SAFETY MATTERS
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WHITE PAPER / SMF WHITE PAPER 03

Counting What Flies

Passengers, landings, money and flying hours in Char Dham helicopter operations

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Safety Matters Foundation · CIN U85300HR2021NPL096553

Why the public figures do not reconcile, why that matters for airworthiness and passenger safety, and proposed terms of reference for an independent financial and operational audit

PREPARED FOR

Secretary, Ministry of Civil Aviation · Directorate General of Civil Aviation · Government of Uttarakhand · Uttarakhand Civil Aviation Development Authority

> Version 1.1 · 02 Nov 2026 (corrects Finding 4 of version 1.0) · Companion to SMF White Paper 02, *Hostile Environment Helicopter Operations in India*

EVIDENCE BASE

IRCTC Annual Reports 2023-24 and 2024-25 · Ministry of Civil Aviation and DGCA statements · DGCA Operations Circular 02/2023 Rev 1 · UCADA shuttle tender documents · Rudraprayag district statements · AAIB India reports · DGCA List of Non-Scheduled Operators

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1 Executive summary

21
deaths in Char Dham helicopter accidents, Oct 2022 to Jun 2025 (as reported)

+55%
more pilgrims in IRCTC's 2024 count (1.99 lakh) than the district's (1.28 lakh)

2.6×
IRCTC's 2024 pilgrims vs the most the hourly shuttle limits then in force allowed (≈77,800)

0
UCADA accounts or royalty receipts published

Kedarnath helicopter shuttles are sold through a government-mandated online system, flown under a DGCA operations circular that limits valley traffic, and charged a fixed royalty by the state for every landing. Three independent records of the same activity therefore exist: tickets, landings and money. SMF compared every public figure it could find for the 2023 to 2026 seasons. **They do not reconcile.**

1. **Two official passenger counts disagree.** For 2024, IRCTC's audited annual report records 1,98,916 pilgrims and ₹122 crore; the district's nodal officer reported more than 1.28 lakh devotees and more than ₹110 crore. The money is similar; the people differ by about 70,000. Neither source defines what it counts.
2. **IRCTC's count is far above what the hourly limits in force allowed.** DGCA OC 02/2023, as presented in an official safety review (mid-2025), limited Kedarnath shuttles to 2, 3 and 4 an hour from the Guptkashi, Phata and Sirsi clusters: 9 an hour, or 108 landings a day. That allows at most about 77,800 pilgrims in a 120-day season. IRCTC reports 1,98,916 for 2024, about 2.6 times as many; at 108 landings a day they would take about 307 days to fly. IRCTC's value per pilgrim (₹6,133) matches one round-trip fare, so its count appears to be real passengers.
3. **Officials' figures exceed the fare.** Officials' figures imply about ₹10,600 per devotee for May 2025 and ₹15,400 for 1–18 June 2025, above the highest round-trip fare (₹8,532, Guptkashi).
4. **Operator revenue: an earlier comparison is withdrawn.** Version 1.0 compared shuttle operators' revenues, taken from company-data services, with what the route can earn (at most about ₹3.9–7.4 crore per operator a season, ₹51 crore for the sector). One operator's audited accounts, filed with MCA, show total revenue of ₹129 crore in FY 2024-25 (not ≈₹219 crore), of which about ₹31 crore came from helicopter operations in all states; the rest came from a business unrelated to aviation. Unaudited figures cannot size helicopter income, so the per-operator multiples and the combined ₹1,300–1,800 crore figure are withdrawn. Operator-level questions need audited segment accounts, which the proposed audit would examine.
5. **The ledger that would settle it is not published.** UCADA's ₹5,000-per-landing royalty would count every Kedarnath landing exactly. SMF estimates receipts of ₹14–20 crore a year; the only press figure is "₹49 lakh". UCADA's accounts are not published.
6. **The gaps arose under official supervision.** DGCA airworthiness, safety and operations officers and AAI air traffic controllers were deployed in the valley from 2025. The records needed to reconcile the figures (movement logs, technical logs, tracking data) are held by officials, but no reconciliation has been published. On-board and CCTV recordings are kept for only 14 days.

Priority actions

- **Order an independent financial and operational audit** of Char Dham helicopter operations for 2023–2026, by a body independent of the DGCA and UCADA teams deployed in the valley (terms of reference in Section 14).
- **Preserve the evidence now**: direct DGCA, AAI, UCADA and operators to retain all movement logs, tracking data, technical logs, journey logs, CCTV and on-board recordings for the 2023–2026 seasons pending the audit.
- **Publish** UCADA's royalty and facilitation-fee receipts and trip counts per season and per operator.
- **Tell passengers** each operator's accident record and any current DGCA finding at the point of sale.

This paper does not allege that any operator has under-logged flying hours or acted unlawfully. It sets out why the public data cannot rule it out, and what should be examined so that it can. Operators are anonymised.

2 Sources and methodology

This document draws upon information, reports, records and data available in the public domain from official and other identified sources. The material has been examined and reviewed by Safety Matters Foundation (SMF).

Sources are cited wherever applicable. Findings, interpretations and recommendations attributable to SMF are distinguished from statements contained in the original sources.

Data. Passenger and revenue figures were taken from IRCTC's annual reports (Board's Report, "Shri Kedarnath Heliyatra Ticketing System"; 2023-24 p. 66, 2024-25), Ministry of Civil Aviation releases, UCADA and Rudraprayag district statements reported in the press, and UCADA's shuttle tender documents. Operating limits are from DGCA Operations Circular 02/2023 Rev 1 (11 September 2025) and, for the hourly shuttle limits and fares in force before it, from an official safety review presented in mid-2025. Accident data are from AAIB India reports and press reports. Operator-level revenue is taken only from audited financial statements filed with the Ministry of Corporate Affairs; company-data services were found unreliable for this purpose (Section 7).

Analysis. SMF converted passenger counts into landings (six passengers per landing, the most favourable assumption), compared them with the circular's traffic limits, divided reported revenue by reported passengers, and built a generous ceiling for shuttle revenue per operator. All such figures are SMF estimates and are labelled as such.

Evidence	Source type	Confidence
IRCTC passengers and transaction value	Listed company's annual report	High
OC 02/2023 Rev 1 traffic limits, route, minimum flight time	DGCA circular	High
UCADA royalty and fee terms	Tender documents	High
District passenger and revenue figures	Officials quoted in press	Medium
Accident death tolls	Press reports; AAIB reports where available	Medium–high
Hourly shuttle limits (OC 02/2023) and 2025 fares	Official safety review (mid-2025)	Medium–high
Season capacity, landings needed, expected UCADA receipts	SMF calculations from the above (Annex B)	Medium (assumption-based: flying days, full loads)
Operator revenue	Company-data services, unaudited	Low until checked against AOC-4 filings

3 How the Char Dham shuttle system works

Element	What it is	Source
Booking	100% online through IRCTC's Heliyatra portal since 8 April 2023 (five-year MoU). Before 2023, about 30% of tickets were sold directly by operators.	IRCTC Annual Report 2023-24; IRCTC release, 19 Feb 2023
Royalty	₹5,000 per landing at Kedarnath (incl. GST), deposited weekly; plus a 3% Yatra Facilitation Charge on tickets.	UCADA shuttle tender (2023–25)
Fares	2025 round trip: Guptkashi ₹8,532; Phata ₹6,062; Sirsi ₹6,060. Tender allows 5% annual escalation.	Official safety review (mid-2025); UCADA tender
Pilots	Each operator must fly with pilots on its own payroll, with minimum experience.	UCADA tender
Traffic limits	To Sep 2025 (OC 02/2023): not more than 2 shuttles an hour from the Guptkashi cluster, 3 from Phata, 4 from Sirsi. Throughout: max 4 helicopters in the upper valley (2 in, 2 out), max 6 airborne, one on finals or take-off at Kedarnath at a time; flying sunrise to sunset −30 min. Rev 1 (Sep 2025) has no hourly cap.	Official safety review (mid-2025), citing OC 02/2023; OC 02/2023 Rev 1
Route and time	Prescribed valley route and heights; minimum logging time 18 / 16 / 14 min per shuttle (Guptkashi / Phata / Sersi).	OC 02/2023 Rev 1
Records	"Correct logging of flying hours and maintenance of all technical records shall be ensured"; AIRS and CCTV data retained 14 days; weekly FOQA.	OC 02/2023 Rev 1
Oversight	DGCA airworthiness, safety and operations officers posted in the valley (June 2025); AAI controllers in control rooms; ATC and met units at Sahastradhara and Sersi (2026); interim ATC at Kedarnath reported for 2026.	MoCA/DGCA statements (ETV Bharat, The Tribune); MoCA release Jun 2026
Helipad	AAIB found the Kedarnath helipad was not licensed by DGCA; SMF found no record that it has since been licensed.	AAIB reports (VT-RPN; VT-RNK 2023); SMF WP02

4 Finding 1: two official passenger counts

Season	IRCTC (annual report)	Other official figure	Value per pilgrim
2023 (FY 2023-24)	83,714 tickets · 1,92,551 pilgrims · ₹121 cr	UCADA revenue "₹49 lakh" (press)	≈₹6,300
2024 (FY 2024-25)	74,497 tickets · 1,98,916 pilgrims · ₹122 cr	>1.28 lakh devotees · >₹110 cr (district)	IRCTC ≈₹6,100; district ≈₹8,600
2025 (to 18 Jun)	not yet published	49,247 devotees · ₹60 cr (district)	≈₹12,200
2026 phase 1 (22 Apr–26 Jun)	not yet published	67,064 shuttle pilgrims · 12,032 departures (MoCA)	not published

IRCTC describes its figures as tickets "booked"; cancellations are not stated.

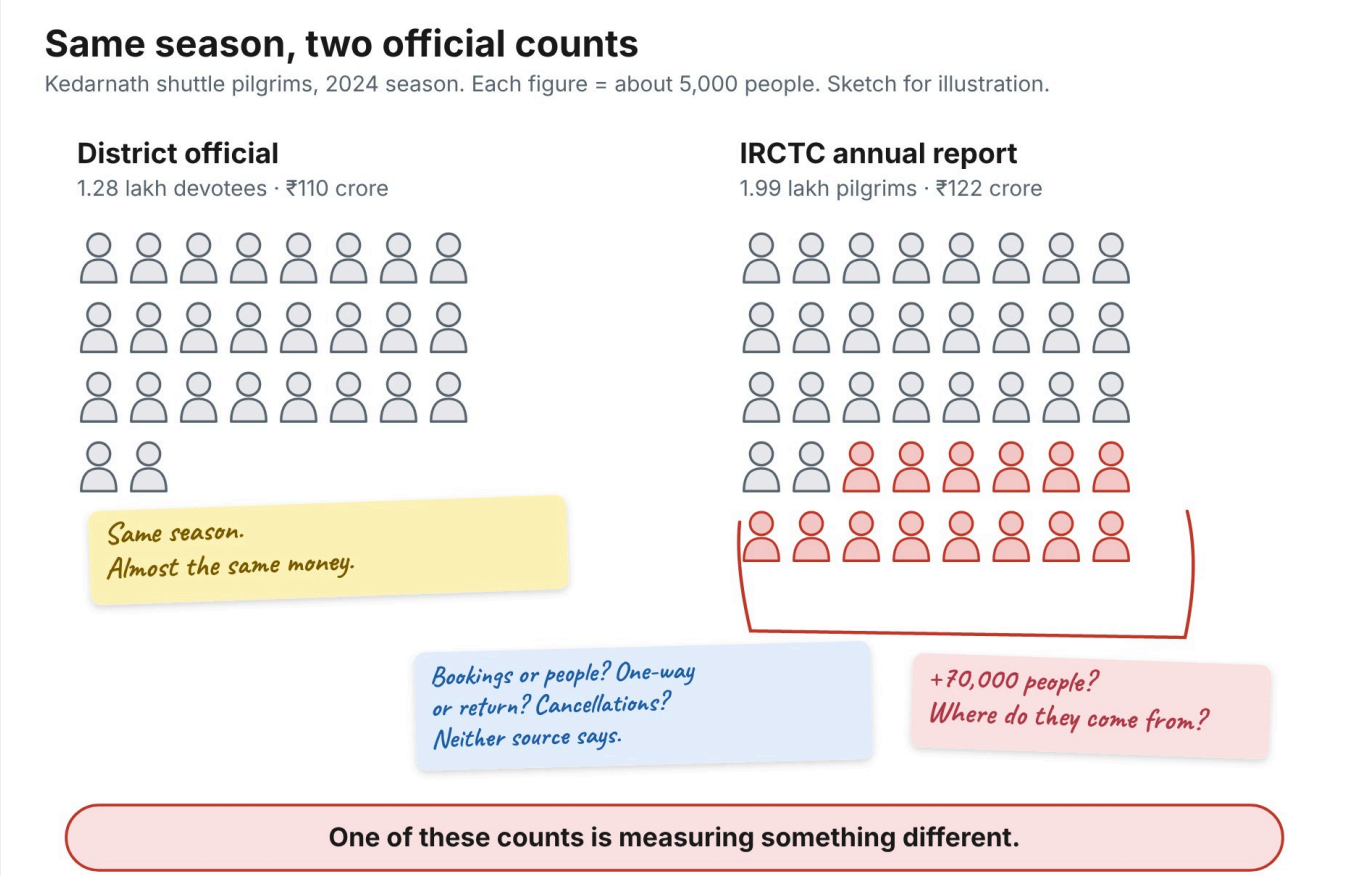


Figure 1. Same season, two official counts (sketch; each figure ≈5,000 people).

The difference may reflect bookings versus travellers, one-way versus return tickets, or cancellations. Neither IRCTC nor the district defines its unit. The Ministry's 2026 release similarly reports "departures" and "pilgrims" without definitions: if a departure is a round trip, the 2026 traffic was about 182 round trips a day; if it is one leg, the 67,064 "pilgrims" must be boardings, not people.

5 Finding 2: landings the valley could handle

Until Rev 1 (September 2025), OC 02/2023 capped Kedarnath shuttles by base cluster. Each shuttle is a round trip with one landing at Kedarnath, and each landing drops six pilgrims and collects six returning ones.

Cluster	Operators	Limit (shuttles an hour)	Landings a day (12 h)	Pilgrims a day (×6)
Guptkashi	2	2	24	144
Phata	4	3	36	216
Sirsi	3	4	48	288
Total	9	**9**	**108**	**648**

Limits apply to the whole cluster, shared by its operators (official review wording). Full working in Annex B.

Season	IRCTC pilgrims	Landings needed (÷6)	Days needed at 108 a day	Times the 120-day maximum (77,760)
2023	1,92,551	≈32,090	≈297	≈2.5×
2024	1,98,916	≈33,150	≈307	≈2.6×

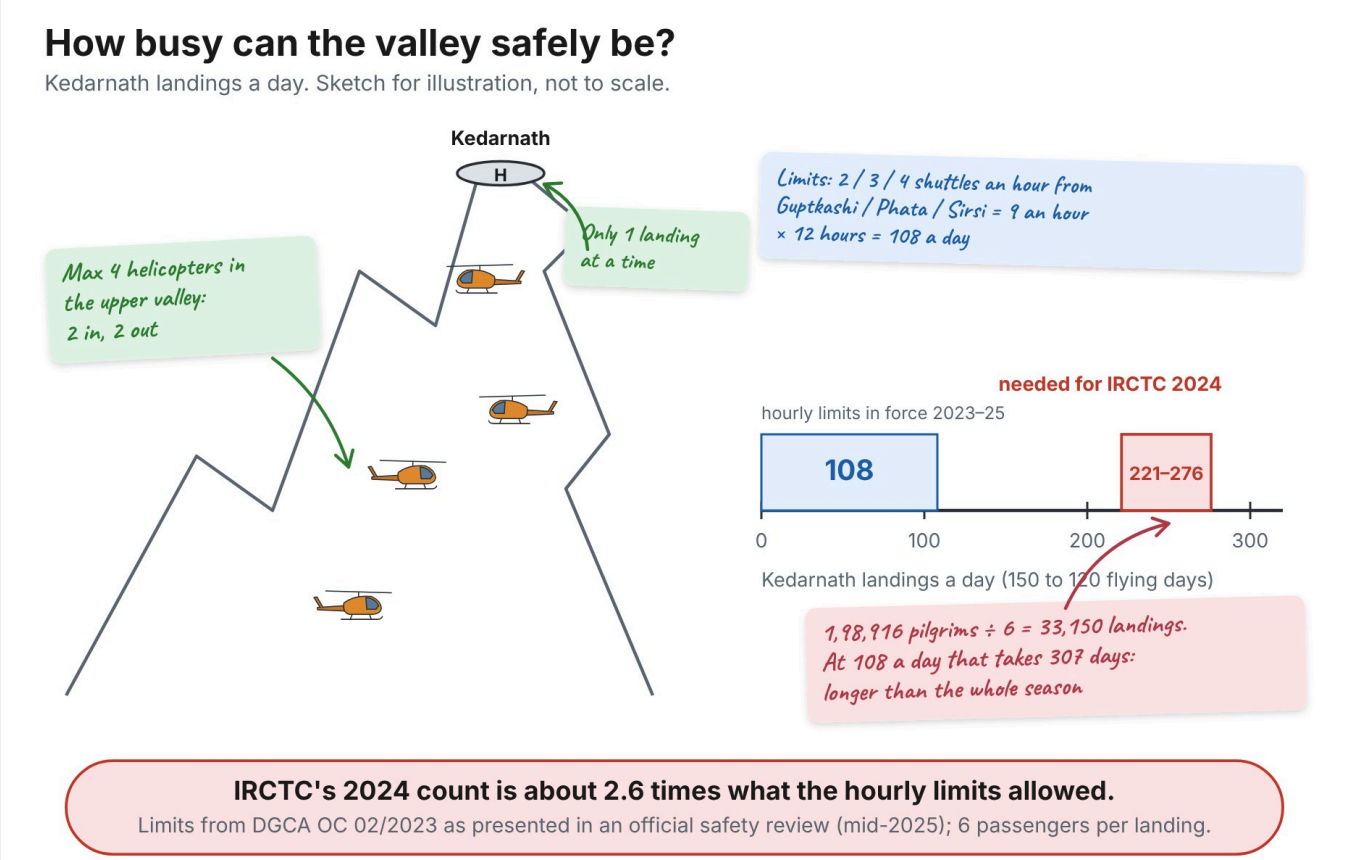


Figure 2. The hourly limits allowed 108 Kedarnath landings a day; IRCTC's 2024 count needs about 221–276 a day over 150 to 120 flying days (sketch).

6 Finding 3: money per passenger

Dividing reported money by reported passengers should give roughly one round-trip fare. IRCTC's figures do; the officials' figures for 2025 do not.

Figure	Revenue	Passengers	₹ per passenger	vs highest fare (₹8,532)
IRCTC 2024	₹122 cr	1,98,916	6,133	0.72× (≈ capacity-weighted fare ₹6,295 at 2024 prices)
District 2024	₹110 cr	1,28,000	8,594	1.01×
District 2–31 May 2025	₹35 cr	33,000	10,606	**1.24×**
District 1–18 Jun 2025	₹25 cr	16,247	15,387	**1.80×**

Fares: 2025 round trip, official safety review. 2024 fares assumed 5% lower (tender escalation).

IRCTC's money per pilgrim matches the average fare, which suggests its count is of real round-trip passengers. The district's figures imply more money per person than any ticket costs, which suggests its passenger count is too low or its revenue includes other income. The 2025 season total later reported ("more than ₹56 crore" from 1.4 lakh pilgrims) is lower than the mid-June figure for a third as many pilgrims. Within the hourly limits, the whole shuttle sector could earn at most about ₹51 crore a season; IRCTC sold ₹122 crore in 2024, about 2.4 times as much.

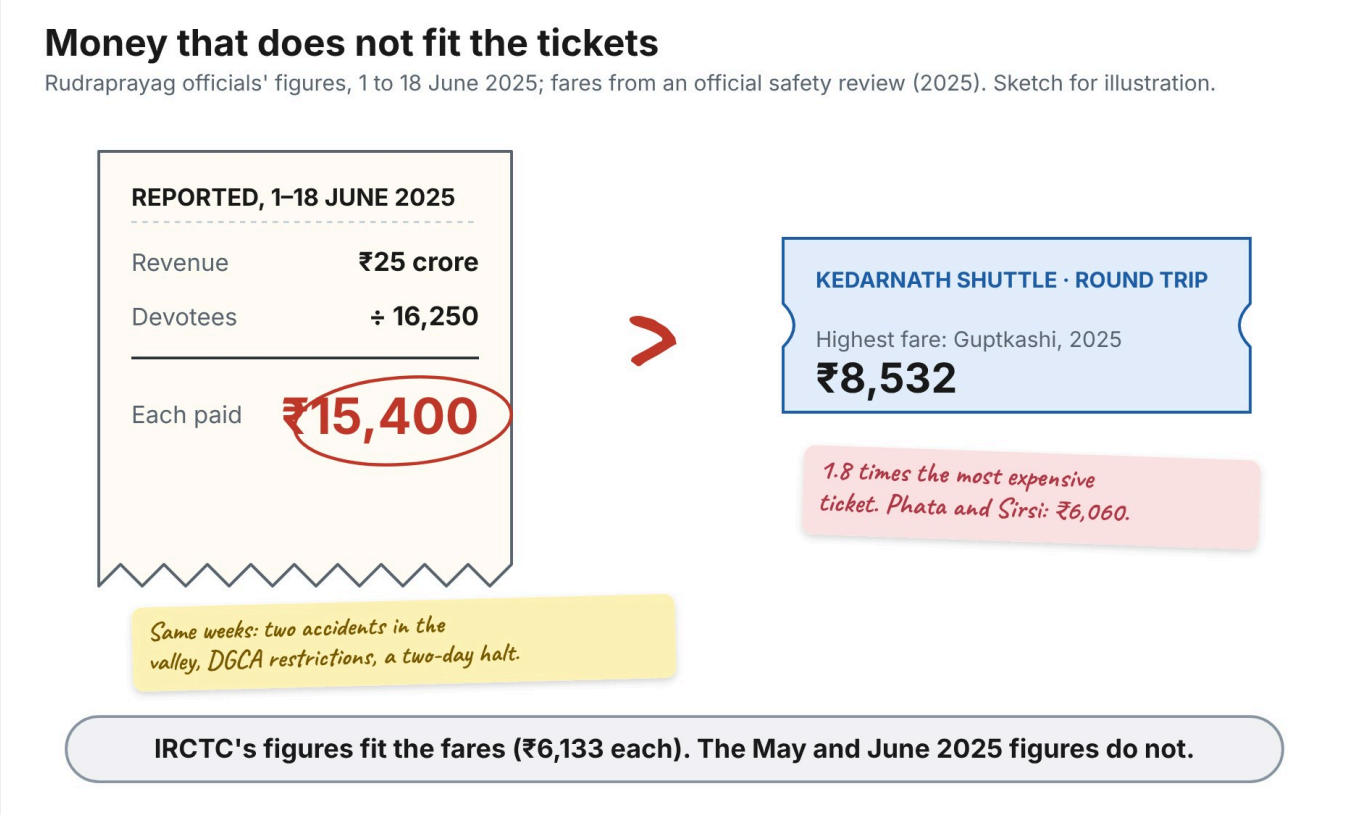


Figure 3. Money that does not fit the tickets (sketch).

7 Finding 4: operators' revenue (corrected in version 1.1)

Correction

Version 1.0 of this paper compared four shuttle operators' reported revenues, taken from company-data services, with SMF's shuttle maximum, and put the private operators' combined revenue at about ₹1,300–1,800 crore. **SMF has withdrawn both.** One of those operators' audited accounts show the company-data figure was not reliable, and SMF cannot assume the others are.

SMF's ceiling for what a shuttle operator could earn within the hourly limits is unchanged: its equal share of its cluster's hourly slots, full helicopters, 12 hours a day for 120 days, at 2025 fares, gives about ₹3.9–7.4 crore a season per operator and about ₹51 crore for the sector (Annex B4).

One shuttle operator (anonymised)	₹ crore	Source
Revenue reported by company-data services	≈219	Unaudited; withdrawn
Total revenue from operations, FY 2024-25	129.0	Audited financial statements filed with MCA
of which helicopter operations (all bases and states, shuttle and charter)	31.4	Segment note, same statements
of which a business unrelated to aviation	97.6	Segment note, same statements
Helicopter operations, FY 2023-24	39.8	Segment note, FY 2023-24 statements

On audited figures, this operator's helicopter income is within what its fleet can earn at the utilisation recorded in AAIB reports (about ₹47–93 crore a year).

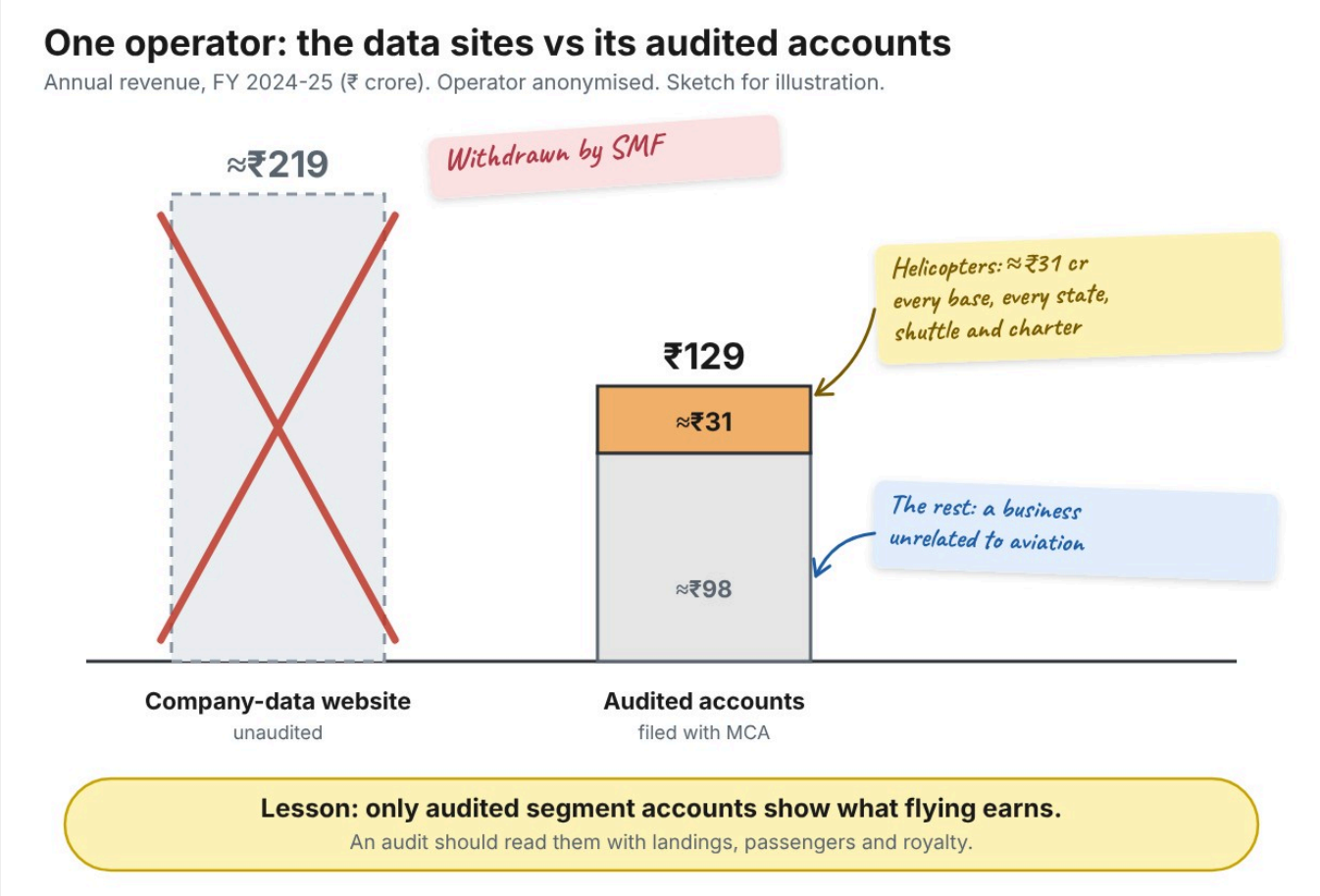


Figure 4. One operator: the company-data figure against its audited accounts (sketch).

Two lessons follow. First, unaudited company-data figures cannot be used to size operators' helicopter income. Second, the operator-level question (whether each operator's Char Dham shuttle income reconciles with its landings, passengers and royalty) can only be answered from audited segment accounts read with UCADA's and IRCTC's records. That is part of the proposed audit (Section 14). The discrepancies that remain in this paper lie between the official counts themselves.

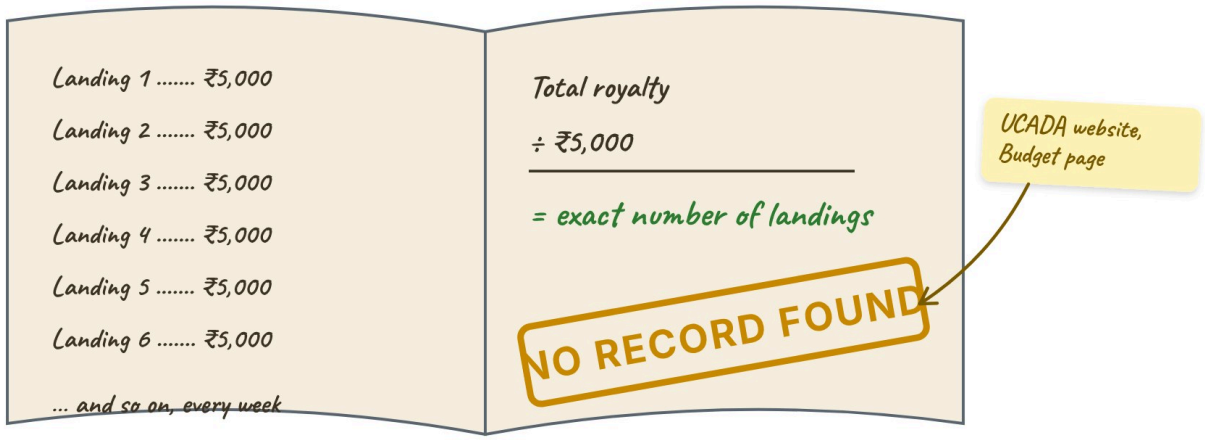
8 Finding 5: UCADA's receipts

Season	Landings (SMF est.)	Expected royalty + 3% fee (SMF est.)	Reported
2023	≈32,100 (IRCTC basis)	≈₹19.7 cr	"₹49 lakh", also described as ₹21 cr more than 2022 (Amar Ujala)
2024	≈21,000 (district) to ≈33,150 (IRCTC)	≈₹14–20 cr	"more than ₹50 cr" expected (press)
2026 phase 1	≈12,000	≈₹6 cr royalty	not published

UCADA website "Budget" page: "No record found" (accessed 2026).

The one ledger that would settle it

UCADA charges ₹5,000 for every landing at Kedarnath. Sketch for illustration.



Should be about

₹14–20 crore a year

SMF estimate from official passenger counts

Only figure in the press

"₹49 lakh"

for 2023, in the same report that called it ₹21 crore up

UCADA's accounts are not published.

Figure 5. Royalty ÷ ₹5,000 = exact Kedarnath landings (sketch).

9 Finding 6: the records that already exist

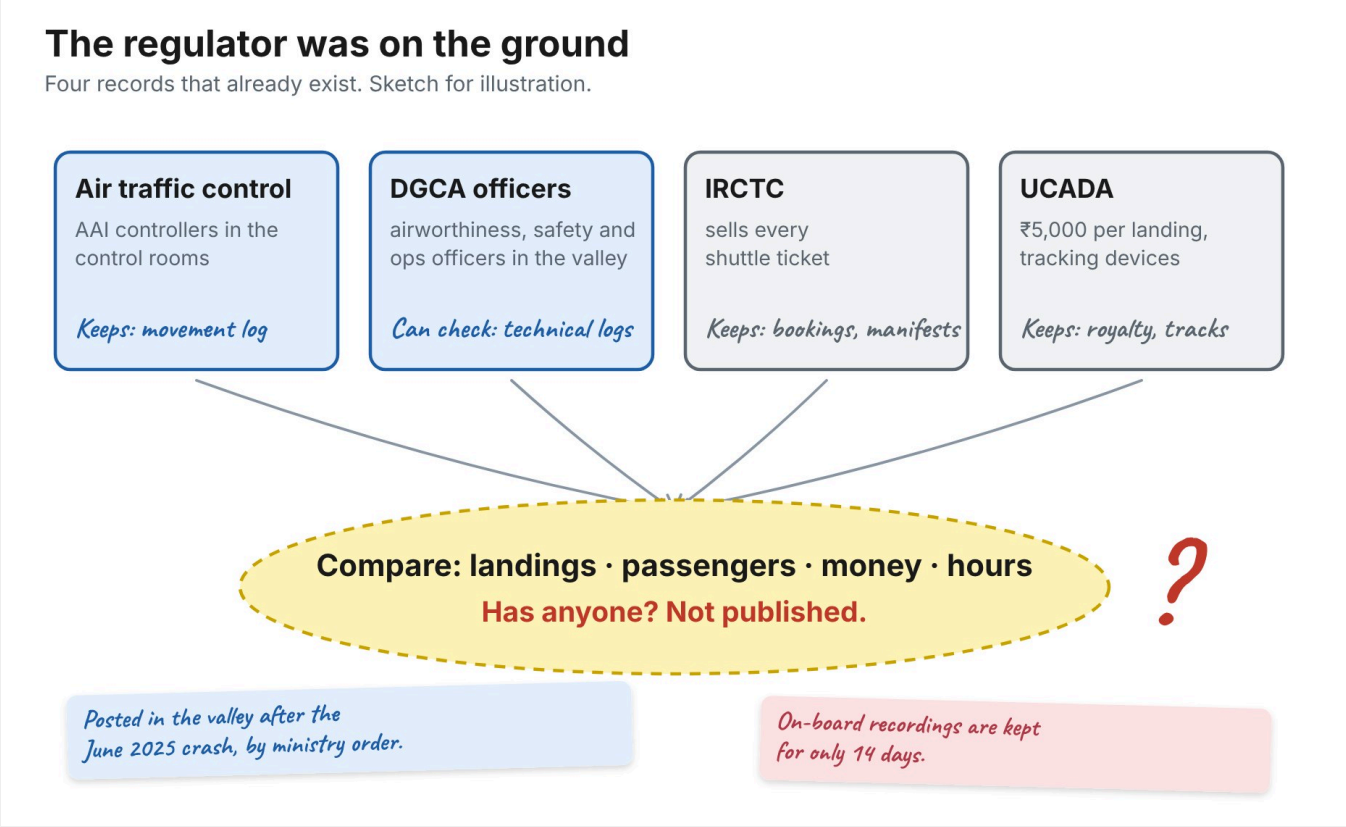


Figure 6. Four official records that could be reconciled (sketch).

Air traffic control units keep movement logs; DGCA officers can inspect technical and journey logs on site; IRCTC holds bookings and manifests; UCADA holds royalty receipts and tracking data from devices fitted to every helicopter, and says its Sahastradhara command centre tracks every shuttle in real time. None of these has been compared and published. On-board image recordings and CCTV need be kept for only 14 days, so evidence for past seasons may already be lost unless preserved by direction. DGCA's List of Non-Scheduled Operators (31 August 2026) still showed a helicopter destroyed in June 2025 on its operator's permit, which suggests the regulator's own records are not fully current.

10 Finding 7: route discipline

One way to fit more trips into a day is to fly shorter paths across ridges rather than the prescribed valley route. The circular's route, height gates, reporting points and minimum logging times exist to prevent this. **SMF has no evidence that shortcuts are flown.** Tracking-device data compared with the prescribed route and minimum times would establish it quickly.

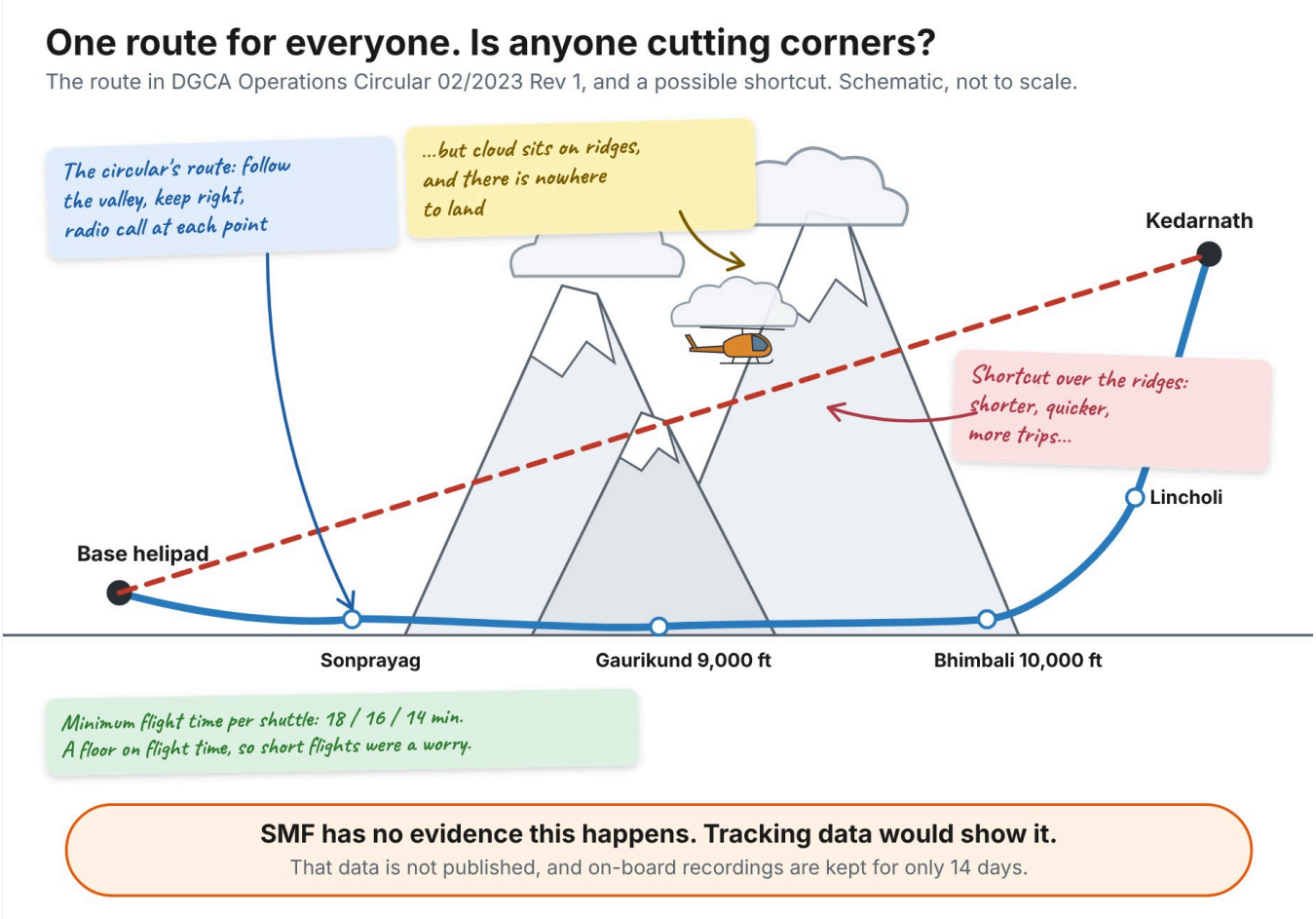


Figure 7. Prescribed valley route and a possible ridge shortcut (schematic, not to scale).

11 Why this is a safety question

The technical log is the basis of airworthiness. Inspection intervals, component lives and overhauls are counted from logged hours; pilots' flight and duty limits are counted from logged flights. If flying exceeds what is logged, inspections fall due later on paper than in the air, life-limited parts can run past their limits, and fatigue limits can be breached without trace. The regulator has recognised the risk: the circular requires "correct logging of flying hours and maintenance of all technical records" and sets minimum logging times. AAIB has recorded verbally reported, unlogged snags in a 2019 Kedarnath accident, and an official safety review in mid-2025 noted a tail-rotor blade fitted from a grounded helicopter before a fatal crash.

Date	Place	Deaths
18 Oct 2022	Garud Chatti, near Kedarnath	7
23 Apr 2023	Kedarnath helipad (tail rotor, on ground)	1
8 May 2025	Gangnani, Uttarkashi	6
15 Jun 2025	near Gaurikund	7
	Total	21

Tolls as reported; read with AAIB reports. No investigation has linked these accidents to unlogged flying, and SMF does not claim that one did.

12 What the gaps could mean

Possibility	Safety relevance	Evidence that would settle it
More flying than officially counted	Traffic above the levels the limits assume	ATC movement logs; UCADA royalty receipts; IRCTC manifests
Shortcuts over the ridges	Reduced terrain and cloud clearance; no forced-landing options; unexpected traffic	Tracking data; on-board recordings; actual vs minimum flight times
Flying hours left out of technical logs	Overdue inspections and components; breached flight-time limits	Technical and journey logs reconciled with tracking and landings
Money outside the official channel	Passengers absent from official counts	Operators' audited segment accounts; bank-to-IRCTC reconciliation

Each possibility has innocent explanations. These are questions for the authorities to resolve, not findings.

13 Recommendations

1. **Ministry of Civil Aviation:** order an independent financial and operational audit of Char Dham helicopter operations, 2023–2026, under the terms of reference in Section 14, conducted by a body independent of the DGCA and UCADA personnel deployed in the valley, and publish its findings.
2. **Ministry of Civil Aviation / DGCA / AAI:** issue an immediate direction to preserve all relevant records pending the audit.
3. **Government of Uttarakhand / UCADA:** publish audited annual accounts and, per season and per operator, royalty and facilitation-fee receipts, trips per helipad per day and passengers per trip; define "departure", "pilgrim" and "load cap". Invite the Comptroller and Auditor General to audit UCADA's heli-service receipts.
4. **DGCA:** at least once a season, reconcile each Char Dham helicopter's technical-log hours with royalty-paid landings, tracking data and IRCTC manifests, and publish a summary; license the Kedarnath helipad.
5. **DGCA / UCADA:** retain CCTV, on-board recordings and tracking data for the whole season, not 14 days.
6. **UCADA / IRCTC:** show each operator's accident and serious-incident record and any current DGCA finding at the point of sale.
7. **UCADA:** require shuttle operators to report Char Dham revenue separately in their filed accounts as a tender condition.

14 Proposed terms of reference for an independent audit

Item	Proposed scope
Objective	Establish, for each season 2023–2026 and each operator, whether passengers carried, landings made, revenue received, royalties paid and flying hours logged are consistent with one another and with DGCA limits.
Independence	Conducted by a forensic auditor or committee appointed by the Ministry, independent of DGCA and UCADA personnel who supervised Char Dham operations, with an aviation airworthiness expert and a chartered accountant.
Records	IRCTC bookings, manifests, cancellations and settlements; UCADA royalty and fee receipts, tracking and command-centre data; AAI/ATC movement logs; operators' technical logs, journey logs, maintenance records, pilot logbooks and rosters; operators' audited accounts, AOC-4 and MGT-7 filings and bank records of shuttle receipts.
Tests	(a) landings: royalty ÷ ₹5,000 vs ATC logs vs tracking vs technical logs; (b) passengers: IRCTC manifests vs landings × seats; (c) money: IRCTC settlements vs operator revenue vs fare caps; (d) hours: logged hours vs tracked flight time and minimum logging times; (e) compliance with traffic limits, route and pilot-payroll conditions; (f) sales outside the official channel.
Output	A public report with per-operator findings, any airworthiness actions required, and system recommendations.
Timeline	Records preserved immediately; report before the 2027 season opens.

15 Limitations

SMF has not seen any operator's technical log, journey log, bank record or filed accounts, nor any official movement or tracking log. Passenger figures may count different units; cancellations are not known. Capacity and revenue ceilings rest on stated assumptions (six passengers per landing, a 12-hour flying day, about 120 flying days, hourly limits applied per cluster, 2025 fares) and are estimates. If the hourly limits applied per operator rather than per cluster, capacity would be about three times higher; the official review words them per cluster. Revenue figures from company-data services are not used; one operator's audited accounts showed them to be unreliable (Section 7). SMF's analysis is not an official finding, and nothing in this paper should be read as an allegation against any operator, pilot or official.

A Annex A: data and sources

Figure	Value	Source
IRCTC FY 2023-24	83,714 tickets; 1,92,551 pilgrims; ₹121 cr; fee ₹5.38 cr	IRCTC Annual Report 2023-24, p. 66
IRCTC FY 2024-25	74,497 tickets; 1,98,916 pilgrims; ₹122 cr; fee ₹5.64 cr	IRCTC Annual Report 2024-25, Board's Report
District 2024	>1.28 lakh devotees; >₹110 cr	Rudraprayag District Tourism Officer (press)
District 2025	33,000 / ₹35 cr to 31 May; 49,247 / ₹60 cr to 18 Jun	Rudraprayag DTO (ETV Bharat, 1 and 19 Jun 2025)
MoCA 2026 phase 1	67,064 shuttle pilgrims; 12,032 shuttle departures; 11,715 charter pilgrims	MoCA release, 27 Jun 2026
UCADA 2026	17,976 shuttle passengers by 10 May	UCADA via PTI, 12 May 2026
Pre-2023 sales	≈70% online, ≈30% via operators; 1.32 lakh users in 2022	IRCTC release, 19 Feb 2023
Royalty and fee	₹5,000 per Kedarnath landing (incl. GST), weekly; 3% facilitation charge	UCADA shuttle tender corrigendum
Traffic and route	Limits, route, minimum logging time, record retention	DGCA OC 02/2023 Rev 1, 11 Sep 2025
Hourly shuttle limits (to Sep 2025)	Guptkashi 2, Phata 3, Sirsi 4 shuttles an hour per cluster	Official safety review (mid-2025), citing DGCA OC 02/2023
Fares 2025 (round trip)	Guptkashi ₹8,532; Phata ₹6,062; Sirsi ₹6,060	Official safety review (mid-2025)
Charter limits	One helicopter at a time at Badrinath and Jhala/Harsil; two at Kharsali	OC 02/2023 (Rev 1, Appendix D); official safety review
Oversight deployments	DGCA officers in valley; AAI controllers; ATC/met units 2026	MoCA/DGCA via ETV Bharat, The Tribune (2025–26)
Helipad licensing	Kedarnath helipad not DGCA-licensed	AAIB reports VT-RPN, VT-RNK (2023)
Operator revenue (one operator)	Total ₹129.0 cr, helicopter segment ₹31.4 cr (FY 2024-25)	Audited financial statements filed with MCA

B Annex B: working

Every SMF figure in this paper can be reproduced from the steps below. All inputs are cited in Annex A.

B1. Pilgrims to Kedarnath landings

A shuttle seats at most 6 passengers. On each Kedarnath landing it drops 6 pilgrims and collects 6 returning pilgrims, so one landing completes the round trip of 6 people. Landings = pilgrims ÷ 6. Six is the most favourable load; any empty seat means more landings.

Season	Pilgrims (IRCTC)	÷ 6	Landings
2023	1,92,551	÷ 6	32,092
2024	1,98,916	÷ 6	33,153

B2. Capacity under the hourly limits (to September 2025)

Step	Working	Result
Hourly limit, all clusters	2 (Guptkashi) + 3 (Phata) + 4 (Sirsi)	9 landings an hour
Flying day	sunrise to 30 min before sunset ≈ 12 h (11–13 h through the season)	12 h
Landings a day	9 × 12	108 (99 at 11 h; 117 at 13 h)
Pilgrims a day	108 × 6	648
Season (120 flying days)	108 × 120; 648 × 120	12,960 landings; 77,760 pilgrims
Season, 13-hour days	117 × 120; 702 × 120	14,040 landings; 84,240 pilgrims

B3. IRCTC's count against that capacity

Test	Working	Result
Times the 120-day maximum (2024)	1,98,916 ÷ 77,760	2.56×
Times the 13-hour-day maximum (2024)	1,98,916 ÷ 84,240	2.36×
Days needed at 108 a day (2024)	33,153 ÷ 108	307 days
Days needed at 108 a day (2023)	32,092 ÷ 108	297 days
Landings a day needed, 120 / 150 days (2024)	33,153 ÷ 120; 33,153 ÷ 150	276; 221

B4. Revenue capacity under the hourly limits

Cluster	Landings a day	Pilgrims a day	Fare 2025 (₹)	Revenue a day (₹)	Per operator, 120 days (₹ cr)
Guptkashi (2 operators)	24	144	8,532	12,28,608	12,28,608 × 120 ÷ 2 = 7.4
Phata (4 operators)	36	216	6,062	13,09,392	13,09,392 × 120 ÷ 4 = 3.9
Sirsi (3 operators)	48	288	6,060	17,45,280	17,45,280 × 120 ÷ 3 = 7.0
Total	108	648	6,610 (weighted)	42,83,280	Sector: × 120 = ₹51.4 cr

At 2024 prices (fares ÷ 1.05): sector ≈ ₹49 cr; capacity-weighted fare ≈ ₹6,295. IRCTC 2024 sales ₹122 cr ÷ ₹51.4 cr = 2.4×.

B5. Money per passenger

Revenue ÷ passengers, compared with the highest 2025 round-trip fare (₹8,532): IRCTC 2024 ₹122,00,00,000 ÷ 1,98,916 = ₹6,133; district 2024 ₹110,00,00,000 ÷ 1,28,000 = ₹8,594; May 2025 ₹35,00,00,000 ÷ 33,000 = ₹10,606; 1–18 June 2025 ₹25,00,00,000 ÷ 16,247 = ₹15,387 (the June figures are the difference between the officials' cumulative totals to 31 May and to 18 June).

B6. Expected UCADA receipts

Royalty = landings × ₹5,000; facilitation charge = 3% of ticket value. 2023: 32,092 × ₹5,000 = ₹16.0 cr, plus 3% of ₹121 cr = ₹3.6 cr, total ≈ ₹19.7 cr. 2024: 33,153 × ₹5,000 = ₹16.6 cr, plus 3% of ₹122 cr = ₹3.7 cr, total ≈ ₹20.2 cr; on the district count (≈21,300 landings) ≈ ₹14 cr. Even at the 108-a-day limit, royalty alone would be 12,960 × ₹5,000 ≈ ₹6.5 cr a season, far above "₹49 lakh".

B7. Market size

Shuttle sales (IRCTC 2024) ≈ ₹122 cr; Char Dham charter estimate ≈ ₹270–560 cr (packages of ₹1.2–2.5 lakh per person, charter passengers scaled from the 2026 shuttle-to-charter ratio; low confidence). Total ≈ ₹390–680 cr. (Version 1.0 compared this with the private operators' combined revenue from company-data services, ≈₹1,300–1,800 cr. That comparison is withdrawn; see Section 7.)

B8. What would change the result

- More flying days or longer days lower the daily figure but not the season total: even 13-hour days for 150 days allow about 1,05,300 pilgrims, half of IRCTC's count.
- Cancellations would reduce passengers flown; IRCTC reports tickets booked. Its money per pilgrim matching the fare suggests cancellations are not large.
- If the hourly limits applied per operator rather than per cluster, capacity would be about three times higher and the gap would close; the official review words them per cluster.
- Charters to Kedarnath must use shuttle helipads or slots (Rev 1, Appendix B para 3(h)), which reduces shuttle capacity further.

Read online: the plain-language opinion piece, sketches and explainer video are at https://safetymatters.co.in/numbers-dont-fly-char-dham-helicopter-data/

About SMF and the author

Safety Matters Foundation (CIN U85300HR2021NPL096553) is an independent, not-for-profit aviation safety organisation in India working on aviation safety, human factors and accident investigation. Capt. Amit Singh FRAeS is a senior commercial pilot, a Fellow of the Royal Aeronautical Society and SMF's founder. No one commissioned this paper and it received no external funding.

Disclaimer

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