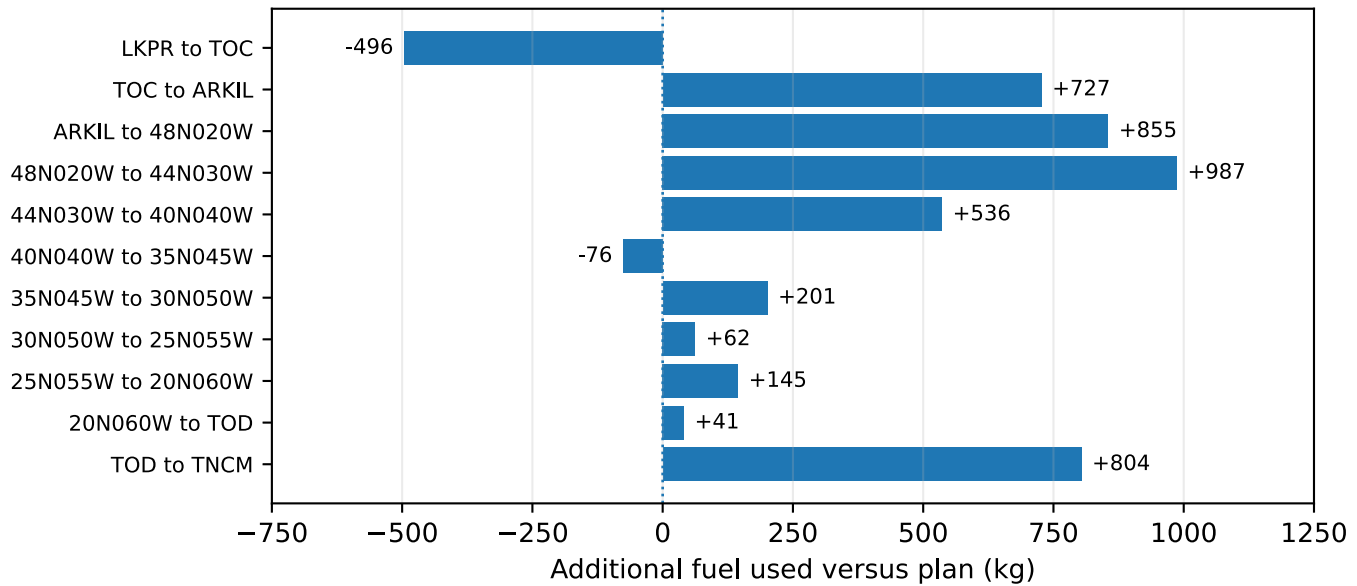


Figure 2. Additional fuel depletion over each matched-position segment. Negative means less fuel used than planned. Each leg is compared between the same geographic reference points, apart from takeoff/touchdown endpoints. [1,2]

Segment	Plan kg	Recorded kg	Burn delta	Plan / actual min
LKPR to TOC	5,552	5,056	-8.94%	26.93 / 25.03
TOC to ARKIL	11,318	12,045	+6.43%	99.80 / 97.09
ARKIL to 48N020W	8,064	8,919	+10.61%	72.15 / 69.90
48N020W to 44N030W	7,090	8,077	+13.92%	64.27 / 63.79
44N030W to 40N040W	7,140	7,676	+7.51%	66.37 / 65.41
40N040W to 35N045W	5,191	5,115	-1.47%	50.52 / 50.02
35N045W to 30N050W	4,816	5,017	+4.18%	48.72 / 49.93
30N050W to 25N055W	4,736	4,798	+1.32%	48.30 / 48.29
25N055W to 20N060W	4,766	4,911	+3.04%	49.17 / 49.62
20N060W to TOD	1,081	1,122	+3.80%	11.23 / 11.32
TOD to TNCM	980	1,784	+82.02%	32.90 / 26.49

A closer look: 48N020W to 44N030W

Planned: **7,090 kg in 64.27 min.** Recorded: **8,077.06 kg in 63.79 min.** That is **+987.06 kg**, or **+13.92%** in segment burn. Dividing by each segment's own duration gives **6,619 versus 7,597 kg/h**, or **+14.78%** in average fuel-depletion rate. [1,2]

The recorder has no per-engine fuel-flow channel. These rates are derived from the aircraft's total fuel decrease, not instantaneous engine FF measurements. Similar segment durations do not control weight, pressure altitude, temperature, RTA intervention or all configuration differences.

04 / IN-FLIGHT PREDICTION CHECK

The FMS fuel forecast was optimistic

At 18:49:02 UTC the cockpit screenshot showed 16.9 t EFOB at TNCM, an ETA of 20:20 and 677 NM remaining. The nearest telemetry sample independently confirms the current FOB. [1,4]



Figure 3. Crops of the pilot's original 18:49 screenshot. The upper aircraft status strip shows 23,600 kg FOB; both FMS destination fields show 16.9 t. The crop is resized but the displayed data are not edited. [4]

Quantity	Value
Screenshot current FOB	23,600 kg (displayed)
Nearest telemetry sample, 18:49:01.854 UTC	23,608.02 kg
FMS destination EFOB at the snapshot	16,900 kg
Recorded touchdown FOB	15,422.85 kg
FMS landing-fuel prediction minus actual	Approximately +1,477 kg
Implied remaining burn / observed remaining burn	About 6,708 kg / 8,185 kg

Observed remaining burn was **about 22% above** the snapshot's implied remaining burn. This is a **remaining-leg prediction error**, not a 22% whole-flight fuel penalty. The FMS ETA of 20:20 agreed with touchdown at 20:20:11 to the displayed minute. FMS EFOB is shown to 0.1 t, so these forecast-error figures are approximate. [1,4]

A prediction miss is not a diagnosis

The snapshot is a real forecast at one moment. The archive does not preserve later FMS predictions, route edits, RTA changes or the complete intended descent profile. Those omissions prevent attributing the full 1,477 kg miss solely to the FMS performance model.

05 / INTERPRETATION

The vertical profile matters

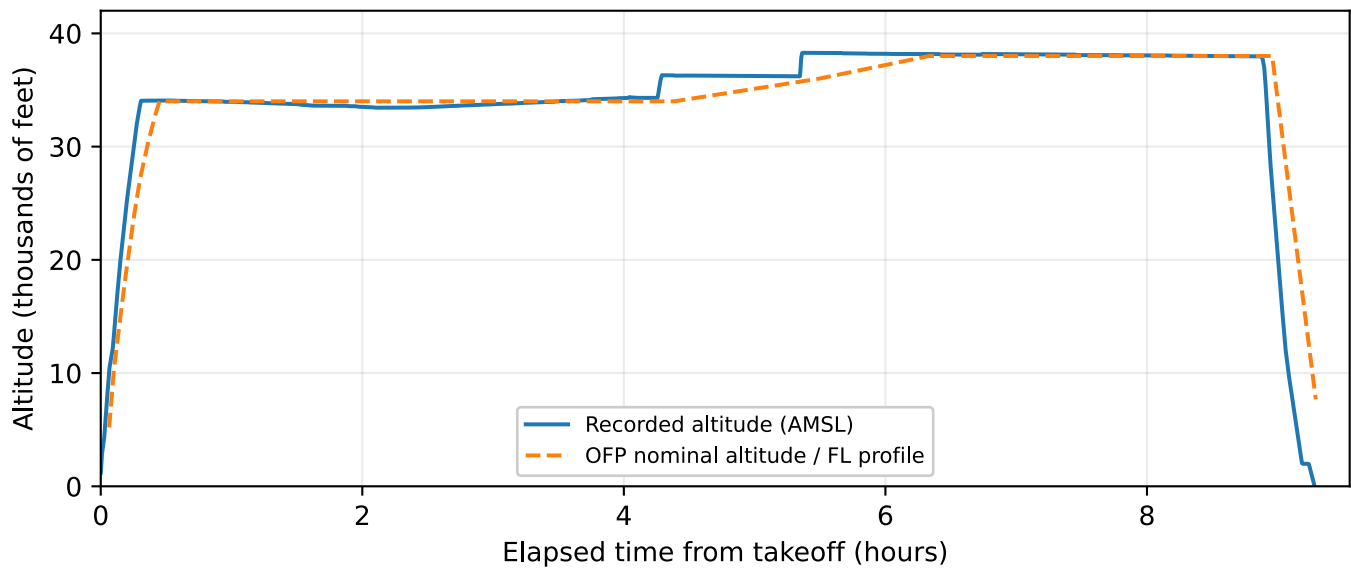


Figure 4. Broad vertical-profile comparison using each series' own elapsed time. Recorded altitude is AMSL; the OFP profile includes nominal flight-level targets. This is context, **not a flight-level tracking-error plot**. [1,2]

Do not read the altitude columns as an autopilot error

The archived plan calls for FL340, then FL360 at 44N030W and FL380 at 40N040W. The recording shows staged climbs, but it does not contain pressure altitude, selected altitude or standard-pressure flight level. Exact compliance with the planned flight levels cannot be established by subtracting the two altitude columns. [1-3]

The final segment is not a like-for-like descent test

At the planned TOD position the recorder still shows about 37,979 ft AMSL. At OBIKE it remains about 37,971 ft, while the plan is already descending and lists 33,400 ft. From the planned TOD position to touchdown, the plan uses **980 kg** and the recording uses **1,783.80 kg**. This section includes a different vertical profile and the approach, so its +82% segment-burn difference should not be described as an 82% cruise-engine penalty. [1,2]

What the +6.23% ratio means for fuel-factor discussion

For this flight only, recorded trip burn divided by planned trip fuel is **1.06235**. A simple +6% scaling of the existing trip figure gives 64,378 kg, close to 64,521 kg recorded. That makes roughly **P06 an empirical starting hypothesis**, not a validated all-route setting or an iniBuilds recommendation.

The pilot reports testing RTA, step climbs and F-PLN changes during the flight. Their timings are not recorded as FMS events. A repeatable calibration should therefore use completed flights with matched loading, cruise policy and route, and should separate cruise behavior from approach/profile differences. [1,4]

Support conclusion

The data warrant investigation of the plan-versus-simulation fuel discrepancy, particularly on the early oceanic legs. They do not identify which share comes from the simulated aircraft, the dispatch profile, weather differences or operational changes.

06 / PROVENANCE AND LIMITATIONS

Evidence that can be checked

Data-quality check	Result
Recorded samples	36,268 for the session; 33,072 from first airborne sample through contact
Sampling continuity	Largest recorded gap about 1.63 s; no in-flight discontinuity marker
Simulation rate	All recorded airborne values are 1.0x
Fuel continuity	No missing airborne fuel values; no positive airborne fuel increments
Mass cross-check	Median (total mass minus fuel) is about 185,367.6 kg; plan ZFW 185,368 kg
Recorder completion	Session closed; completion marked true; recorder warnings empty

An empty recorder-warning list and a continuous track are not WASM crash diagnostics. Aircraft version and the reported successful operation are pilot-provided context. This dataset contains no frame-time log, per-engine FF, thrust setting, Mach history, pressure altitude, temperature history or complete FMS action log. [1]

Source register

- [1] **Raw flight archive.** LKPR TNCM A350 1.2.7.zip: samples.jsonl, session.json and completion.json. Aircraft-level telemetry supplies the actual fuel, GPS, mass and elapsed-time evidence. The autogenerated postflight PDF was consulted but is not the arithmetic source.
- [2] **Archived SimBrief JSON.** simbrief.json in the same ZIP, fetched at 10:34:08 UTC on 24 October 2026. Supplies precise waypoint coordinates, seconds, fuel and plan totals. Two TNCM entries exist; the final destination summary (19,018 kg) is used, not the 18,979 kg approach entry.
- [3] **Original OFP.** simbrief-ofp(3).pdf, 67 pages, CY4012, OFP 1, release 10:32 UTC on 24 October 2026. Page 1: fuel, CI and FL steps; pages 4-7: navigation log. The 60,734 kg trip and 79,752 kg takeoff totals agree with [2].
- [4] **Cockpit screenshot and pilot account.** image(20261024-184906).png; cockpit clock 18:49:02 UTC. Source of the FMS EFOB/ETA check. RTA and F-PLN testing are pilot-reported, not reconstructable from the telemetry.
- [5] **Published comparison CSV.** A350_1.2.7_LKPR_TNCM_fuel_comparison.csv. All 38 rows and all 11 columns are reproduced on the next two landscape pages. The original, byte-for-byte CSV is also embedded as a PDF attachment; compatible desktop viewers can save it from their Attachments pane.

Verification and publication links

The CSV fuel values match a fresh nearest-position calculation within 0.5 kg rounding. Match distances agree within 0.0005 NM. Segment calculations in this report use unrounded telemetry. Appendix A preserves the original exported values.

Archive SHA-256
13635800d1f9f0c440dbdc3b5e99dd20
d09af97eb3ff72edee666537152a5a8c

CSV SHA-256
77b4e5e06f28f20fdfe1590b1a5d60a3
8c84caed8e47d7481b3e79ae44f913f3

[iniBuilds support thread](#) (publication destination, not evidence for other users' results) | [Flight gallery](#)

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Waypoint fuel and timing comparison

Exact exported values, reformatted for this document. Fuel differences are actual minus plan, not corrected for the initial +192 kg. Negative time differences mean an earlier passage relative to takeoff. [5]

Segment	Waypoint	Plan elapsed HH:MM:SS	Actual elapsed HH:MM:SS	Time delta min	Plan FOB kg	Actual FOB kg	Actual - plan kg	Plan altitude ft *	Recorded ft AMSL *	Match NM **
takeoff	LKPR	00:00:00	00:00:00	0	79,752	79,944	+192			0.000
waypoint	PR402	00:03:52	00:02:43	-1.15	78,643	79,158	+515	5,200	7,223	0.804
waypoint	PR405	00:06:05	00:04:58	-1.12	78,028	78,561	+533	10,400	11,563	1.099
waypoint	BALTU	00:09:41	00:08:13	-1.47	77,192	77,737	+545	16,000	18,350	0.094
waypoint	DONAD	00:11:38	00:10:03	-1.59	76,759	77,317	+558	18,900	21,823	0.191
waypoint	RAPET	00:15:17	00:13:30	-1.79	76,012	76,612	+600	23,900	27,463	0.158
waypoint	UNAVI	00:17:59	00:15:58	-2.01	75,534	76,157	+623	27,100	31,207	0.030
waypoint	KODUK	00:21:53	00:20:13	-1.67	74,958	75,511	+553	30,500	34,062	0.068
waypoint	MARZA	00:25:12	00:23:25	-1.78	74,456	75,092	+636	32,900	34,062	0.037
waypoint	TOC	00:26:56	00:25:02	-1.91	74,200	74,888	+688	34,000	34,069	0.025
waypoint	LOHRE	00:29:14	00:27:11	-2.05	73,935	74,613	+678	34,000	34,061	0.072
waypoint	BOMBI	00:32:37	00:30:27	-2.17	73,545	74,203	+658	34,000	34,074	0.339
waypoint	DENUT	01:02:54	00:58:36	-4.30	70,091	70,764	+673	34,000	33,955	0.054
waypoint	LUMEN	01:04:21	00:59:59	-4.37	69,927	70,594	+667	34,000	33,947	0.033
waypoint	BULAM	01:07:59	01:03:34	-4.42	69,516	70,182	+666	34,000	33,933	0.034
waypoint	DIBLI	01:10:45	01:06:20	-4.41	69,203	69,837	+634	34,000	33,914	0.032
waypoint	RAPIX	01:12:12	01:07:51	-4.36	69,039	69,653	+614	34,000	33,910	0.009
waypoint	SUNUP	01:12:55	01:08:34	-4.36	68,958	69,564	+606	34,000	33,893	0.022
waypoint	TEBRA	01:14:22	01:10:04	-4.31	68,794	69,376	+582	34,000	33,893	0.051

* **Altitude:** the plan's nominal targets and recorded AMSL altitude have different reference conventions. Do not subtract them to infer flight-level error. Blank values are blank in the original CSV.

** **Matching:** horizontal distance to the planned fix at the nearest recorded sample. LKPR/TNCM use takeoff/touchdown events; their 0.000 values are placeholders, not zero-distance airport-reference matches. TOC/TOD are planned positions, not measured phase boundaries.

Appendix A / complete CSV / rows 20-38 of 38

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Segment	Waypoint	Plan elapsed HH:MM:SS	Actual elapsed HH:MM:SS	Time delta min	Plan FOB kg	Actual FOB kg	Actual - plan kg	Plan altitude ft *	Recorded ft AMSL *	Match NM **
waypoint	KOPUL	01:17:01	01:12:44	-4.29	68,494	69,043	+549	34,000	33,868	0.145
waypoint	ENHAQ	01:32:18	01:28:08	-4.17	66,766	67,132	+366	34,000	33,761	0.169
waypoint	GAJIT	01:33:48	01:29:40	-4.13	66,597	66,940	+343	34,000	33,751	0.134
waypoint	BAPHU	01:43:09	01:39:06	-4.05	65,541	65,759	+218	34,000	33,615	0.061
waypoint	ARKIL	02:06:44	02:02:07	-4.62	62,882	62,843	-39	34,000	33,495	0.058
waypoint	ODANU	02:32:43	02:27:17	-5.43	59,959	59,628	-331	34,000	33,468	0.045
waypoint	KOGAD	02:47:40	02:41:33	-6.11	58,291	57,806	-485	34,000	33,595	0.072
waypoint	48N020W	03:18:53	03:12:01	-6.87	54,818	53,923	-895	34,000	33,836	0.055
waypoint	44N030W	04:23:09	04:15:48	-7.35	47,728	45,846	-1,882	34,000	34,707	0.081
waypoint	40N040W	05:29:31	05:21:13	-8.31	40,588	38,170	-2,418	36,000	37,443	0.259
waypoint	35N045W	06:20:02	06:11:14	-8.80	35,397	33,055	-2,342	38,000	38,183	0.065
waypoint	30N050W	07:08:45	07:01:10	-7.59	30,581	28,038	-2,543	38,000	38,161	0.060
waypoint	25N055W	07:57:03	07:49:27	-7.59	25,845	23,240	-2,605	38,000	38,065	0.026
waypoint	20N060W	08:46:13	08:39:04	-7.14	21,079	18,329	-2,750	38,000	37,982	0.419
waypoint	TOD	08:57:27	08:50:24	-7.06	19,998	17,207	-2,791	38,000	37,979	0.063
waypoint	OBIKE	09:00:28	08:52:17	-8.19	19,929	17,020	-2,909	33,400	37,971	0.326
waypoint	NEYDU	09:06:44	08:56:08	-10.61	19,786	16,853	-2,933	23,900	30,049	0.069
waypoint	MNOLO	09:17:26	09:03:21	-14.08	19,541	16,600	-2,941	7,700	12,489	1.810
touchdown	TNCM	09:30:21	09:16:53	-13.47	19,018	15,423	-3,595		31	0.000

* **Altitude:** the plan's nominal targets and recorded AMSL altitude have different reference conventions. Do not subtract them to infer flight-level error. Blank values are blank in the original CSV.

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