AERONOVA TIA
TOTAL INTELLIGENCE FOR AIRPORTS

AAI PPP ROUND 3

Detailed Project Appraisal

Bid intelligence | 5 bundles | 11 airports

Published by Aeronova TIA Consultancy

3 November 2026 | Version 6.0

Traffic through Sep2026 | assets and published plans

15% equity hurdle | explicit allowance scenarios

PRICE THE BID. FUND THE OBLIGATIONS.

Financial simulations, initial and lifecycle capital, capacity phasing, flyer catchments, ground access, Blender / Three.js digital twins and illustrative OLS. Analytical working appraisal: official context and assumptions are identified separately.

READER GUIDE

Publication control & appraisal mandate

Published by Aeronova TIA Consultancy
Detailed project appraisal and conditional bid intelligence | 3 November 2026 | Version 6.0.

The report supports investment screening of five proposed airport groups comprising eleven airports. It combines reported traffic, an explicitly assumed capital plan, a phased financial model, surface-access pilots and illustrative airport/city geometry. It is prepared for review under the publication branding requested by the commissioning user.

The report is a computational analytical working appraisal, not a signed independent engineer report, legal opinion, traffic consultant certification or lender commitment. No final RFP, concession pack or addenda have been verified. The absence of a document is not evidence that an obligation does not exist.

Control	Basis
Currency	Nominal INR crore, except per-passenger / per-ride rates in rupees
Traffic unit	Passenger movements: arrivals plus departures; not unique people
Default operating period	FY2028-FY2077, 50 years; assumed, not a verified concession term
Equity hurdle	15% nominal; retained per sponsor instruction
Consideration	Rs 0 / 500 / 1,000 / 2,000 crore total per bundle; scenarios
Data date	Traffic through FY2026; evidence reviewed 3 November 2026
Publication	User-requested Aeronova TIA Consultancy branding; no regulator endorsement

How to use the conclusions

Read the executive decision with the assumption and evidence pages. Use the HTML to change a scenario; this PDF is a fixed snapshot of the default case. Re-run the appraisal after receiving actual obligations, tariffs and lender terms. Final submission requires the release gates and signed sponsor authority, even if the model screen passes.

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INVESTMENT DECISION

Executive investment conclusion

Default conclusion: Hold / restructure every bundle. With a Rs 500 crore upfront/CWIP allowance applied separately to each group, none meets the combined downside NPV and DSCR tests at a zero passenger fee. This is a consequence of the entered assumptions, not a claim that an official transaction is intrinsically unviable.

Group	Base-only opening / target / stop	Protected decision
B1 BBI+HBX	No supported base bid	Hold / restructure
B2 ATQ+DHM	No supported base bid	Hold / restructure
B3 VNS+GAY+KBK	No supported base bid	Hold / restructure
B4 TRZ+TIR	No supported base bid	Hold / restructure
B5 RPR+IXU	No supported base bid	Hold / restructure

The base-only figures are negotiation diagnostics. They use 75%, 90% and 100% of the base NPV/DSCR ceiling, rounded down to Rs 5. They are not the protected recommendation. With the revised demand/capacity case, the default Rs 500 crore allowance yields no supported base or protected bid in any group. The simulation tests Rs 0 as a failure diagnostic; it is not a recommended offer. The stress sample is rerun against the disclosed current profiles. Passing paths are descriptive of that subjective sample, not calibrated probabilities.

The slower evidence-based demand case and removal of unsupported automatic capacity materially reduce fee headroom. No group supports a protected positive price even with zero consideration in the tested downside. Some zero-consideration base sensitivities can differ from the protected decision; consult the recalculated tables rather than prior-version fee bands. Obtain verified project scope and a condition-based capital plan before attempting to restore valuation.

Sponsor action

Do not authorise a binding passenger fee from this snapshot. First reconcile the asset/CWIP transfer price and mandatory works, replace aero proxies with airport-specific orders, verify capacity dates and obtain a financed equity programme. Protect cash before distributions. Implement access pilots through operators rather than owned fleets and give no credit to unproven incremental air traffic.

EVIDENCE HIERARCHY

Official context versus transaction conditions

The Department of Economic Affairs PPPAC meeting index includes a 149th meeting entry dated 4 August 2026 listing the five proposed groupings used in this appraisal. The grouping is official context. The index is not a substitute for final bidder qualification, award or concession conditions.

The National Monetisation Pipeline 2.0 policy discusses passenger-fee participation and recovery of previous AAI investment through upfront amounts. It supports testing a consideration payment rather than treating zero as known. It does not establish the actual sum, tax basis, payment timing or the transferred CWIP inventory for these groups.

Established context	Unverified and price-sensitive
Five proposed group compositions	Final lot IDs, qualification rules, award caps and addenda
AAI reported historical passenger counts	Audited data-room base, exemptions and fee passenger definition
Some dated capacity/project references	Commissioned capacity, funded scope and private obligations
Official access/geographic descriptions	Current timetables, route demand, fare and operator contracts
Published airport-charge register	Applicable airport tariff formula, control period and future orders

Primary references

DEA PPPAC meeting index
NITI Aayog NMP 2.0 publication
AAI airport charges register

Press clippings, old airline lists and the inherited dossier are not promoted to binding evidence. Every return calculation remains conditional on a reviewed final pack. Clause labels from the supplied material are diligence leads only; no purported numbered concession right is relied upon.

ASSET AND CAPITAL REGISTER

Portfolio reconciliation & units

Code	FY26 movements	Intl %	Initial Cr	Lifecycle Cr
BBI	5,130,834	3.0	2,355	6,950
HBX	376,286	0.0	370	1,200
ATQ	2,941,017	33.9	393	4,120
DHM	164,056	0.0	130	1,370
VNS	4,343,347	3.3	2,117	6,150
GAY	357,462	25.5	260	1,120
KBK	20	0.0	90	580
TRZ	2,221,024	62.7	931	3,790
TIR	1,196,176	0.0	480	1,830
RPR	2,763,498	0.0	1,086	3,980
IXU	628,152	0.0	410	1,910

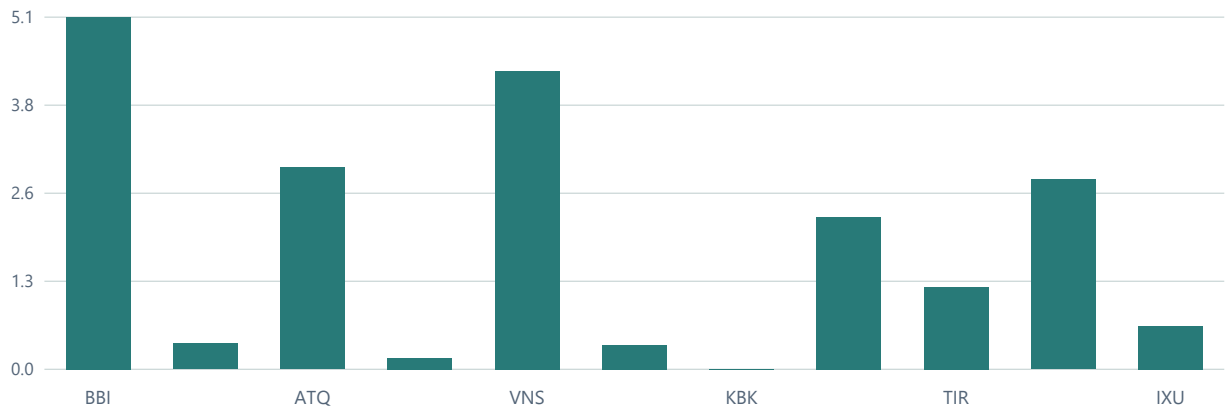
Reported FY2026 total: 20,121,872 movements. Initial capital: Rs 8,622 crore; lifecycle capital including that initial amount: Rs 33,000 crore. Additional transport programme costs are separately identified. The base-price totals do not include nominal escalation, unknown consideration or an independently verified handback obligation.

The original FY2026 assumption of 20.67 million movements is retained in the audit trail and replaced in the default financial case by reported AAI data. The difference is material at smaller airports and in international fee weighting. Original subjective scores and quotes do not determine the new valuation.

Sources: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Initial/lifecycle amounts: inherited dossier, unverified. 1 million passenger movements x Rs 1 = Rs 0.1 crore.

DEMAND EVIDENCE

Historic traffic: scale, recovery & uncertainty



FY2026 reported total passenger movements, million; AAI March 2026 source vintage.

The register contains 86 reported annual observations: FY2019 and FY2020 for ten airports plus FY2021-FY2026 for all eleven. Kushinagar has no invented pre-opening observation. Airport-specific growth profiles use pre-COVID-to-FY2026 trends, local judgement and cautious FY2027 outlook context. Recovery CAGR is not extrapolated. Rates and uncertainty bands remain assumptions, not econometric or airline-committed forecasts.

A bidder should obtain monthly airline/city-pair data, peak-day schedules, cancellations, passenger mix and billable exemptions. Reconcile published totals with the traffic data room and any revised AAI series. Understand whether charter, transit or non-revenue passengers are included in the payment denominator.

Kushinagar illustrates the danger of applying a uniform narrative. The source records only 20 movements for FY2026. Large physical capacity and pilgrimage potential do not justify assuming near-term flying. The model carries the small base forward mechanically and assigns zero scheduled access service until a credible operating case is validated.

Source vintages: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Later revisions may differ. Airport chapters retain all six observations.

BUNDLE OPERATING PERFORMANCE

Post-Covid bundle performance | overview

Four full fiscal years FY2022-FY2025, full FY2026 and the latest available calendar-2026 operating snapshot. FY2022 means April 2021-March 2022. These are pro-forma airport sums in the proposed groups, not historic concession-company accounts.

Group	FY22 pax	FY23 pax	FY24 pax	FY25 pax	FY26 pax
B1	2,324,235	3,947,606	4,959,450	5,185,156	5,507,120
B2	1,511,999	2,692,765	3,286,989	3,752,714	3,105,073
B3	1,766,686	2,774,123	3,334,735	4,357,384	4,700,829
B4	1,180,048	2,433,527	2,634,604	2,952,491	3,417,200
B5	1,658,146	2,720,484	3,056,033	3,272,433	3,391,650

Group	Apr-Sep 2026 pax	Apr-Sep 2025 pax	Matched change
B1	2,319,856	2,664,695	-12.9%
B2	1,342,886	1,418,958	-5.4%
B3	1,925,720	2,179,213	-11.6%
B4	1,308,962	1,767,984	-26.0%
B5	1,580,573	1,640,638	-3.7%

September 2026 is the latest month listed on the AAI Traffic News page checked 3 November 2026. No October figures assumed. The 2026 six-month period is FY2027 YTD and is not the full FY2026 column. No YTD count is multiplied by two to claim a reported annual result.

Recovery CAGR from FY2022 includes a pandemic-affected base. It is shown for interpretation and excluded from long-term growth extrapolation. The FY2027 demand case combines actual six-month passengers with the prior-year remaining six months changed by assumed +2% base, -5% down or +7% up, with final growth rounded to 0.5 percentage points.

Financial and service-performance measures require separate audited evidence: no reported airport revenue, EBITDA, capital outturn, airline seat load factor, delays, queues or customer-satisfaction values have been invented from traffic counts.

Official AAI Traffic News index

BUNDLE OPERATING PERFORMANCE

B1 | post-Covid performance snapshot

Airports: BBI + HBX. Full fiscal years end on 31 March. International share is derived from the reported total less domestic counts in the same source vintage.

FY	Passengers	Pax YoY	Intl share	Aircraft movements	Freight MT
2022	2,324,235	37.4%	0.0%	24,223	10,549.0
2023	3,947,606	69.8%	0.0%	36,487	9,870.0
2024	4,959,450	25.6%	1.8%	40,658	10,047.0
2025	5,185,156	4.6%	2.4%	41,539	9,370.3
2026	5,507,120	6.2%	2.8%	43,828	9,847.8

Reported financial performance | Rs crore

FY	Revenue	Expenditure	Reported P/L	Source
2022	N/A	N/A	-38.25	PIB_PROFIT_2023
2023	N/A	N/A	-11.41	PIB_PROFIT_2023
2024	207.83	216.05	-8.22	AAI_AR_2024
2025	312.17	222.74	89.44	AAI_AR_2025
2026	N/A	N/A	N/A	Not verified

FY2022-23 profit/loss uses the official parliamentary reply; revenue/expenditure are not supplied there. FY2024-25 uses AAI airport-wise profitability statements. FY2026 airport financial outturn is not verified. N/A is not zero. These accounting results do not establish EBITDA or future concession cash flow; reconcile airport/ANS scope, allocations, depreciation, financing, tax and obligations before underwriting.

Latest matched six-month period: April-September 2026

Metric	Current period	Same 2025 period	Change
Passenger movements	2,319,856	2,664,695	-12.9%
Aircraft movements	19,056	22,097	-13.8%
Freight MT	5,286.2	4,899.8	7.9%

Airport	Apr-Sep 2026 pax	Matched 2025 pax	Change
BBI	2,128,821	2,490,913	-14.5%
HBX	191,035	173,782	9.9%

BUNDLE OPERATING PERFORMANCE

B1 | post-Covid performance snapshot (continued)

FY2022-FY2025 passenger recovery CAGR: 30.7%. Latest matched-period passenger change: -12.9%. The divergence is a reason to avoid extrapolating post-pandemic recovery. Confirm airline schedules, fares, seasonality and airport constraints before pricing a volume recovery.

Passengers per aircraft movement is a throughput ratio, not airline seat occupancy. Freight tonnes do not establish cargo earnings. Preserve transfer-price, cost-outturn and service-quality evidence requirements rather than describing modelled cash flows as reported operating performance.

Sources: AAI-MAR2022; AAI-MAR2024; AAI-MAR2026; AAI_AR_2024; AAI_AR_2025; Mar2k22Annex2; Mar2k22Annex4; Mar2k24Annex2; Mar2k24Annex4; Mar2k26Annex2_0; Mar2k26Annex4; PIB_PROFIT_2023; Sep2k26Annex_2; Sep2k26Annex_3; Sep2k26Annex_4

BUNDLE OPERATING PERFORMANCE

B2 | post-Covid performance snapshot

Airports: ATQ + DHM. Full fiscal years end on 31 March. International share is derived from the reported total less domestic counts in the same source vintage.

FY	Passengers	Pax YoY	Intl share	Aircraft movements	Freight MT
2022	1,511,999	57.5%	22.6%	16,227	1,578.0
2023	2,692,765	78.1%	28.0%	23,307	2,239.0
2024	3,286,989	22.1%	29.9%	25,856	3,358.0
2025	3,752,714	14.2%	30.7%	26,900	3,362.2
2026	3,105,073	-17.3%	32.1%	21,428	3,660.6

Reported financial performance | Rs crore

FY	Revenue	Expenditure	Reported P/L	Source
2022	N/A	N/A	-44.20	PIB_PROFIT_2023
2023	N/A	N/A	-37.87	PIB_PROFIT_2023
2024	236.64	217.57	19.07	AAI_AR_2024
2025	296.29	221.42	74.87	AAI_AR_2025
2026	N/A	N/A	N/A	Not verified

FY2022-23 profit/loss uses the official parliamentary reply; revenue/expenditure are not supplied there. FY2024-25 uses AAI airport-wise profitability statements. FY2026 airport financial outturn is not verified. N/A is not zero. These accounting results do not establish EBITDA or future concession cash flow; reconcile airport/ANS scope, allocations, depreciation, financing, tax and obligations before underwriting.

Latest matched six-month period: April-September 2026

Metric	Current period	Same 2025 period	Change
Passenger movements	1,342,886	1,418,958	-5.4%
Aircraft movements	10,485	10,579	-0.9%
Freight MT	2,143.9	1,898.4	12.9%

Airport	Apr-Sep 2026 pax	Matched 2025 pax	Change
ATQ	1,247,274	1,332,725	-6.4%
DHM	95,612	86,233	10.9%

BUNDLE OPERATING PERFORMANCE

B2 | post-Covid performance snapshot (continued)

FY2022-FY2025 passenger recovery CAGR: 35.4%. Latest matched-period passenger change: -5.4%. The divergence is a reason to avoid extrapolating post-pandemic recovery. Confirm airline schedules, fares, seasonality and airport constraints before pricing a volume recovery.

Passengers per aircraft movement is a throughput ratio, not airline seat occupancy. Freight tonnes do not establish cargo earnings. Preserve transfer-price, cost-outturn and service-quality evidence requirements rather than describing modelled cash flows as reported operating performance.

Sources: AAI-MAR2022; AAI-MAR2024; AAI-MAR2026; AAI_AR_2024; AAI_AR_2025; Mar2k22Annex2; Mar2k22Annex4; Mar2k24Annex2; Mar2k24Annex4; Mar2k26Annex2_0; Mar2k26Annex4; PIB_PROFIT_2023; Sep2k26Annex_2; Sep2k26Annex_3; Sep2k26Annex_4

BUNDLE OPERATING PERFORMANCE

B3 | post-Covid performance snapshot

Airports: VNS + GAY + KBK. Full fiscal years end on 31 March. International share is derived from the reported total less domestic counts in the same source vintage.

FY	Passengers	Pax YoY	Intl share	Aircraft movements	Freight MT
2022	1,766,686	15.0%	3.2%	16,982	4,345.0
2023	2,774,123	57.0%	6.5%	21,725	4,729.0
2024	3,334,735	20.2%	6.6%	23,301	4,721.0
2025	4,357,384	30.7%	5.1%	29,269	6,033.8
2026	4,700,829	7.9%	5.0%	30,826	6,843.6

Reported financial performance | Rs crore

FY	Revenue	Expenditure	Reported P/L	Source
2022	N/A	N/A	-73.28	PIB_PROFIT_2023
2023	N/A	N/A	-78.26	PIB_PROFIT_2023
2024	163.08	227.21	-64.13	AAI_AR_2024
2025	201.20	226.31	-25.12	AAI_AR_2025
2026	N/A	N/A	N/A	Not verified

FY2022-23 profit/loss uses the official parliamentary reply; revenue/expenditure are not supplied there. FY2024-25 uses AAI airport-wise profitability statements. FY2026 airport financial outturn is not verified. N/A is not zero. These accounting results do not establish EBITDA or future concession cash flow; reconcile airport/ANS scope, allocations, depreciation, financing, tax and obligations before underwriting.

Latest matched six-month period: April-September 2026

Metric	Current period	Same 2025 period	Change
Passenger movements	1,925,720	2,179,213	-11.6%
Aircraft movements	11,862	14,330	-17.2%
Freight MT	3,130.4	3,695.8	-15.3%

Airport	Apr-Sep 2026 pax	Matched 2025 pax	Change
VNS	1,839,690	2,059,687	-10.7%
GAY	86,030	119,506	-28.0%
KBK	0	20	-100.0%

BUNDLE OPERATING PERFORMANCE

B3 | post-Covid performance snapshot (continued)

FY2022-FY2025 passenger recovery CAGR: 35.1%. Latest matched-period passenger change: -11.6%. The divergence is a reason to avoid extrapolating post-pandemic recovery. Confirm airline schedules, fares, seasonality and airport constraints before pricing a volume recovery.

Passengers per aircraft movement is a throughput ratio, not airline seat occupancy. Freight tonnes do not establish cargo earnings. Preserve transfer-price, cost-outturn and service-quality evidence requirements rather than describing modelled cash flows as reported operating performance.

Sources: AAI-MAR2022; AAI-MAR2024; AAI-MAR2026; AAI_AR_2024; AAI_AR_2025; Mar2k22Annex2; Mar2k22Annex4; Mar2k24Annex2; Mar2k24Annex4; Mar2k26Annex2_0; Mar2k26Annex4; PIB_PROFIT_2023; Sep2k26Annex_2; Sep2k26Annex_3; Sep2k26Annex_4

BUNDLE OPERATING PERFORMANCE

B4 | post-Covid performance snapshot

Airports: TRZ + TIR. Full fiscal years end on 31 March. International share is derived from the reported total less domestic counts in the same source vintage.

FY	Passengers	Pax YoY	Intl share	Aircraft movements	Freight MT
2022	1,180,048	66.6%	34.5%	15,036	5,300.0
2023	2,433,527	106.2%	46.6%	23,942	6,447.0
2024	2,634,604	8.3%	49.5%	25,231	6,630.0
2025	2,952,491	12.1%	47.4%	29,441	6,611.6
2026	3,417,200	15.7%	40.8%	32,087	7,519.8

Reported financial performance | Rs crore

FY	Revenue	Expenditure	Reported P/L	Source
2022	N/A	N/A	-58.24	PIB_PROFIT_2023
2023	N/A	N/A	-18.52	PIB_PROFIT_2023
2024	187.56	247.86	-60.30	AAI_AR_2024
2025	217.67	328.39	-110.72	AAI_AR_2025
2026	N/A	N/A	N/A	Not verified

FY2022-23 profit/loss uses the official parliamentary reply; revenue/expenditure are not supplied there. FY2024-25 uses AAI airport-wise profitability statements. FY2026 airport financial outturn is not verified. N/A is not zero. These accounting results do not establish EBITDA or future concession cash flow; reconcile airport/ANS scope, allocations, depreciation, financing, tax and obligations before underwriting.

Latest matched six-month period: April-September 2026

Metric	Current period	Same 2025 period	Change
Passenger movements	1,308,962	1,767,984	-26.0%
Aircraft movements	12,466	17,162	-27.4%
Freight MT	3,836.4	3,656.5	4.9%

Airport	Apr-Sep 2026 pax	Matched 2025 pax	Change
TRZ	933,118	1,154,755	-19.2%
TIR	375,844	613,229	-38.7%

BUNDLE OPERATING PERFORMANCE

B4 | post-Covid performance snapshot (continued)

FY2022-FY2025 passenger recovery CAGR: 35.8%. Latest matched-period passenger change: -26.0%. The divergence is a reason to avoid extrapolating post-pandemic recovery. Confirm airline schedules, fares, seasonality and airport constraints before pricing a volume recovery.

Passengers per aircraft movement is a throughput ratio, not airline seat occupancy. Freight tonnes do not establish cargo earnings. Preserve transfer-price, cost-outturn and service-quality evidence requirements rather than describing modelled cash flows as reported operating performance.

Sources: AAI-MAR2022; AAI-MAR2024; AAI-MAR2026; AAI_AR_2024; AAI_AR_2025; Mar2k22Annex2; Mar2k22Annex4; Mar2k24Annex2; Mar2k24Annex4; Mar2k26Annex2_0; Mar2k26Annex4; PIB_PROFIT_2023; Sep2k26Annex_2; Sep2k26Annex_3; Sep2k26Annex_4

BUNDLE OPERATING PERFORMANCE

B5 | post-Covid performance snapshot

Airports: RPR + IXU. Full fiscal years end on 31 March. International share is derived from the reported total less domestic counts in the same source vintage.

FY	Passengers	Pax YoY	Intl share	Aircraft movements	Freight MT
2022	1,658,146	39.7%	0.0%	17,891	6,865.0
2023	2,720,484	64.1%	0.0%	25,260	6,799.0
2024	3,056,033	12.3%	0.1%	24,689	5,692.0
2025	3,272,433	7.1%	0.0%	26,754	5,994.6
2026	3,391,650	3.6%	0.0%	27,292	6,951.1

Reported financial performance | Rs crore

FY	Revenue	Expenditure	Reported P/L	Source
2022	N/A	N/A	-63.10	PIB_PROFIT_2023
2023	N/A	N/A	-42.95	PIB_PROFIT_2023
2024	137.20	171.26	-34.05	AAI_AR_2024
2025	156.15	170.71	-14.55	AAI_AR_2025
2026	N/A	N/A	N/A	Not verified

FY2022-23 profit/loss uses the official parliamentary reply; revenue/expenditure are not supplied there. FY2024-25 uses AAI airport-wise profitability statements. FY2026 airport financial outturn is not verified. N/A is not zero. These accounting results do not establish EBITDA or future concession cash flow; reconcile airport/ANS scope, allocations, depreciation, financing, tax and obligations before underwriting.

Latest matched six-month period: April-September 2026

Metric	Current period	Same 2025 period	Change
Passenger movements	1,580,573	1,640,638	-3.7%
Aircraft movements	12,950	13,394	-3.3%
Freight MT	3,592.5	3,240.6	10.9%

Airport	Apr-Sep 2026 pax	Matched 2025 pax	Change
RPR	1,302,333	1,335,857	-2.5%
IXU	278,240	304,781	-8.7%

BUNDLE OPERATING PERFORMANCE

B5 | post-Covid performance snapshot (continued)

FY2022-FY2025 passenger recovery CAGR: 25.4%. Latest matched-period passenger change: -3.7%. The divergence is a reason to avoid extrapolating post-pandemic recovery. Confirm airline schedules, fares, seasonality and airport constraints before pricing a volume recovery.

Passengers per aircraft movement is a throughput ratio, not airline seat occupancy. Freight tonnes do not establish cargo earnings. Preserve transfer-price, cost-outturn and service-quality evidence requirements rather than describing modelled cash flows as reported operating performance.

Sources: AAI-MAR2022; AAI-MAR2024; AAI-MAR2026; AAI_AR_2024; AAI_AR_2025; Mar2k22Annex2; Mar2k22Annex4; Mar2k24Annex2; Mar2k24Annex4; Mar2k26Annex2_0; Mar2k26Annex4; PIB_PROFIT_2023; Sep2k26Annex_2; Sep2k26Annex_3; Sep2k26Annex_4

MARKET METHOD

Catchment intelligence & flyer measurement

A geographic catchment is a starting hypothesis, not measured flyer demand. The HTML includes primary/secondary assumed rings, candidate cities and competitor locations. Rings are geographic distances, not road-time isochrones. Catchment population is not invented when no validated population and origin data are available.

Evidence step	Required output	Bid treatment
Flight intercept / booking origins	District / postcode sample weighted by flights and season	Validate disjoint exposure shares; do not sum overlapping rings
Surface access trial	Travel-time distribution, fare, luggage and reliability	Support mode capture and frequency decisions
Alternative airport comparison	Current fares, schedules, access cost and corporate policies	Measure leakage rather than infer it from distance
Incrementality survey	Would the trip otherwise occur or use another airport?	Credit only supported incremental airport movements
Population / propensity study	Current population, income and observed trip rates	Unique flyers require explicit trips-per-person assumptions

Passenger movements count journeys through the airport. A return trip ordinarily contributes two airport movements; converting movements into unique travellers requires trips per person and an origin/transfer definition. The surface model deliberately uses movements and permits at most one access ride per addressed movement. It does not turn bus users into additional air passengers.

The proposed route exposures are disjoint within each airport and cannot total above 100%. They remain assumptions to replace with surveys. Markets at adjacent airports overlap: a sponsor cannot add their apparent catchment populations or unique flyers without removing duplication.

Location context: OurAirports public-domain community data and official district/airport pages; no guarantee of current competing airline service.

DEVELOPMENT APPRAISAL

Capital scope, phasing & capacity release

Initial capex is included in lifecycle capex. At the default 50-year term, the initial amount is spent in equal thirds at t0 and operating years 1 and 2. Remaining lifecycle works are split into four base-price tranches at years 10, 20, 30 and 40. These are timing assumptions, not an approved development programme.

The default registered-project mode holds the annual envelope at the greater of the dated reference and FY2026 observed throughput. Varanasi uses its approved 9.9 MPPA airport target from an explicitly assumed FY2031 plus delay. Other capacity improvements require an adopted project. The opening date is not official evidence. Existing reference capacity is not a current service-quality certificate.

Capital package	Pricing control	Release gate
Safety and mandatory compliance	Do not cut scope to manufacture a fee	Certified inventory, standard and statutory obligation
Already-paid assets / transferred CWIP	Separate consideration from remaining works	Handover certificate, defect assignment and unpaid commitments
Terminal / stands / utilities	Align opening dates and processing bottlenecks	Integrated systems and peak-hour test
Discretionary commercial / ground pilots	Stage on contracted net cash receipts	Rights, survey and positive procurement case
Later lifecycle and handback	Retain cash and commit funding before works	Condition survey, remaining-life standard and lender approval

Lifecycle maintenance spending releases no automatic capacity in the default mode. Explicitly adopted candidates add equity-funded spend and capacity only at their entered commissioning date plus delay. The optional legacy benchmark still illustrates the former quarter-ultimate-capacity proxy, but it does not determine this report snapshot. All inherited budgets require reconciliation against approved authority schemes to avoid overlap.

All capital budgets, timing and terminal growth links are assumptions. No approval of a runway extension, land parcel or city transport project is asserted.

FINANCIAL ARCHITECTURE

Funding sustainability & distribution discipline

Debt funds 60% of initial airport works by default. It does not fund consideration, later lifecycle or the transport programme. Interest is 9%, charged on opening debt plus half-year in-period draws. Equal principal starts when phase 1 commissions and continues for 15 years. Repayment must fit inside the assumed operating term.

Cash priority	Mechanism	Remaining risk
Operations and debt	Revenue less cash cost, fee, tax, working capital and debt service	Flat yield proxies and annual DSCR hide intra-year volatility
Capital obligations	Pay capex and draw eligible initial debt	Later mandatory works can cause large equity calls
Debt reserve	Maintain six months of current-year service by default	Proxy is not a forward-looking lender DSRA covenant
Future works retention	Retain up to next two years of unfunded capex	Insufficient retained cash still requires new sponsor equity
Shareholder distribution	Release only cash above reserve / retention target	Distributions may be followed by later calls
Concession expiry	Release working capital and remaining cash, no salvage	Actual handback and residual obligations require validation

The equity return uses distributions less injections, discounted at 15%. It therefore reflects reserve funding and delayed distributions. Gross life-of-concession equity calls are shown separately from early equity through phase 1, and neither is confused with a present-day investment amount. An optional gross equity budget can constrain the bid; zero means unspecified, not that funding is unnecessary.

The model assumes no cash interest, refinancing, rescue borrowing or loss carry-forward. These simplify the appraisal and must be replaced by a lender-grade cash waterfall and tax schedule. DSCR excludes later capital spend, so adequate DSCR alone cannot establish that a future works programme is fundable.

BUSINESS APPRAISAL

Operating model & commercial value creation

A sustainable operator should earn core airport returns within verified tariffs, improve commercial conversion, contain discretionary fixed commitments and preserve capital for safety and renewal. The base case contains no guaranteed pooled RAB, property sale, new cargo contract, exclusive route or airline night-stop agreement.

Workstream	Action	Evidence to underwrite value
Aeronautical	Airport-specific charge model and tariff-control-period forecast	Applicable order, tariff categories, rebates and regulatory treatment
Retail / food / advertising	Competitive concessions, measured footfall and conversion	Net airport receipt, fit-out and tendered minimum guarantee
Parking / access	Transparent price, reliability and operator procurement	No double count of ground receipts in non-aero yield
Cargo / logistics	Customer-backed small modules before speculative expansion	Volume contracts, land right, security and equipment cost
Shared services	Procure technology, finance and vendors across group where permitted	Service-level and statutory staffing constraints
Energy / water	Meter and tender projects with an actual payback case	Baseline, permissions, contracted savings and maintenance

The report separately tests a turnaround case: Rs 100 extra net non-aero yield per passenger, 10% lower fixed operating cost and 20% lower post-initial lifecycle budget. Initial works and consideration do not fall. These are opportunity assumptions, not proven savings or tariff entitlements.

A positive opportunity-case ceiling does not justify paying for the upside today. Release its value only after contracts, engineering scope and permissions support it. Establish a downside plan that still maintains mandatory staffing, safety, accessibility and the passenger experience.

SURFACE ACCESS

Ground transport: project and procurement model

The 22 proposed links cover two city corridors per airport. Improve airport-to-rail/bus interchange, major catchment access and arrival reliability using licensed partner vehicles. Airport investment is limited to bays, passenger information and integration; operator fleet, municipal roads, metro and subsidies are outside airport cash flow.

Commercial identity	Calculation
Addressable rides	Airport movements x disjoint route exposure x assumed capture
Scheduled seats	Round trips/day x 2 directions x seats x operating days
Carried rides	Lesser of addressable rides and seats; no new airport traffic added
Operator contribution	Fare revenue less airport receipt and rupees/km service cost
Airport receipt	Only the assumed per-ride net fee; excluded when operator contribution is negative
Airport investment	Small incremental bay / integration capex plus annual programme cost

A positive operator contribution is before fleet financing, overhead, tax and profit. It does not establish operator bankability. Break-even load factors above 100% imply the proposed fare or frequency cannot cover even the simplified service cost. Do not bridge the gap with an unapproved minimum-revenue guarantee.

Proposed pilot gates are contribution break-even load plus 10 percentage points, at least 95% on-time airport arrival, and acceptable luggage/accessibility service. Verify them over three months before expanding frequency. Road-time targets are objectives; they must never override safe operating practices or regulated driving hours.

Bhubaneswar should improve and coordinate evidenced Cuttack/Puri express services. Amritsar must preserve the free SGPC pilgrim bus while testing separate city/rail demand. Kushinagar receives no fixed scheduled bus or receipt credit at the recorded traffic base.

GEOSPATIAL APPRAISAL

Blender, Three.js & illustrative OLS

The digital twin uses eleven Blender-authored GLBs with OSM community footprints, rendered in the HTML with embedded Three.js. Dated AAI physical runway ends define local east/north reference frames; community footprints are transformed into that frame. LOD 200 system banks use reported counts with schematic geometry and placement. Modelled heights are predominantly assumptions; terrain is flattened. The twin is a planning interface, not a surveyed aerodrome model.

Surface / layer	Illustrative parameter or limitation
Approach	280 m inner width; 60 m setback; 15% divergence; 2% then 2.5% slopes
Take-off climb	180 m inner width; 12.5% divergence; 1,200 m final width; 2% slope
Transitional	140 m strip half-width; 14.3% slope
Inner horizontal	Simplified 4,000 m circular radius; 45 m height
Conical	5% slope; additional height 100 m
Obstructions	Worst sampled footprint point; assumed height and flat ground
Missing certified layers	Terrain/threshold datums, CCZM, CNS, PANS-OPS, trees, cranes and survey

These defaults are explicit analytical assumptions. Actual OLS dimensions depend on runway characteristics and the applicable official standard and procedure. A positive margin in the browser is not height clearance. A negative margin is a review flag, not a legal determination that a building violates a certified surface.

Use the twin to identify survey priorities, test hypothetical massing and discuss city interfaces. Obtain official thresholds, runway dimensions, geoid/vertical datum, declared distances, obstacle surveys and procedure protection. Resolve land ownership and height approvals separately before transferring any geometry into a construction or revenue plan.

Geometry: OpenStreetMap contributors, ODbL 1.0; models authored in Blender 5.2.2 LTS; Three.js r170 under MIT. Full raw-source hashes and manifest are supplied locally.

RISK METHODOLOGY

Actual simulations & fee sensitivity

The default appraisal contains 500 actual financial paths per bundle, 2,500 paths in total, using seed 20261101. The same macro draw sequence is used for every group. Every path recalculates capacity, capex, debt, reserves, shareholder cash flows and a fee limit. No fixed histogram is presented as a simulation.

Assumed draw	Low / mode / high
Traffic level multiplier	0.75 / 1.00 / 1.15
Growth delta, percentage points	-1.5 / 0 / +1.0 in each calendar phase
Aero yield multiplier	0.85 / 1.00 / 1.05
Non-aero yield multiplier	0.70 / 1.00 / 1.15
Operating cost multiplier	0.95 / 1.00 / 1.15
Capex multiplier	0.95 / 1.00 / 1.25
Interest delta, percentage points	-0.5 / 0 / +2.5
Extra delay 0 / 1 / 2 years	Assumed discrete weights 60% / 30% / 10%

Triangular variables are independent within a draw. Their ranges and delay weights are analyst assumptions, not calibrated probability distributions. Tail correlation, discrete airline failure, regulation, inflation mismatch and refinancing risk are not fully represented. The sample pass rate must not be read as an investment success probability or auction win chance.

A path is feasible only if equity NPV is non-negative, DSCR meets its floor, debt repays and any explicit gross equity budget is met. Infeasible-at-zero fee limits remain null. Unconditional fee percentiles use zero for these paths, with infeasible counts separately disclosed. The model does not treat a zero sentinel as proof that a zero-fee concession works.

REPRODUCIBILITY

Default financial assumptions

Parameter	Default	Status
First operating FY (ending March)	2,028.00	Illustrative
Operating years	50.00	Illustrative
Traffic CAGR through FY2035 (%)	7.00	Illustrative
Traffic CAGR FY2036-2047 (%)	4.00	Illustrative
Traffic CAGR FY2048 onward (%)	2.00	Illustrative
Traffic level multiplier (%)	100.00	Illustrative
Aero revenue / passenger, first FY (₹)	650.00	Illustrative
Non-aero revenue / passenger, first FY (₹)	200.00	Illustrative
Annual aero & non-aero yield escalation (%)	4.00	Illustrative
Variable operating cost / passenger, first FY (₹)	220.00	Illustrative
Fixed operating cost / airport, first FY (₹ Cr)	25.00	Illustrative
Annual operating cost escalation (%)	4.00	Illustrative
Domestic-equivalent bid fee, first FY (₹)	100.00	Illustrative
International passenger fee multiplier (×)	2.00	Illustrative
Billable share of throughput (%)	100.00	Illustrative
Annual fee escalation (%)	4.00	Illustrative
Capital budget multiplier (%)	100.00	Illustrative
Annual capex escalation from first FY prices (%)	4.00	Illustrative
Debt share of initial 3-year capex (%)	60.00	Illustrative
Debt interest rate (%)	9.00	Illustrative
Amortisation years, starting operating year 3	15.00	Illustrative
Cash tax rate (%)	25.00	Illustrative
Straight-line depreciation life (years)	20.00	Illustrative
Working capital / annual revenue (%)	5.00	Illustrative
Nominal equity NPV discount rate (%)	15.00	Illustrative
Minimum screening DSCR (×)	1.20	Illustrative

The bid overlay replaces workbench upfront and extra-land fields with one total Rs 500 crore allowance. It replaces ultimate-capacity-from-year-one with phased capacity. All yields/costs are first-operating-FY rates; capex is treated as first-operating-FY base prices. The workbench remains available as an unphased comparison.

IMPLEMENTATION

Delivery programme & investment gates

Stage	Work product	Capital / price gate
Before binding bid	Final tender/addenda register; tariff build; scope and land reconciliation	No binding price from illustrative allowances
First 90 days / mobilisation	Asset condition baseline, operating standards, procurement and cash forecast	Freeze mandatory scope; no speculative parcel spend
Initial works period	Certified milestones, project risk reserve, integrated capacity plan	Debt draws only against eligible initial works
Access pilot period	Passenger O&D, actual road times, licensed operator trial	No airport fleet or minimum revenue guarantee by default
Before phase 1 opening	Safety approvals, queue/stand/utility commissioning, staffing	Capacity credit after actual handover and integration
Lifecycle programme	Condition surveys, forecast peaks, procurement and funding commitments	Retain cash, revisit caps and secure later equity
Concession expiry	Handback condition study, remaining-life works and liability release	No assumed salvage value or cost-free handback

Suggested expansion triggers are 80% annual utilisation for design procurement and delivery before 90%, supported by two peak seasons and an integrated bottleneck study. These are management assumptions. Annual passenger ratios cannot substitute for terminal peak-hour, stand, runway or security processing evidence.

Assign accountable owners to commercial, engineering, finance and statutory interfaces. Record the source, version, unit, date and confidence of each input. When scope changes, update capacity and capex in the same model revision, then rerun funding and fee limits. Avoid price decisions from a chart whose associated construction budget has not been committed.

GOVERNANCE

Investment committee release checklist

Gate	Evidence required	Current status
Tender	Final RFP, concession, schedules, addenda and lot structure	Not verified
Fee denominator	Domestic/international treatment, exemptions, transit and indexation	Assumed
Consideration	Asset/CWIP price, liabilities, payment schedule and tax basis	Scenario only
Capex / land	Mandatory works, already-funded assets, land and handback inventory	Unverified legacy budgets
Revenue	Airport-specific tariff and net commercial contracts	Yield proxies
Demand / capacity	Audited base, airline risk and commissioned system capacity	Reported counts / assumed phasing
Safeguarding	Official OLS/CNS/PANS-OPS and certified obstacle/terrain survey	Illustrative geometry
Ground access	Permits, tendered operator economics and measured travel times	Pilot assumptions
Funding	Committed equity, lender term sheet and covenant model	Illustrative capital structure
Authority	Signed sponsor mandate, investment approval and submission controls	Outside this analytical report

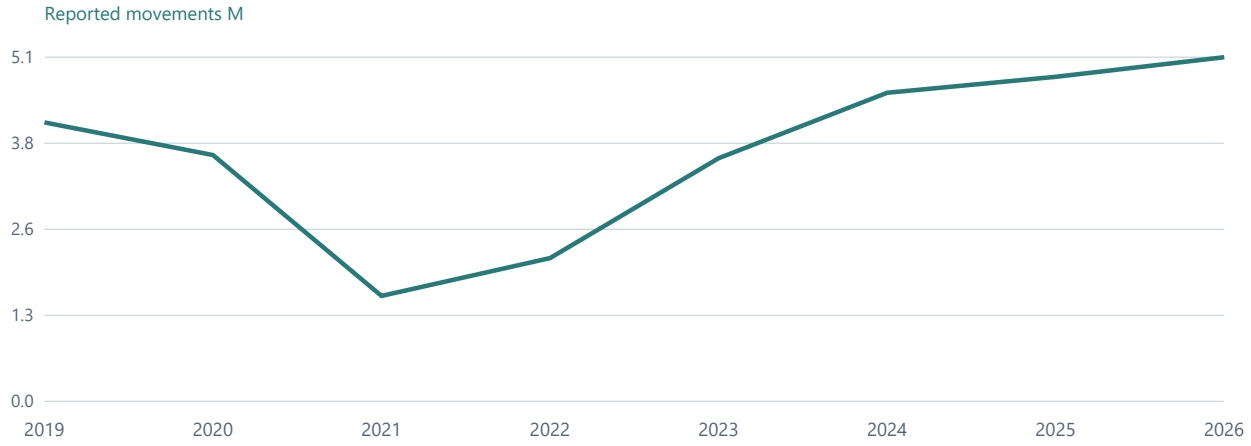
A release gate is not automatically cleared because a numeric screen passes. The sponsor should document any accepted exception, quantify its value-at-risk and nominate the party carrying it. Avoid contractual representations about land availability, completion or tariff pooling without legal and technical evidence.

The recommended current action is to continue data-room and scope diligence, prioritise the most capital-efficient research cases and use conditional price bands only for negotiation. Once obligations are known, re-run the model and produce a dated investment committee update rather than reuse this snapshot as a final valuation.

AIRPORT APPRAISAL

BBI | Bhubaneswar | market

Reported FY2026 movements: 5,130,834; international share: 3.0%. The airport belongs to internal group B1. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	4,158,731	AAI_TRAFFIC_2020
2020	3,672,246	AAI_TRAFFIC_2020
2021	1,571,933	AAI-MAR2022
2022	2,135,893	AAI-MAR2022
2023	3,624,905	AAI-MAR2024
2024	4,600,615	AAI-MAR2024
2025	4,838,751	AAI-MAR2026
2026	5,130,834	AAI-MAR2026

Government, business, IT, residents and Puri-linked tourism provide several demand segments. The annual series supports scale, but it does not reveal trip purpose, district origins or airlines. Puri-linked access can redistribute surface modes without creating incremental flying.

The FY2025-FY2026 change is 6.0%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Bhubaneswar, Cuttack, Khordha, Puri. Secondary candidates: Jagatsinghpur, Kendrapara, Jajpur, Nayagarh. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

BBI | Bhubaneswar | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 2,355 Cr	Inherited; unverified
Lifecycle including initial	Rs 6,950 Cr	Inherited; unverified
Airfield / terminal classification	Rs 1,680 / 3,820 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 910 / 540 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	4.400 MPPA	2022-23 capacity published 7 Aug 2023
Bid model phase 1	4.400 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	26.00 MPPA	Not available from year one

The observed annual throughput exceeds the dated 4.4 MPPA reference. This is a capacity verification and passenger-service issue, not proof that all proposed terminal works are privately fundable. The FY2026-27 budget describes a 4.25 MPPA T3 as planning/tendering, not commissioned capacity; it is not automatically added to the default envelope.

Validate terminal scope and handover, gates, baggage, forecourt and peak-hour queues before runway or real-estate commitments. Reconcile every legacy CWIP amount against AAI-funded work.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: 2022-23 capacity published 7 Aug 2023; Official dated baseline; current commissioning status not verified. T3 is under planning in AAI FY2026-27 capital budget. Phase 1 basis: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

AIRPORT APPRAISAL

BBI | Bhubaneswar | catchment links

Tender retail by actual dwell time and conversion; improve parking and hotel/tour access without paying for a bus fleet. No assumed land bank, exclusivity or development right supports the base price.

Proposed corridor	Road km	Min baseline / target	Context source
Cuttack	35	90 / 65	Official context
Puri	65	120 / 100	Official context

Pilot assumption	Cuttack / Puri
Disjoint exposure %	20 / 15
Mode capture %	15 / 18
Round trips / day	4 / 4
Seats / vehicle	30 / 30
Operating days	350 / 350
Fare Rs / ride	180 / 300
Airport Rs / ride	15 / 20
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	84,000	84,000
Load factor	1.00	1.00
Break-even load factor	0.39	0.43
Operator contribution Cr	0.85	1.35
Airport receipt Cr before viability gate	0.13	0.17

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

Airport access capex assumption: Rs 2.00 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

BBI | Bhubaneswar | city and OLS

BBI | LOD 200 evidence - north up

N



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	2,744 m; dated AAI, current NOTAM not checked
Legacy runway length	2,742 m; unverified
Published-coordinate axis bearing	143.9 degrees
Sampled city footprints / assumed heights	204 / 203
Reference origin	20.25088, 85.81281; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

BBI | Bhubaneswar | appraisal actions

Demand and commercial work programme

Government, business, IT, residents and Puri-linked tourism provide several demand segments. The annual series supports scale, but it does not reveal trip purpose, district origins or airlines. Puri-linked access can redistribute surface modes without creating incremental flying.

Tender retail by actual dwell time and conversion; improve parking and hotel/tour access without paying for a bus fleet. No assumed land bank, exclusivity or development right supports the base price.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

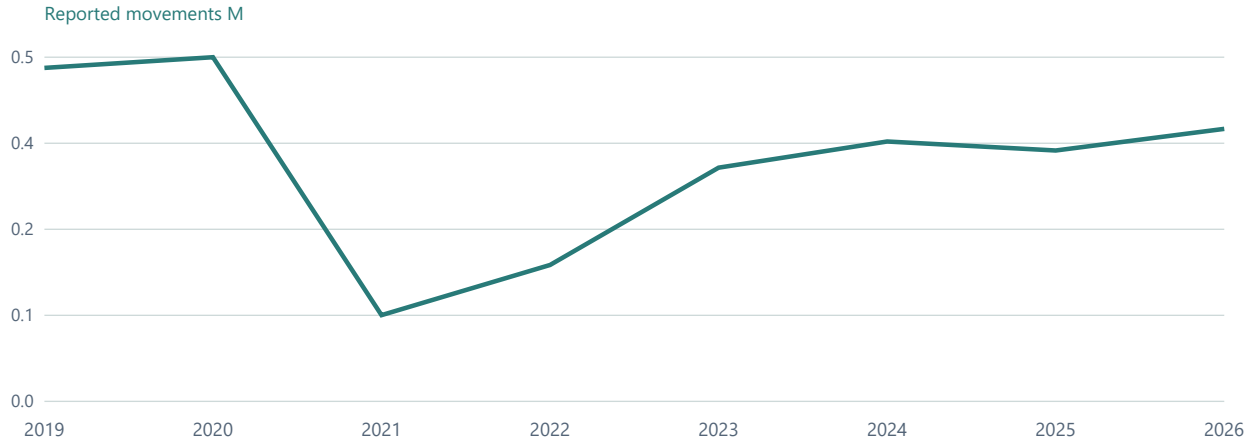
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

HBX | Hubballi Airport | market

Reported FY2026 movements: 376,286; international share: 0.0%. The airport belongs to internal group B1. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	460,462	AAI_TRAFFIC_2020
2020	475,218	AAI_TRAFFIC_2020
2021	119,072	AAI-MAR2022
2022	188,342	AAI-MAR2022
2023	322,701	AAI-MAR2024
2024	358,835	AAI-MAR2024
2025	346,405	AAI-MAR2026
2026	376,286	AAI-MAR2026

Hubballi-Dharwad is an integrated business and education catchment with multiple surface interchanges. Competing airport proximity is relevant, but distance alone does not establish leakage; schedules, fares and corporate travel policies matter.

The FY2025-FY2026 change is 8.6%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Hubballi, Dharwad, Gadag. Secondary candidates: Haveri, Koppal, Bagalkot, North Karnataka. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

HBX | Hubballi Airport | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 370 Cr	Inherited; unverified
Lifecycle including initial	Rs 1,200 Cr	Inherited; unverified
Airfield / terminal classification	Rs 410 / 560 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 140 / 90 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	0.500 MPPA	Legacy dossier assumption; annual capacity unverified
Bid model phase 1	0.500 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	4.50 MPPA	Not available from year one

The 0.5 MPPA annual reference remains an unverified legacy planning figure. The default bid holds the existing reference and observed-throughput envelope until an explicit project is adopted; the ongoing authority expansion must first be reconciled.

Audit terminal commissioning, opening hours, pavement and stand limits, utilities and staff requirements. Treat legacy runway-extension and land claims as diligence questions rather than contracted obligations.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: Legacy dossier assumption; annual capacity unverified; Annual 0.5 Mppa is a legacy assumption. Official 2017 release supports 300 peak-hour passengers, not the annual figure. Phase 1 basis: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

AIRPORT APPRAISAL

HBX | Hubballi Airport | catchment links

Use shared procurement and small flexible concessions with corporate and university feeder bookings. No unsupported night-stop airline commitment or cargo contract is valued.

Proposed corridor	Road km	Min baseline / target	Context source
Hubballi rail / bus interchange	10	40 / 30	Official context
Dharwad / university corridor	25	65 / 50	Official context

Pilot assumption	Hubballi rail / Dharwad
Disjoint exposure %	45 / 35
Mode capture %	18 / 20
Round trips / day	3 / 3
Seats / vehicle	20 / 20
Operating days	350 / 350
Fare Rs / ride	100 / 180
Airport Rs / ride	10 / 12
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	30,479	26,340
Load factor	0.73	0.63
Break-even load factor	0.31	0.41
Operator contribution Cr	0.16	0.15
Airport receipt Cr before viability gate	0.03	0.03

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

Airport access capex assumption: Rs 0.75 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

HBX | Hubballi Airport | city and OLS

HBX | LOD 200 evidence - north up



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	2,600 m; dated AAI, current NOTAM not checked
Legacy runway length	2,600 m; unverified
Published-coordinate axis bearing	82.9 degrees
Sampled city footprints / assumed heights	77 / 74
Reference origin	15.36112, 75.08210; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

HBX | Hubballi Airport | appraisal actions

Demand and commercial work programme

Hubballi-Dharwad is an integrated business and education catchment with multiple surface interchanges. Competing airport proximity is relevant, but distance alone does not establish leakage; schedules, fares and corporate travel policies matter.

Use shared procurement and small flexible concessions with corporate and university feeder bookings. No unsupported night-stop airline commitment or cargo contract is valued.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

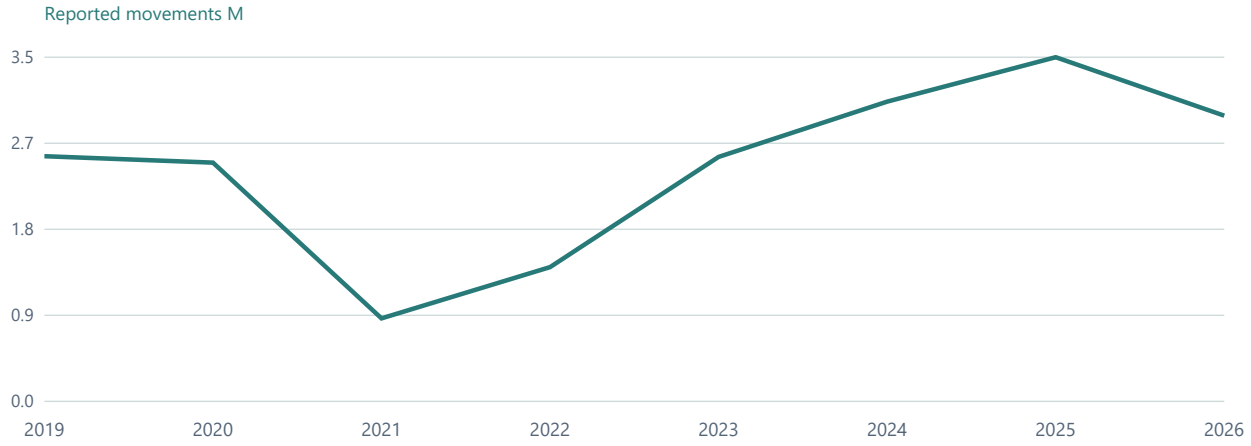
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

ATQ | Amritsar | market

Reported FY2026 movements: 2,941,017; international share: 33.9%. The airport belongs to internal group B2. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	2,523,794	AAI_TRAFFIC_2020
2020	2,457,615	AAI_TRAFFIC_2020
2021	854,352	AAI-MAR2022
2022	1,382,004	AAI-MAR2022
2023	2,516,518	AAI-MAR2024
2024	3,085,598	AAI-MAR2024
2025	3,542,880	AAI-MAR2026
2026	2,941,017	AAI-MAR2026

Amritsar has a substantial reported international passenger share, increasing both commercial opportunity and fee exposure when an assumed international multiplier is applied. Pilgrimage and resident travel require different price and service propositions.

The FY2025-FY2026 change is -17.0%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Amritsar, Tarn Taran, Batala. Secondary candidates: Gurdaspur, Jalandhar, Pathankot and wider Punjab. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

ATQ | Amritsar | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 393 Cr	Inherited; unverified
Lifecycle including initial	Rs 4,120 Cr	Inherited; unverified
Airfield / terminal classification	Rs 820 / 2,350 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 610 / 340 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	4.100 MPPA	8 January 2025 official technical reference
Bid model phase 1	4.100 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	16.50 MPPA	Not available from year one

The dated AAI 8 January 2025 presentation gives 4.1 MPPA existing capacity and a 6.5 MPPA reconfiguration proposal; these replace the undated 4.5 MPPA profile reference for planning. Private funding responsibility, current approved revision and commissioning remain unverified.

Resolve terminal and apron scope, border/security processes, international processing peaks, aircraft mix and any defence interfaces through official aerodrome records. A terminal annual cap is not an hourly movement clearance.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: 8 January 2025 official technical reference; New dated source 4.1 MPPA replaces previous 4.5 planning reference; commissioning/configuration confirmation still required. 6.5 MPPA is an AAI proposal, not automatic model capacity. Phase 1 basis: 8 January 2025 dated 4.1 MPPA reference; no proposed capacity credited by default.

AIRPORT APPRAISAL

ATQ | Amritsar | catchment links

Preserve and coordinate the official-page SGPC free Golden Temple service. Airport receipts in the commercial city pilot relate to separate rail/hotel demand, not a charge imposed on free pilgrim transport.

Proposed corridor	Road km	Min baseline / target	Context source
Amritsar rail / city hotels	15	50 / 35	Official context
Jalandhar	95	160 / 135	Official context

Pilot assumption	Amritsar rail / Jalandhar
Disjoint exposure %	45 / 20
Mode capture %	12 / 15
Round trips / day	4 / 2
Seats / vehicle	30 / 30
Operating days	350 / 350
Fare Rs / ride	140 / 500
Airport Rs / ride	10 / 25
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	84,000	42,000
Load factor	1.00	1.00
Break-even load factor	0.21	0.37
Operator contribution Cr	0.86	1.26
Airport receipt Cr before viability gate	0.08	0.10

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

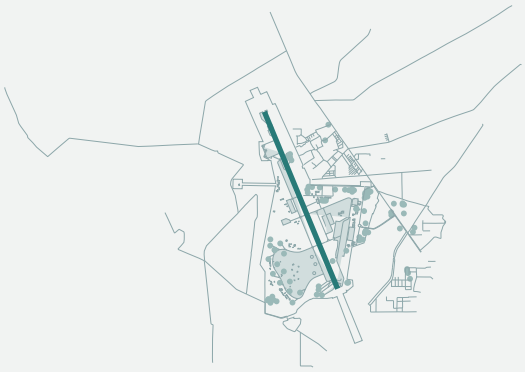
Airport access capex assumption: Rs 2.00 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

ATQ | Amritsar | city and OLS

ATQ | LOD 200 evidence - north up

N



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	3,658 m; dated AAI, current NOTAM not checked
Legacy runway length	3,658 m; unverified
Published-coordinate axis bearing	157.6 degrees
Sampled city footprints / assumed heights	86 / 86
Reference origin	31.71126, 74.79648; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

ATQ | Amritsar | appraisal actions

Demand and commercial work programme

Amritsar has a substantial reported international passenger share, increasing both commercial opportunity and fee exposure when an assumed international multiplier is applied. Pilgrimage and resident travel require different price and service propositions.

Preserve and coordinate the official-page SGPC free Golden Temple service. Airport receipts in the commercial city pilot relate to separate rail/hotel demand, not a charge imposed on free pilgrim transport.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

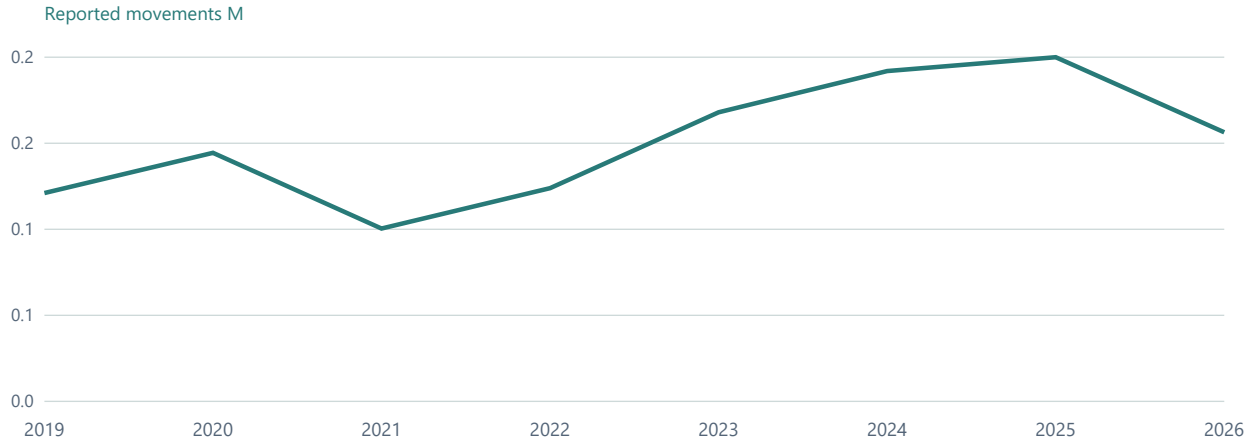
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

DHM | Kangra-Dharamshala Airport | market

Reported FY2026 movements: 164,056; international share: 0.0%. The airport belongs to internal group B2. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	127,019	AAI_TRAFFIC_2020
2020	151,535	AAI_TRAFFIC_2020
2021	105,373	AAI-MAR2022
2022	129,995	AAI-MAR2022
2023	176,247	AAI-MAR2024
2024	201,391	AAI-MAR2024
2025	209,834	AAI-MAR2026
2026	164,056	AAI-MAR2026

Dharamshala, McLeod Ganj and the Kangra-Palampur corridor support leisure and institutional travel candidates. Hilly road access, weather and seasonal demand make pre-booked smaller vehicles a more defensible initial proposition than large fixed-frequency coaches.

The FY2025-FY2026 change is -21.8%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Dharamshala, Kangra, Palampur. Secondary candidates: Hamirpur, Una and selected hill districts. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

DHM | Kangra-Dharamshala Airport | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 130 Cr	Inherited; unverified
Lifecycle including initial	Rs 1,370 Cr	Inherited; unverified
Airfield / terminal classification	Rs 490 / 640 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 150 / 90 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	0.250 MPPA	Legacy dossier assumption; annual capacity unverified
Bid model phase 1	0.250 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	2.20 MPPA	Not available from year one

The 0.25 MPPA annual reference is an unverified legacy assumption. Published simultaneous terminal accommodation cannot be converted into annual capacity without a throughput study. No default capacity uplift is credited without a costed, permitted project.

Commission specialist terrain, runway performance, declared-distance and approach studies. Any extension, displaced threshold or land programme requires its own permissions and cost allocation; the visual twin is not a design solution.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: Legacy dossier assumption; annual capacity unverified; Annual 0.25 Mppa is a legacy assumption. The 2023 SIA describes 100 simultaneous terminal passengers; not an annual capacity certificate. Phase 1 basis: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

AIRPORT APPRAISAL

DHM | Kangra-Dharamshala Airport | catchment links

Limit fixed overheads and aggregate hotel bookings. Test reliable arrival buffers rather than optimistic road times. No expanded-aircraft or runway performance benefit is credited to revenue.

Proposed corridor	Road km	Min baseline / target	Context source
Dharamshala / McLeod Ganj	22	75 / 60	Official context
Kangra / Palampur corridor	40	100 / 80	Official context

Pilot assumption	Dharamshala / Kangra
Disjoint exposure %	45 / 25
Mode capture %	25 / 20
Round trips / day	2 / 1
Seats / vehicle	12 / 12
Operating days	350 / 350
Fare Rs / ride	300 / 450
Airport Rs / ride	15 / 20
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	16,800	8,203
Load factor	1.00	0.98
Break-even load factor	0.35	0.43
Operator contribution Cr	0.31	0.20
Airport receipt Cr before viability gate	0.03	0.02

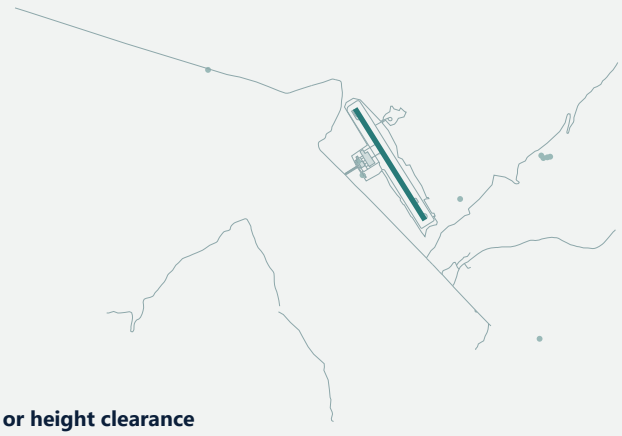
Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

Airport access capex assumption: Rs 0.75 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

DHM | Kangra-Dharamshala Airport | city and OLS

DHM | LOD 200 evidence - north up



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	1,376 m; dated AAI, current NOTAM not checked
Legacy runway length	1,372 m; unverified
Published-coordinate axis bearing	148.0 degrees
Sampled city footprints / assumed heights	9 / 9
Reference origin	32.16491, 76.26305; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

DHM | Kangra-Dharamshala Airport | appraisal actions

Demand and commercial work programme

Dharamshala, McLeod Ganj and the Kangra-Palampur corridor support leisure and institutional travel candidates. Hilly road access, weather and seasonal demand make pre-booked smaller vehicles a more defensible initial proposition than large fixed-frequency coaches.

Limit fixed overheads and aggregate hotel bookings. Test reliable arrival buffers rather than optimistic road times. No expanded-aircraft or runway performance benefit is credited to revenue.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

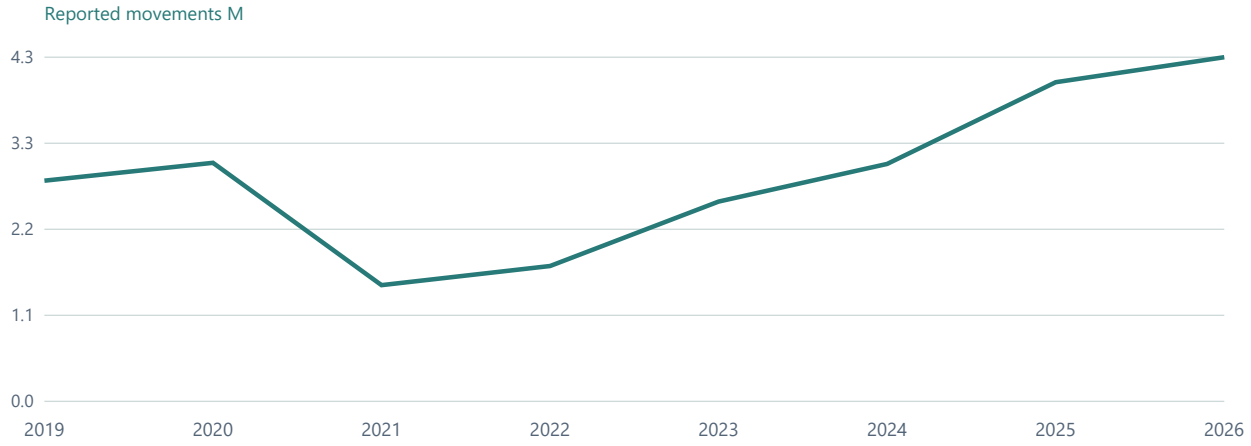
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

VNS | Varanasi | market

Reported FY2026 movements: 4,343,347; international share: 3.3%. The airport belongs to internal group B3. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	2,785,015	AAI_TRAFFIC_2020
2020	3,010,702	AAI_TRAFFIC_2020
2021	1,466,718	AAI-MAR2022
2022	1,708,220	AAI-MAR2022
2023	2,521,442	AAI-MAR2024
2024	2,996,698	AAI-MAR2024
2025	4,027,810	AAI-MAR2026
2026	4,343,347	AAI-MAR2026

Varanasi is the largest traffic base in its group and is exposed to pilgrimage, residents, tourism and regional business. The six-year series should be segmented by airline, city pair and season before translating it into terminal or commercial demand.

The FY2025-FY2026 change is 7.8%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Varanasi, Chandauli, Bhadohi. Secondary candidates: Jaunpur, Mirzapur, Ghazipur, Sonbhadra. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

VNS | Varanasi | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 2,117 Cr	Inherited; unverified
Lifecycle including initial	Rs 6,150 Cr	Inherited; unverified
Airfield / terminal classification	Rs 1,950 / 3,120 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 680 / 400 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	3.900 MPPA	Cabinet release 19 Jun 2024
Bid model phase 1	9.900 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	21.00 MPPA	Not available from year one

The reported FY2026 throughput exceeds the dated 3.9 MPPA reference. The 9.9 MPPA approved project target is official planning context, not verification of completion, transfer price or concession scope.

Make initial capacity delivery and AAI/private interface a critical-path package. Validate baggage, queues, stands and road/forecourt flows together; a terminal project announcement does not establish all system capacity.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: Cabinet release 19 Jun 2024; Release distinguishes existing 3.9 from planned 9.9 Mppa; completion of expansion not verified. Phase 1 basis: Approved 9.9 MPPA target; FY2031 opening assumed, completion/concession scope unverified

AIRPORT APPRAISAL

VNS | Varanasi | catchment links

Concentrate commercial pilots around measured dwell, retail mix and rail/hotel feeder demand. Avoid valuing heritage-area access as exclusive airport-controlled business.

Proposed corridor	Road km	Min baseline / target	Context source
Varanasi rail / city hotels	28	100 / 75	Official context
Jaunpur	40	90 / 70	Official context

Pilot assumption	Varanasi rail / Jaunpur
Disjoint exposure %	50 / 12
Mode capture %	15 / 18
Round trips / day	6 / 2
Seats / vehicle	30 / 20
Operating days	350 / 350
Fare Rs / ride	200 / 250
Airport Rs / ride	15 / 18
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	126,000	28,000
Load factor	1.00	1.00
Break-even load factor	0.28	0.47
Operator contribution Cr	1.68	0.34
Airport receipt Cr before viability gate	0.19	0.05

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

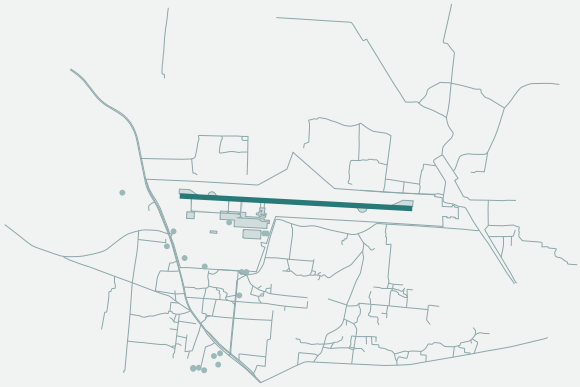
Airport access capex assumption: Rs 2.00 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

VNS | Varanasi | city and OLS

VNS | LOD 200 evidence - north up

N



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	2,746 m; dated AAI, current NOTAM not checked
Legacy runway length	2,745 m; unverified
Published-coordinate axis bearing	93.1 degrees
Sampled city footprints / assumed heights	18 / 18
Reference origin	25.45211, 82.86194; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

VNS | Varanasi | appraisal actions

Demand and commercial work programme

Varanasi is the largest traffic base in its group and is exposed to pilgrimage, residents, tourism and regional business. The six-year series should be segmented by airline, city pair and season before translating it into terminal or commercial demand.

Concentrate commercial pilots around measured dwell, retail mix and rail/hotel feeder demand. Avoid valuing heritage-area access as exclusive airport-controlled business.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

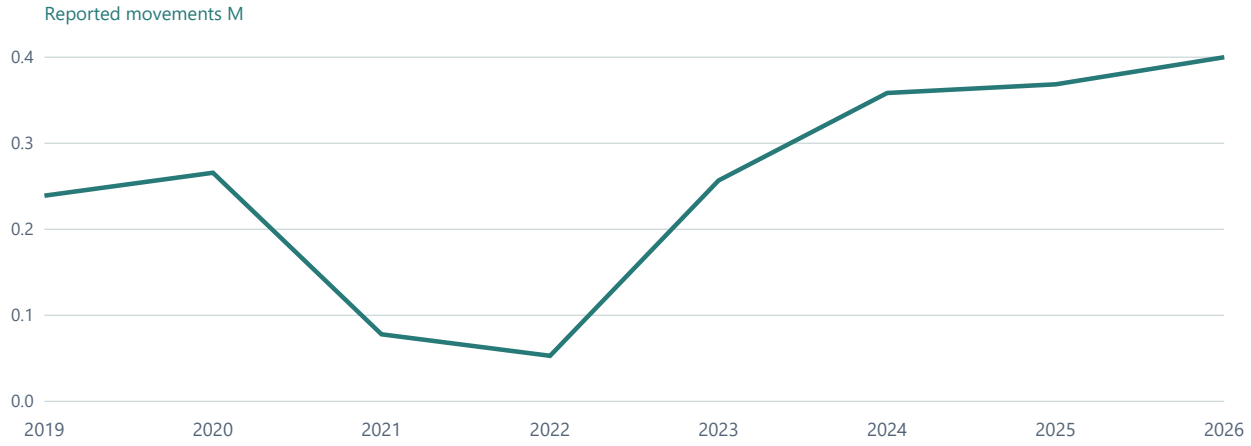
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

GAY | Gaya International Airport | market

Reported FY2026 movements: 357,462; international share: 25.5%. The airport belongs to internal group B3. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	213,635	AAI_TRAFFIC_2020
2020	237,452	AAI_TRAFFIC_2020
2021	69,655	AAI-MAR2022
2022	47,311	AAI-MAR2022
2023	229,460	AAI-MAR2024
2024	320,295	AAI-MAR2024
2025	329,304	AAI-MAR2026
2026	357,462	AAI-MAR2026

Gaya and Bodh Gaya have pilgrimage and international seasonal demand candidates. The international share is material relative to the small passenger base. Annual totals conceal concentrated peaks and cannot justify uniform year-round staffing or bus frequency.

The FY2025-FY2026 change is 8.6%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Gaya, Bodh Gaya, Jehanabad. Secondary candidates: Nawada, Aurangabad (Bihar), southern Bihar. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

GAY | Gaya International Airport | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 260 Cr	Inherited; unverified
Lifecycle including initial	Rs 1,120 Cr	Inherited; unverified
Airfield / terminal classification	Rs 380 / 520 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 140 / 80 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	0.650 MPPA	Legacy dossier assumption; annual capacity unverified
Bid model phase 1	0.650 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	2.80 MPPA	Not available from year one

The 0.65 MPPA annual figure is a legacy assumption; the AAI profile accommodation reference is not a certified annual throughput capacity. The modelled 0.975 MPPA phase must be validated against actual scope.

Review international arrival peaks, apron usage, charter handling, opening windows and terminal services. Separate any runway expansion proposal from funded mandatory obligations and adopted approach procedures.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: Legacy dossier assumption; annual capacity unverified; Annual 0.65 Mppa is a legacy assumption. AAI profile gives 250 arriving and 250 departing passengers; annual capacity not established. Phase 1 basis: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

AIRPORT APPRAISAL

GAY | Gaya International Airport | catchment links

Use seasonal hotel/tour contracts, pop-up commercial concessions and flight-linked transport. Model contracted net receipts rather than gross tour package sales or all potential Buddhist-circuit visitors.

Proposed corridor	Road km	Min baseline / target	Context source
Bodh Gaya hotels / pilgrimage	12	45 / 30	Official context
Gaya Junction	10	40 / 30	Official context

Pilot assumption	Bodh Gaya hotels / Gaya Junction
Disjoint exposure %	65 / 20
Mode capture %	25 / 18
Round trips / day	2 / 2
Seats / vehicle	20 / 12
Operating days	350 / 350
Fare Rs / ride	180 / 120
Airport Rs / ride	15 / 10
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	28,000	12,869
Load factor	1.00	0.77
Break-even load factor	0.20	0.42
Operator contribution Cr	0.37	0.06
Airport receipt Cr before viability gate	0.04	0.01

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

Airport access capex assumption: Rs 0.75 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

GAY | Gaya International Airport | city and OLS

GAY | LOD 200 evidence - north up

N



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	2,287 m; dated AAI, current NOTAM not checked
Legacy runway length	2,286 m; unverified
Published-coordinate axis bearing	103.7 degrees
Sampled city footprints / assumed heights	17 / 17
Reference origin	24.74416, 84.95058; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

GAY | Gaya International Airport | appraisal actions

Demand and commercial work programme

Gaya and Bodh Gaya have pilgrimage and international seasonal demand candidates. The international share is material relative to the small passenger base. Annual totals conceal concentrated peaks and cannot justify uniform year-round staffing or bus frequency.

Use seasonal hotel/tour contracts, pop-up commercial concessions and flight-linked transport. Model contracted net receipts rather than gross tour package sales or all potential Buddhist-circuit visitors.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

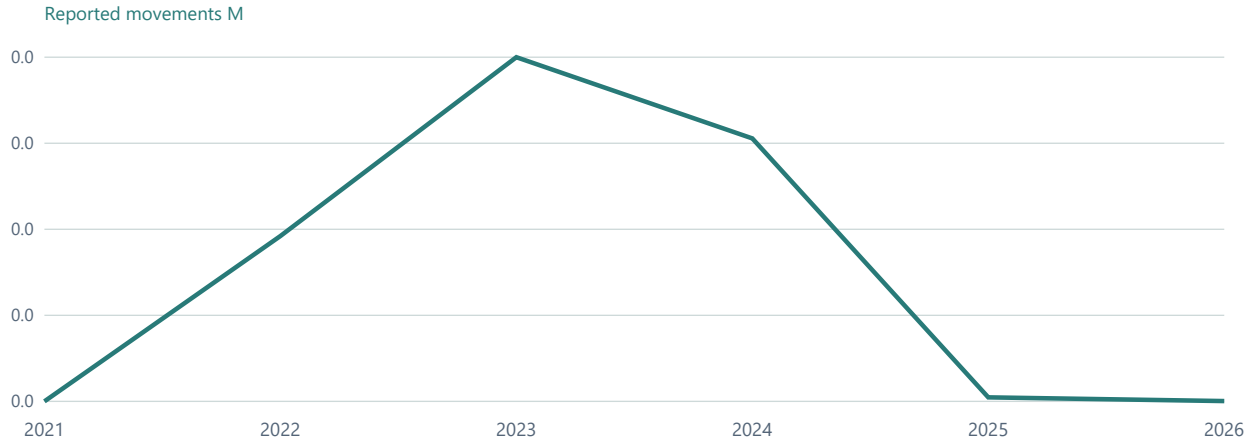
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

KBK | Kushinagar International Airport | market

Reported FY2026 movements: 20; international share: 0.0%. The airport belongs to internal group B3. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2021	0	AAI-MAR2022
2022	11,155	AAI-MAR2022
2023	23,221	AAI-MAR2024
2024	17,742	AAI-MAR2024
2025	270	AAI-MAR2026
2026	20	AAI-MAR2026

Kushinagar reported only 20 passenger movements in FY2026 in the retained AAI source vintage. That observation requires reconciliation and airline/schedule diligence. It cannot support a conventional growth story, regular coach economics or a forecast of revived scheduled traffic.

The FY2025-FY2026 change is -92.6%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Kushinagar, Deoria. Secondary candidates: Gorakhpur, Maharajganj and eastern UP / cross-border travel candidates. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

KBK | Kushinagar International Airport | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 90 Cr	Inherited; unverified
Lifecycle including initial	Rs 580 Cr	Inherited; unverified
Airfield / terminal classification	Rs 140 / 240 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 150 / 50 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	0.300 MPPA	Government capacity table 7 Aug 2023
Bid model phase 1	0.300 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	1.50 MPPA	Not available from year one

The dated official annual reference is 0.3 MPPA; physical headroom does not create demand. The 0.45 MPPA initial-phase assumption adds no meaningful short-term economic case at this traffic base.

Prioritise a verified operating plan, mandatory minimum service scope and a bounded holding-cost budget. Do not make discretionary terminal or commercial commitments to absorb an assumed traffic revival.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: Government capacity table 7 Aug 2023; Dated official annual capacity. Near-zero reported traffic is not evidence that capacity is zero. Phase 1 basis: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

AIRPORT APPRAISAL

KBK | Kushinagar International Airport | catchment links

Use on-demand licensed tour and hotel partners after sustained services are verified. Both proposed routes have zero scheduled departures and zero modelled receipt credit; airport fixed costs still need funding.

Proposed corridor	Road km	Min baseline / target	Context source
Kushinagar hotels / Buddhist circuit	8	35 / 25	Official context
Gorakhpur rail / tour interchange	55	120 / 95	Official context

Pilot assumption	Kushinagar hotels / Gorakhpur rail
Disjoint exposure %	65 / 25
Mode capture %	30 / 15
Round trips / day	0 / 0
Seats / vehicle	12 / 12
Operating days	350 / 350
Fare Rs / ride	200 / 500
Airport Rs / ride	15 / 25
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	0	0
Load factor	On demand	On demand
Break-even load factor	On demand	On demand
Operator contribution Cr	0.00	0.00
Airport receipt Cr before viability gate	0.00	0.00

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

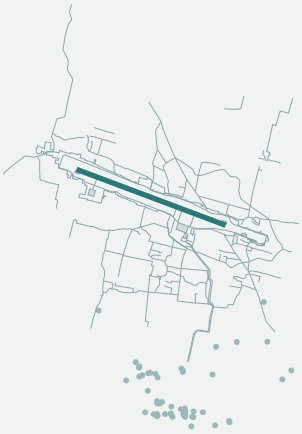
Airport access capex assumption: Rs 0.25 Cr; annual programme cost Rs 0.01 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

KBK | Kushinagar International Airport | city and OLS

KBK | LOD 200 evidence - north up

N



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	3,200 m; dated AAI, current NOTAM not checked
Legacy runway length	3,200 m; unverified
Published-coordinate axis bearing	110.6 degrees
Sampled city footprints / assumed heights	54 / 54
Reference origin	26.77652, 83.88921; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

KBK | Kushinagar International Airport | appraisal actions

Demand and commercial work programme

Kushinagar reported only 20 passenger movements in FY2026 in the retained AAI source vintage. That observation requires reconciliation and airline/schedule diligence. It cannot support a conventional growth story, regular coach economics or a forecast of revived scheduled traffic.

Use on-demand licensed tour and hotel partners after sustained services are verified. Both proposed routes have zero scheduled departures and zero modelled receipt credit; airport fixed costs still need funding.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

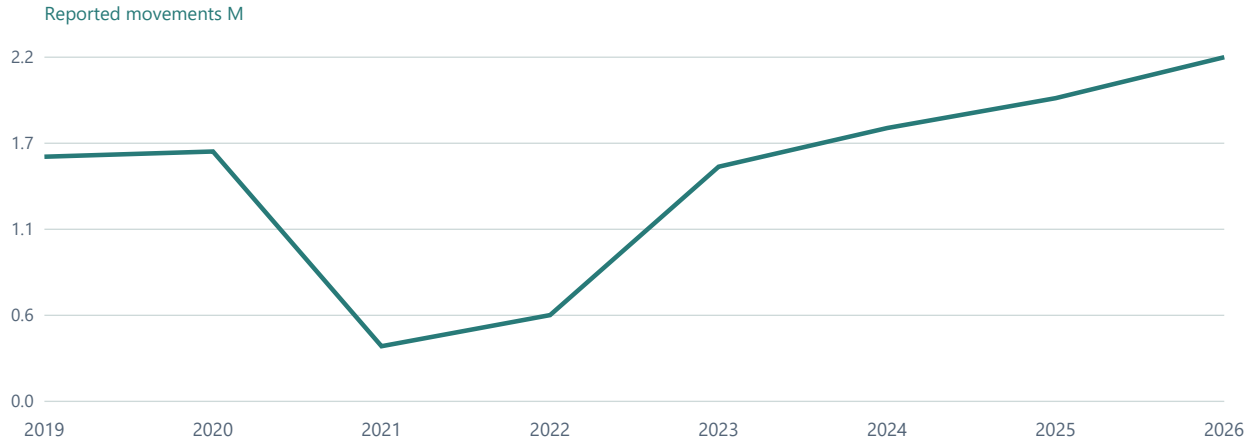
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

TRZ | Tiruchirappalli International Airport | market

Reported FY2026 movements: 2,221,024; international share: 62.7%. The airport belongs to internal group B4. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	1,578,831	AAI_TRAFFIC_2020
2020	1,612,492	AAI_TRAFFIC_2020
2021	355,903	AAI-MAR2022
2022	556,707	AAI-MAR2022
2023	1,514,260	AAI-MAR2024
2024	1,763,942	AAI-MAR2024
2025	1,956,851	AAI-MAR2026
2026	2,221,024	AAI-MAR2026

Tiruchirappalli has the portfolio's highest reported international mix. International movements generate different commercial patterns, but the same multiplier also increases concession-fee exposure. Family/resident and overseas-worker travel are hypotheses for survey, not verified segment shares.

The FY2025-FY2026 change is 13.5%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Tiruchirappalli, Thanjavur, Pudukkottai. Secondary candidates: Karur, Perambalur, Ariyalur, Kumbakonam and delta towns. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

TRZ | Tiruchirappalli International Airport | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 931 Cr	Inherited; unverified
Lifecycle including initial	Rs 3,790 Cr	Inherited; unverified
Airfield / terminal classification	Rs 1,380 / 1,620 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 510 / 280 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	4.450 MPPA	27 February 2026 official technical reference
Bid model phase 1	4.450 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	12.00 MPPA	Not available from year one

The 27 February 2026 AERA consultation reports 4.45 MPPA and 3,480 PHP for the 75,000 sqm terminal. This replaces the inauguration-era 4.4 MPPA floor as a dated planning reference, without certifying present serviceability. No extra first-phase terminal capacity is assumed.

Audit airfield, apron and processing bottlenecks before valuing runway development. The mapped runway length differs from inherited claims; resolve it using declared dimensions and aerodrome publications.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: 27 February 2026 official technical reference; New dated source 4.45 MPPA replaces previous 4.4 planning reference; commissioning/configuration confirmation still required. Next-stage capacity remains an analyst option. Phase 1 basis: 27 February 2026 dated 4.45 MPPA reference; no proposed capacity credited by default.

AIRPORT APPRAISAL

TRZ | Tiruchirappalli International Airport | catchment links

Prioritise luggage-friendly Junction/central-bus and Thanjavur connections with timed banks. Test retail price points, parking and concession terms against actual international passenger spend.

Proposed corridor	Road km	Min baseline / target	Context source
Tiruchirappalli Junction / central bus	7	40 / 25	Official context
Thanjavur	61	110 / 90	Official context

Pilot assumption	Tiruchirappalli Junction / Thanjavur
Disjoint exposure %	35 / 25
Mode capture %	18 / 20
Round trips / day	4 / 3
Seats / vehicle	30 / 30
Operating days	350 / 350
Fare Rs / ride	100 / 350
Airport Rs / ride	10 / 20
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	84,000	63,000
Load factor	1.00	1.00
Break-even load factor	0.14	0.34
Operator contribution Cr	0.65	1.37
Airport receipt Cr before viability gate	0.08	0.13

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

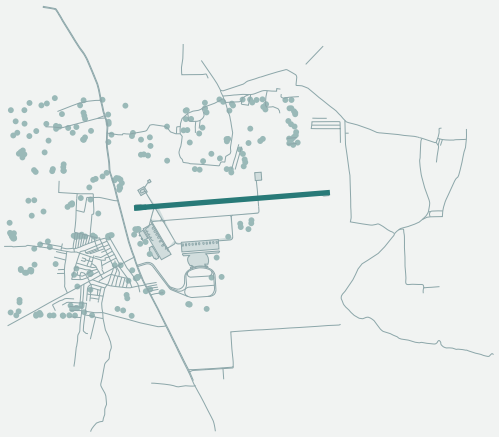
Airport access capex assumption: Rs 2.00 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

TRZ | Tiruchirappalli International Airport | city and OLS

TRZ | LOD 200 evidence - north up

N



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	2,423 m; dated AAI, current NOTAM not checked
Legacy runway length	2,480 m; unverified
Published-coordinate axis bearing	85.5 degrees
Sampled city footprints / assumed heights	252 / 252
Reference origin	10.76622, 78.71775; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

TRZ | Tiruchirappalli International Airport | appraisal actions

Demand and commercial work programme

Tiruchirappalli has the portfolio's highest reported international mix. International movements generate different commercial patterns, but the same multiplier also increases concession-fee exposure. Family/resident and overseas-worker travel are hypotheses for survey, not verified segment shares.

Prioritise luggage-friendly Junction/central-bus and Thanjavur connections with timed banks. Test retail price points, parking and concession terms against actual international passenger spend.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

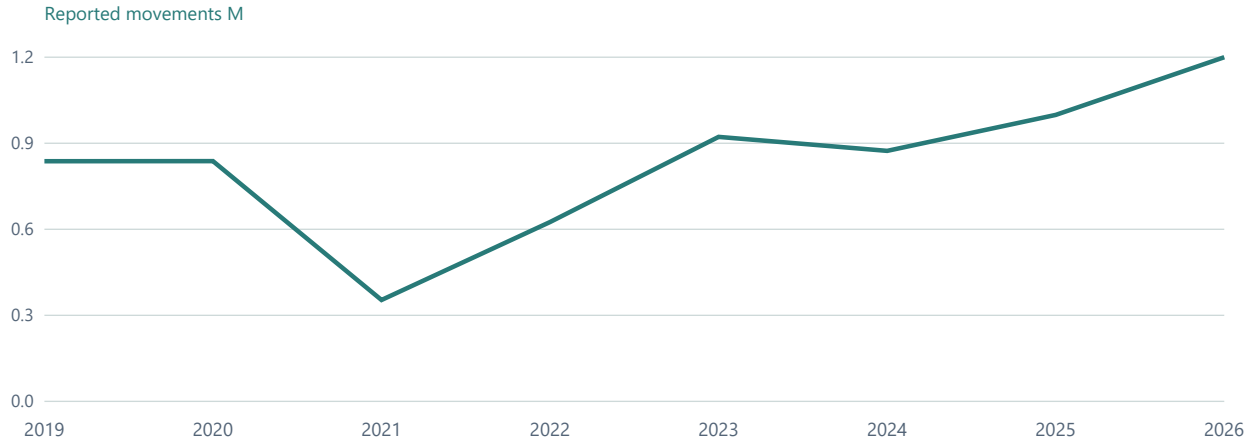
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

TIR | Tirupati International Airport | market

Reported FY2026 movements: 1,196,176; international share: 0.0%. The airport belongs to internal group B4. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	834,652	AAI_TRAFFIC_2020
2020	834,984	AAI_TRAFFIC_2020
2021	352,375	AAI-MAR2022
2022	623,341	AAI-MAR2022
2023	919,267	AAI-MAR2024
2024	870,662	AAI-MAR2024
2025	995,640	AAI-MAR2026
2026	1,196,176	AAI-MAR2026

Tirupati rail, bus and pilgrimage flows create a substantial access market, but road/rail visitors are not automatically prospective flyers. Fare affordability, group travel and temple itineraries need direct passenger evidence.

The FY2025-FY2026 change is 20.1%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Tirupati, Renigunta, Srikalahasti. Secondary candidates: Chittoor, Nellore, Madanapalle and Rayalaseema candidates. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

TIR | Tirupati International Airport | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 480 Cr	Inherited; unverified
Lifecycle including initial	Rs 1,830 Cr	Inherited; unverified
Airfield / terminal classification	Rs 390 / 980 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 320 / 140 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	2.500 MPPA	Government capacity table 7 Aug 2023
Bid model phase 1	2.500 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	6.50 MPPA	Not available from year one

The 2.5 MPPA reference is dated official context. The inherited 3.2 MPPA phase is not established as a funded private programme. Current configuration and peak-hour processing must be checked before capacity commitment.

Resolve mapped versus inherited runway length, declared distances, stands and terminal interface. Land claims and remote aircraft-operation benefits must remain outside binding price until verified.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: Government capacity table 7 Aug 2023; Dated official capacity; current changes not verified. Phase 1 basis: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

AIRPORT APPRAISAL

TIR | Tirupati International Airport | catchment links

Coordinate licensed rail/bus feeders and Srikalahasti demand. Tirumala access requires separate permits and operating arrangements, so no direct restricted-road service or exclusive temple partnership is assumed.

Proposed corridor	Road km	Min baseline / target	Context source
Tirupati rail / bus interchange	16	55 / 40	Official context
Srikalahasti	25	65 / 50	Official context

Pilot assumption	Tirupati rail / Srikalahasti
Disjoint exposure %	50 / 15
Mode capture %	20 / 15
Round trips / day	4 / 2
Seats / vehicle	30 / 20
Operating days	350 / 350
Fare Rs / ride	150 / 220
Airport Rs / ride	12 / 15
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	84,000	26,914
Load factor	1.00	0.96
Break-even load factor	0.21	0.34
Operator contribution Cr	0.91	0.36
Airport receipt Cr before viability gate	0.10	0.04

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

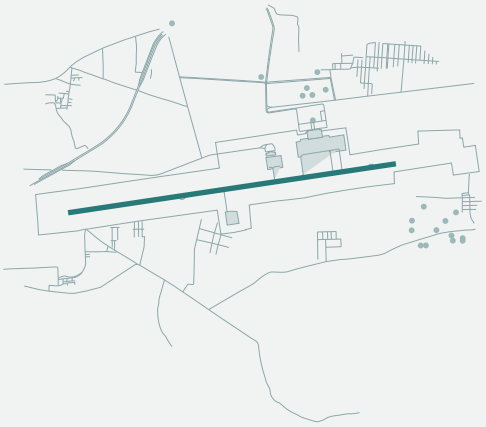
Airport access capex assumption: Rs 2.00 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

TIR | Tirupati International Airport | city and OLS

TIR | LOD 200 evidence - north up

N



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	3,810 m; dated AAI, current NOTAM not checked
Legacy runway length	3,810 m; unverified
Published-coordinate axis bearing	81.5 degrees
Sampled city footprints / assumed heights	20 / 20
Reference origin	13.63191, 79.53882; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

TIR | Tirupati International Airport | appraisal actions

Demand and commercial work programme

Tirupati rail, bus and pilgrimage flows create a substantial access market, but road/rail visitors are not automatically prospective flyers. Fare affordability, group travel and temple itineraries need direct passenger evidence.

Coordinate licensed rail/bus feeders and Srikalahasti demand. Tirumala access requires separate permits and operating arrangements, so no direct restricted-road service or exclusive temple partnership is assumed.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

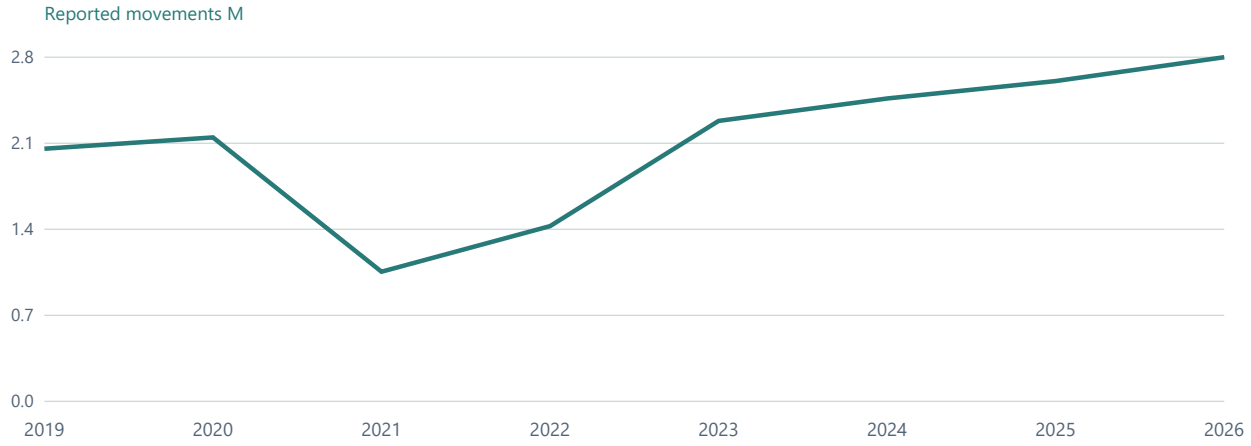
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

RPR | Raipur | market

Reported FY2026 movements: 2,763,498; international share: 0.0%. The airport belongs to internal group B5. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	2,028,548	AAI_TRAFFIC_2020
2020	2,119,417	AAI_TRAFFIC_2020
2021	1,041,070	AAI-MAR2022
2022	1,407,157	AAI-MAR2022
2023	2,251,998	AAI-MAR2024
2024	2,432,118	AAI-MAR2024
2025	2,572,031	AAI-MAR2026
2026	2,763,498	AAI-MAR2026

Raipur and the Bhilai-Durg industrial corridor offer resident and employer travel candidates. The recorded international share is zero in the FY2026 source. A hypothetical international expansion must not inflate current fee or commercial economics.

The FY2025-FY2026 change is 7.4%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Raipur, Bhilai, Durg. Secondary candidates: Dhamtari, Mahasamund, Baloda Bazar, Bilaspur. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

RPR | Raipur | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 1,086 Cr	Inherited; unverified
Lifecycle including initial	Rs 3,980 Cr	Inherited; unverified
Airfield / terminal classification	Rs 890 / 2,210 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 580 / 300 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	3.200 MPPA	30 October 2025 official technical reference
Bid model phase 1	3.200 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	14.50 MPPA	Not available from year one

The 30 October 2025 AERA consultation reports 3.2 MPPA, replacing the older 3.5 MPPA reference. The current PTT/apron programme has a rehabilitation dependency; future terminal capacity remains a study option rather than a funded concession obligation.

Verify terminal and airfield capacities, runway dimensions, industrial cargo demand and city-side rights. A district-level access distance supports geography, not a funded transport project or assured coach load.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: 30 October 2025 official technical reference; New dated source 3.2 MPPA replaces previous 3.5 planning reference; commissioning/configuration confirmation still required. Next-stage capacity remains an analyst option. Phase 1 basis: 30 October 2025 dated 3.2 MPPA reference; no proposed capacity credited by default.

AIRPORT APPRAISAL

RPR | Raipur | catchment links

Use employer block bookings, reliable city/rail and Bhilai-Durg links and net concession receipts. Any logistics or commercial parcel requires a signed right and contracted demand before entering the price case.

Proposed corridor	Road km	Min baseline / target	Context source
Raipur rail / city interchange	16	60 / 40	Official context
Bhilai / Durg	55	120 / 95	Official context

Pilot assumption	Raipur rail / Bhilai
Disjoint exposure %	40 / 35
Mode capture %	15 / 18
Round trips / day	4 / 4
Seats / vehicle	30 / 30
Operating days	350 / 350
Fare Rs / ride	150 / 300
Airport Rs / ride	12 / 20
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	84,000	84,000
Load factor	1.00	1.00
Break-even load factor	0.21	0.36
Operator contribution Cr	0.91	1.50
Airport receipt Cr before viability gate	0.10	0.17

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

Airport access capex assumption: Rs 2.00 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

RPR | Raipur | city and OLS

RPR | LOD 200 evidence - north up



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	3,250 m; dated AAI, current NOTAM not checked
Legacy runway length	3,251 m; unverified
Published-coordinate axis bearing	59.0 degrees
Sampled city footprints / assumed heights	100 / 100
Reference origin	21.18341, 81.74408; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

RPR | Raipur | appraisal actions

Demand and commercial work programme

Raipur and the Bhilai-Durg industrial corridor offer resident and employer travel candidates. The recorded international share is zero in the FY2026 source. A hypothetical international expansion must not inflate current fee or commercial economics.

Use employer block bookings, reliable city/rail and Bhilai-Durg links and net concession receipts. Any logistics or commercial parcel requires a signed right and contracted demand before entering the price case.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

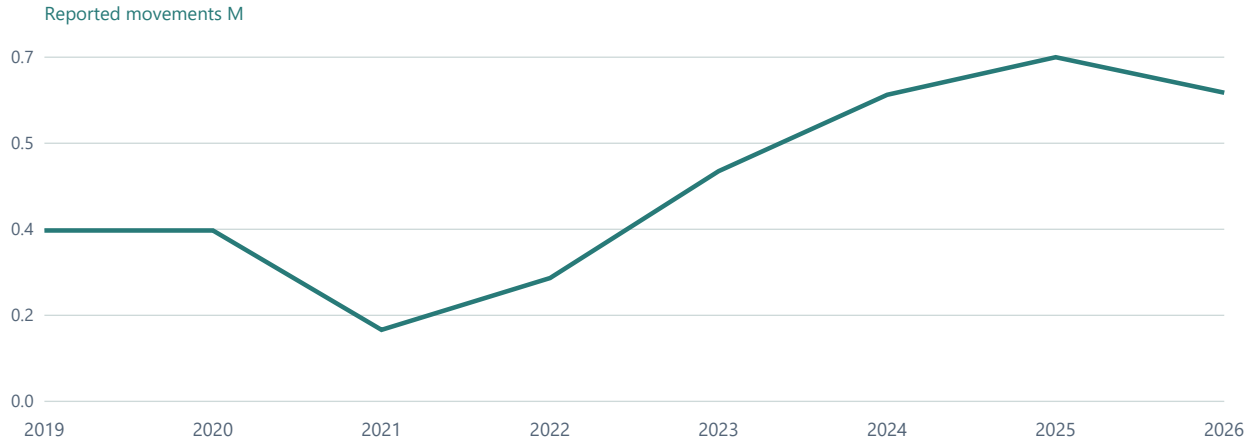
Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

AIRPORT APPRAISAL

IXU | Aurangabad Airport | market

Reported FY2026 movements: 628,152; international share: 0.0%. The airport belongs to internal group B5. Figures are total passenger movements rather than unique flyers.



Reported AAI annual observations; pre-COVID references included where available.

FY ending March	Reported movements	Source vintage
2019	347,781	AAI_TRAFFIC_2020
2020	347,734	AAI_TRAFFIC_2020
2021	145,561	AAI-MAR2022
2022	250,989	AAI-MAR2022
2023	468,486	AAI-MAR2024
2024	623,915	AAI-MAR2024
2025	700,402	AAI-MAR2026
2026	628,152	AAI-MAR2026

Chhatrapati Sambhajinagar and Jalna support industry and tourism catchment candidates. District links are useful for access design, while actual corporate travel and tour bookings must establish the market size and willingness to pay.

The FY2025-FY2026 change is -10.3%. This describes a single year and is not used as a calibrated forecast. Candidate primary catchment: Chhatrapati Sambhajinagar, Jalna, Paithan. Secondary candidates: Beed, Marathwada and selected neighbouring districts. Origin boundaries and market shares are unverified.

Traffic: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. Catchment: analyst-selected candidates; no observed O&D; survey.

AIRPORT APPRAISAL

IXU | Aurangabad Airport | development

Scope / planning input	Value	Evidence status
Initial capital budget	Rs 410 Cr	Inherited; unverified
Lifecycle including initial	Rs 1,910 Cr	Inherited; unverified
Airfield / terminal classification	Rs 640 / 860 Cr	Lifecycle classifications, not extra budgets
Commercial / sustainability class.	Rs 280 / 130 Cr	Lifecycle classifications, not extra budgets
Dated / assumed annual reference	1.500 MPPA	Legacy dossier assumption; current annual capacity unverified
Bid model phase 1	1.500 MPPA	FY2031 plus delay; assumed
Legacy ultimate planning ceiling	5.20 MPPA	Not available from year one

The 1.5 MPPA annual capacity is an unverified legacy assumption; the default model credits no automatic terminal uplift. Low annual utilisation does not eliminate peak-hour, stand or aircraft limitations.

Confirm terminal operating constraints, runway/defence interfaces, development rights and land programme. Avoid treating inherited extension dimensions or industrial cargo potential as approved works.

Scope and timing tests

Obtain a drawing-to-quantity register and a funded responsibility matrix for every material works package. Separate already-paid AAI capital from unpaid completion cost and transferred liabilities. Match the tested terminal envelope to actual opening dates, systems, stands and runway constraints. Do not sum capex classifications with the lifecycle total.

At the default timing, initial works are funded in thirds at t0 and years 1-2. The model does not represent an EPC cash schedule, a land acquisition programme or planning approval. Design procurement should respond to observed queues and integrated peaks, not only an annual percentage. No verified handback scope has been supplied.

Capacity reference: Legacy dossier assumption; current annual capacity unverified (legacy assumption; no annual-capacity source); No current official annual-capacity certificate was established. Retained 1.5 Mppa is an editable assumption. Phase 1 basis: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

AIRPORT APPRAISAL

IXU | Aurangabad Airport | catchment links

Pilot city rail/hotel and Jalna pre-booked services, combine licensed tour contracts with measurable retail conversion, and keep recurring airport guarantees to operators at zero until independently justified.

Proposed corridor	Road km	Min baseline / target	Context source
Chhatrapati Sambhajinagar rail / hotels	12	45 / 30	Official context
Jalna	55	110 / 85	Official context

Pilot assumption	Chhatrapati Sambhajinagar rail / Jalna
Disjoint exposure %	40 / 30
Mode capture %	18 / 20
Round trips / day	3 / 2
Seats / vehicle	20 / 20
Operating days	350 / 350
Fare Rs / ride	130 / 300
Airport Rs / ride	10 / 20
Service cost Rs / km	55 / 55

At FY2026 movement base	Route 1	Route 2
Annual rides	42,000	28,000
Load factor	1.00	1.00
Break-even load factor	0.28	0.54
Operator contribution Cr	0.37	0.36
Airport receipt Cr before viability gate	0.04	0.06

Distances, time targets, exposure, mode capture, fare, cost and frequency are planning assumptions. Load factors are shown as fractions here: 0.50 means 50%. A route with negative operator contribution contributes zero airport receipt in the bid engine. Published official pages establish route or geographic context only, not current timetables or these commercial numbers.

Airport access capex assumption: Rs 0.75 Cr; annual programme cost Rs 0.04 Cr. No vehicle purchase, subsidy or incremental air traffic credited.

AIRPORT APPRAISAL

IXU | Aurangabad Airport | city and OLS

IXU | LOD 200 evidence - north up

N



Flat terrain; no cadastral or height clearance

Published primary axis, mapped airport geometry and city sample centres. © OpenStreetMap contributors, ODbL 1.0. Source extents and sampling are incomplete.

Digital-twin record	Value
Published physical primary runway	2,839 m; dated AAI, current NOTAM not checked
Legacy runway length	2,835 m; unverified
Published-coordinate axis bearing	89.4 degrees
Sampled city footprints / assumed heights	542 / 540
Reference origin	19.86303, 75.39550; published physical midpoint
Vertical model	Flat terrain; legacy elevation datum unverified

The plan above shows airport geometry and sampled city building centres. It is not a cadastral boundary, complete building inventory or engineering survey. City sampling may omit towers, trees, cranes or structures outside the extract. An apparently clear corridor in this graphic is not evidence of obstacle freedom.

Apply the illustrative approach, take-off, transitional, inner-horizontal and conical layers in the HTML to test scenarios. Verify actual threshold positions and elevations, runway classification and approach procedures before choosing dimensions. Commission terrain and obstruction surveys and include CNS/PANS-OPS and current CCZM / height-clearance processes. Neither financial capacity nor building height is approved by this model.

Map source: OSM primary runway object. OSM contributors, ODbL 1.0. Blender/Three.js model details and hashes are in the local manifest.

AIRPORT APPRAISAL

IXU | Aurangabad Airport | appraisal actions

Demand and commercial work programme

Chhatrapati Sambhajinagar and Jalna support industry and tourism catchment candidates. District links are useful for access design, while actual corporate travel and tour bookings must establish the market size and willingness to pay.

Pilot city rail/hotel and Jalna pre-booked services, combine licensed tour contracts with measurable retail conversion, and keep recurring airport guarantees to operators at zero until independently justified.

Decision question	Required deliverable	Price discipline
Who uses this airport?	Flight/season-weighted origins, purpose, spend and diversion survey	Do not price the whole district population as flyers
What constrains traffic?	Peak-hour queues, stands, runway and staff/operating window audit	Credit only funded, approved additional system capacity
What transfers?	Asset/CWIP scope, warranty and unpaid commitments register	Avoid duplicate consideration and capex
Which access links work?	Permitted operator tender and travel-time pilot	No airport subsidy or guaranteed patronage assumed
What earns commercial cash?	Tendered net concessions and verified property rights	Exclude speculative land sale and uncontracted cargo
What must be reserved?	Lifecycle condition survey and handback programme	Commit later equity before dividends consume cash

Recommended appraisal treatment

Keep the airport in its proposed group rather than infer a standalone auction price. Shared commercial inputs do not confer regulatory tariff pooling. Use the airport-level demand and cost records to challenge the group cash flow; then reconcile debt, tax and consideration at the actual concession entity.

Before a binding fee, replace the inherited engineering claims with commissioned configuration and verified obligations. Record unresolved issues as quantified scenario ranges or submission conditions. Required operational safety and accessibility cannot be traded for an arbitrary cost reduction in the opportunity case.

Airport-specific inputs: reported AAI series, dated capacity register and inherited budgets. Appraisal actions are analyst recommendations; no claim of regulator or operator approval.

BUNDLE APPRAISAL

B1 | BBI + HBX | bid decision

Protected recommendation: Hold / restructure at the default Rs 500 crore allowance. The base-only target is a diagnostic price and is not resilient to the combined downside assumptions.

Decision metric	Result
Base-only opening / target / hard stop	No supported base bid
Base fee ceiling	Fails at zero
Downside fee ceiling	Fails at zero
Base equity NPV at diagnostic target	Rs -994 Cr
Minimum base / downside DSCR	1.21x / 0.76x
Downside NPV at diagnostic target	Rs -1,751 Cr
Downside NPV at zero fee	Rs -1,751 Cr

The fee is first-operating-year rupees per domestic-equivalent billable passenger. Actual fee base, international weighting, escalation, exemptions and start date are unverified. A change in these mechanics requires a fresh price, not a percentage adjustment to a quoted headline.

Total consideration Cr	Base ceiling	Downside ceiling	Protected target
0	Fails at zero	Fails at zero	Hold
500	Fails at zero	Fails at zero	Hold
1,000	Fails at zero	Fails at zero	Hold
2,000	Fails at zero	Fails at zero	Hold

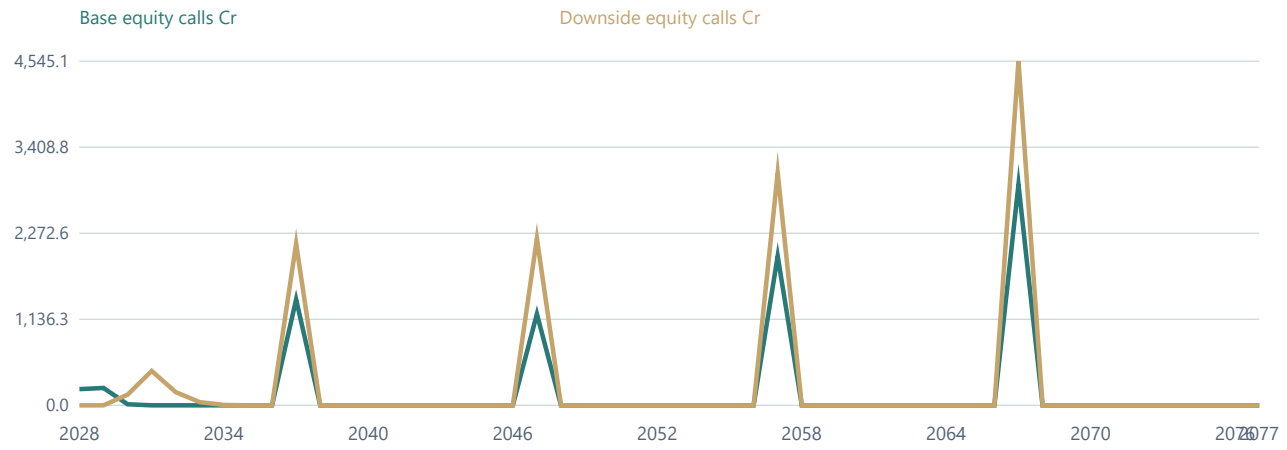
Consideration is a total scenario per group, not per airport and not additive to the workbench's unknown upfront fields. It is funded in cash at t0 without assumed tax basis or borrowing. Any real transferred asset cost must be reconciled against the capital plan to prevent double counting.

BUNDLE APPRAISAL

B1 | BBI + HBX | capital & liquidity

Airport	Initial Cr	Lifecycle Cr	Reported FY26 M
BBI	2,355	6,950	5.131
HBX	370	1,200	0.376

Funding measure at base-only target	Base	Combined downside
Nominal full capex Cr	18,042	21,833
Gross sponsor calls through phase 1 Cr	1,346	1,741
Gross calls after phase 1 Cr	7,490	12,001
Total gross calls Cr	8,837	13,742
Cumulative distributions Cr	27,903	23,984
Largest single equity call Cr	2,917	4,545
Largest call year	2067	2067



Annual equity injections; t0 is separately included in totals. Nominal amounts.

A long-life project may distribute cash and later require new sponsor capital. The figures above are gross annual calls, not a discounted investment value and not all due at commencement. No sponsor equity budget is specified in the default case; that is an unresolved funding gate. Retention reduces avoidable recycling but cannot fund every adverse works tranche.

Initial airport capex Rs 2,725 Cr is included in lifecycle amounts. Access capex is additional. Later works and unknown consideration are equity funded in this model.

BUNDLE FINANCIAL APPENDIX

B1 | BBI + HBX | annual cash flow 1/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
0 / 2027	0.00	0	0	0	910	N/A	889	0	25
1 / 2028	5.42	460	0	291	910	3.21	214	0	37
2 / 2029	5.54	490	0	311	945	2.40	229	0	62
3 / 2030	5.54	510	0	324	0	1.21	14	0	130
4 / 2031	5.54	530	0	337	0	1.29	0	76	125
5 / 2032	5.55	552	0	351	0	1.37	0	94	120
6 / 2033	5.55	575	0	365	0	1.47	0	112	115
7 / 2034	5.56	598	0	380	0	1.57	0	131	110
8 / 2035	5.56	622	0	396	0	1.69	0	0	255
9 / 2036	5.57	648	0	412	0	1.82	0	0	419
10 / 2037	5.57	674	0	429	1,930	2.10	1,397	0	95
11 / 2038	5.57	702	0	446	0	2.27	0	234	90
12 / 2039	5.58	730	0	464	0	2.47	0	255	85
13 / 2040	5.58	760	0	484	0	2.70	0	277	80
14 / 2041	5.59	791	0	503	0	2.96	0	299	75
15 / 2042	5.59	824	0	524	0	3.26	0	322	70
16 / 2043	5.60	857	0	545	0	3.61	0	346	65
17 / 2044	5.60	892	0	568	0	4.03	0	370	60

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE FINANCIAL APPENDIX

B1 | BBI + HBX | annual cash flow 2/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
18 / 2045	5.61	929	0	591	0	N/A	0	0	560
19 / 2046	5.61	967	0	615	0	N/A	0	0	1,079
20 / 2047	5.62	1,006	0	641	2,857	N/A	1,206	0	0
21 / 2048	5.62	1,048	0	667	0	N/A	0	570	0
22 / 2049	5.62	1,090	0	694	0	N/A	0	578	0
23 / 2050	5.63	1,135	0	723	0	N/A	0	600	0
24 / 2051	5.63	1,181	0	752	0	N/A	0	621	0
25 / 2052	5.63	1,228	0	782	0	N/A	0	644	0
26 / 2053	5.63	1,277	0	813	0	N/A	0	667	0
27 / 2054	5.63	1,328	0	846	0	N/A	0	692	0
28 / 2055	5.63	1,381	0	880	0	N/A	0	0	717
29 / 2056	5.63	1,436	0	915	0	N/A	0	0	1,460
30 / 2057	5.63	1,494	0	951	4,230	N/A	1,970	0	0
31 / 2058	5.63	1,554	0	989	0	N/A	0	828	0
32 / 2059	5.63	1,616	0	1,029	0	N/A	0	857	0
33 / 2060	5.63	1,680	0	1,070	0	N/A	0	888	0
34 / 2061	5.63	1,748	0	1,113	0	N/A	0	920	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

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BUNDLE FINANCIAL APPENDIX

B1 | BBI + HBX | annual cash flow 3/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
35 / 2062	5.63	1,817	0	1,157	0	N/A	0	953	0
36 / 2063	5.63	1,890	0	1,204	0	N/A	0	988	0
37 / 2064	5.63	1,966	0	1,252	0	N/A	0	1,024	0
38 / 2065	5.63	2,044	0	1,302	0	N/A	0	0	1,061
39 / 2066	5.63	2,126	0	1,354	0	N/A	0	0	2,161
40 / 2067	5.63	2,211	0	1,408	6,261	N/A	2,917	0	0
41 / 2068	5.63	2,300	0	1,464	0	N/A	0	1,225	0
42 / 2069	5.63	2,392	0	1,523	0	N/A	0	1,269	0
43 / 2070	5.63	2,487	0	1,584	0	N/A	0	1,314	0
44 / 2071	5.63	2,587	0	1,647	0	N/A	0	1,362	0
45 / 2072	5.63	2,690	0	1,713	0	N/A	0	1,411	0
46 / 2073	5.63	2,798	0	1,782	0	N/A	0	1,462	0
47 / 2074	5.63	2,910	0	1,853	0	N/A	0	1,515	0
48 / 2075	5.63	3,026	0	1,927	0	N/A	0	1,571	0
49 / 2076	5.63	3,147	0	2,004	0	N/A	0	1,628	0
50 / 2077	5.63	3,273	0	2,084	0	N/A	0	1,799	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

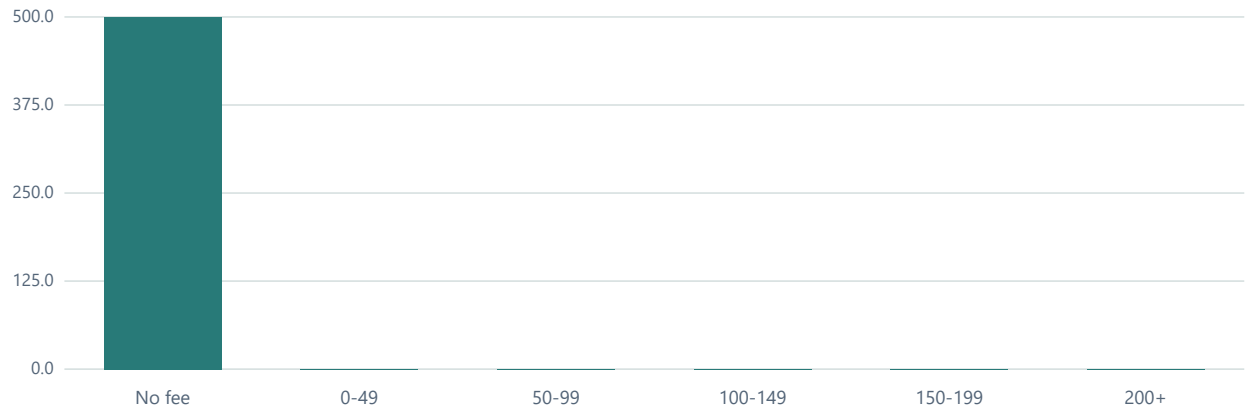
Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE RISK APPRAISAL

B1 | BBI + HBX | stress and simulations

Passenger fee Rs	Base NPV Cr	Down NPV Cr	Base DSCR	Down DSCR
0	-994	-1,751	1.21	0.76
25	-1,088	-1,847	1.16	0.72
50	-1,182	-1,947	1.12	0.68
75	-1,278	-2,050	1.07	0.64
100	-1,377	-2,154	1.01	0.60
125	-1,479	-2,258	0.95	0.55
150	-1,583	-2,364	0.89	0.51
175	-1,690	-2,471	0.83	0.47
200	-1,800	-2,580	0.77	0.43

500 seeded paths: diagnostic target Rs 0	Result
Passes at target	0 / 500 (0%)
Infeasible even at fee zero	500 / 500
Fee limit P10 / P50 / P90	Rs 0 / Rs 0 / Rs 0
Equity NPV P10 at tested fee	Rs -1,670 Cr
Gross lifetime equity calls P90	Rs 12,565 Cr



Fee-limit histogram; null paths are separate. Subjective scenario sample, not market probabilities.

The deterministic downside combines traffic -15%, growth -1 percentage point, non-aero -15%, opex +10%, capex +20%, interest +1.5 percentage points and two extra years of delay. It has no assigned probability. The separate simulated sample varies the disclosed factors independently. Neither analysis prices a competitor's willingness to pay or guarantees financing.

Full 500-row path data for this group are in the delivered simulation CSV / JSON. Infeasible limits are null and enter unconditional percentiles as zero with an explicit separate count.

BUNDLE OPERATING STRATEGY

B1 | BBI + HBX | sustainable business case

The preferred operating discipline combines verified aviation charges, measured commercial conversion, shared procurement where permitted, flexible regional concessions and retained capital. It does not depend on speculative parcel sales, guaranteed combined tariffs or a forecast of new flying created by surface shuttles.

Explicit opportunity case	Tested input
Net non-aero first-FY yield	Base Rs 200 + Rs 100 = Rs 300 per passenger
Fixed operating cost	10% lower than the base input; statutory service levels protected
Later lifecycle budget	20% lower after initial works; subject to approved scope
Initial capex / consideration	Unchanged
Opportunity base fee ceiling	Fails at zero
Opportunity downside fee ceiling	Fails at zero
Opportunity protected policy band	Hold

The opportunity case is not inserted into the default recommended price. Additional yield requires signed net concessions, validated spend and appropriate regulatory treatment; fixed savings require a service-level staffing/procurement plan; later budget savings require engineering scope approval. Treat a favourable result as a work programme, not immediate auction value.

Access contribution

At the FY2026 traffic base and first-FY rates, eligible airport route receipts total about Rs 0.36 crore against annual programme fixed costs of Rs 0.08 crore, before the additional bay/integration investment. Operator receipts are not gross airport revenue. The modelling gives no new air traffic credit. Size or co-fund pilots whose airport NPV is negative.

Retain cash for later condition-based works. Before any distribution, check the next construction milestones, statutory minima, DSRA needs, seasonal working capital and committed sponsor capacity. A more ambitious commercial scheme must carry its own capital, rights and downside rather than borrowing credibility from the anchor airport's passenger base.

BUNDLE GOVERNANCE

B1 | BBI + HBX | risk ownership & pre-bid action

Risk interface	Owner / required work	Bid response
Tender and fee definition	Legal/commercial: final version-controlled pack	Reprice after passenger and indexation definitions
Asset/CWIP and scope	Engineering/QS: condition, paid/unpaid inventory, warranty and quantities	One inventory for consideration plus remaining capex
Capacity and delivery	Airport operations/project lead: peaks, stands, utilities and permits	No volume credit before funded integrated opening
Revenue / regulatory	Tariff adviser/commercial: airport orders, concessions and treatment	No assumed tariff pooling or property right
Transport / catchment	Surface access lead: O&D, existing services, permits and priced pilot	Zero incremental airport demand until evidenced
Liquidity / lending	CFO: committed equity, debt terms, reserves and downside waterfall	No binding bid with unspecified sponsor headroom
City / safeguarding	Aerodrome specialist: thresholds, terrain, obstacles, CNS and procedures	No reliance on illustrative height clearance

Request schedule-level evidence rather than a general assurance that works are complete or land is available. Document the physical asset, commercial obligation, responsible party and payment basis. A promised airport extension, municipal link or exclusivity protection is not part of the base case without an enforceable agreement.

Keep airport operating costs separate enough to audit the regional assets, while valuing the legally defined group as a whole. Tax, tariffs, security and financing do not necessarily pool merely because the transaction bundles airports. The shareholder model is an analytical aggregate, not confirmation of the eventual concession entity structure.

Current committee resolution

Continue diligence and operator/contract market testing; do not release a binding passenger fee from the default protected screen. Use the allowance and commercial/engineering cases to identify which negotiation or scope changes have enough value to reopen the price decision. Record any deliberately accepted downside against actual sponsor funding authority.

BUNDLE APPRAISAL

B2 | ATQ + DHM | bid decision

Protected recommendation: Hold / restructure at the default Rs 500 crore allowance. The base-only target is a diagnostic price and is not resilient to the combined downside assumptions.

Decision metric	Result
Base-only opening / target / hard stop	No supported base bid
Base fee ceiling	Fails at zero
Downside fee ceiling	Fails at zero
Base equity NPV at diagnostic target	Rs -229 Cr
Minimum base / downside DSCR	2.87x / 1.65x
Downside NPV at diagnostic target	Rs -844 Cr
Downside NPV at zero fee	Rs -844 Cr

The fee is first-operating-year rupees per domestic-equivalent billable passenger. Actual fee base, international weighting, escalation, exemptions and start date are unverified. A change in these mechanics requires a fresh price, not a percentage adjustment to a quoted headline.

Total consideration Cr	Base ceiling	Downside ceiling	Protected target
0	Rs 80	Fails at zero	Hold
500	Fails at zero	Fails at zero	Hold
1,000	Fails at zero	Fails at zero	Hold
2,000	Fails at zero	Fails at zero	Hold

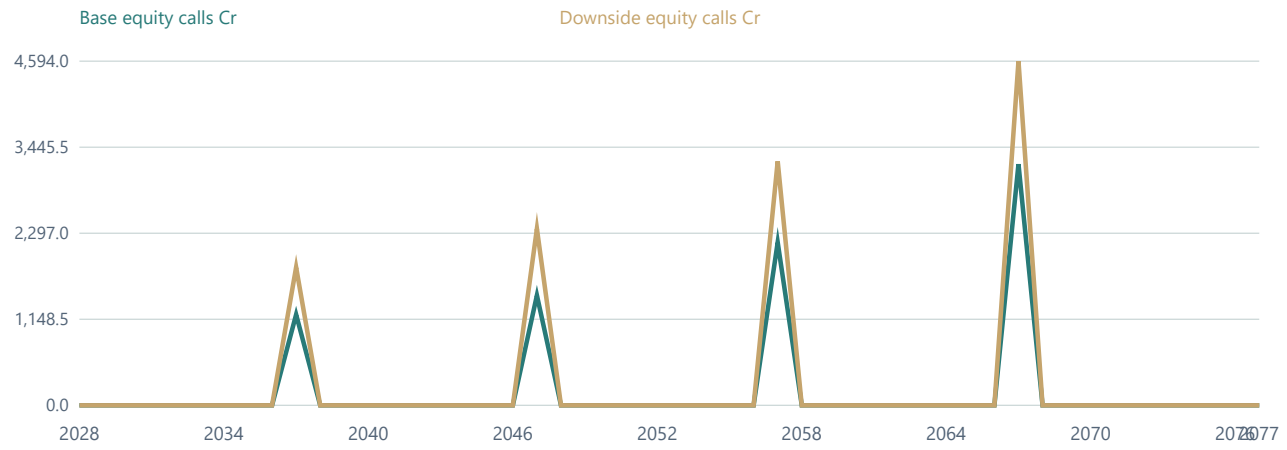
Consideration is a total scenario per group, not per airport and not additive to the workbench's unknown upfront fields. It is funded in cash at t0 without assumed tax basis or borrowing. Any real transferred asset cost must be reconciled against the capital plan to prevent double counting.

BUNDLE APPRAISAL

B2 | ATQ + DHM | capital & liquidity

Airport	Initial Cr	Lifecycle Cr	Reported FY26 M
ATQ	393	4,120	2.941
DHM	130	1,370	0.164

Funding measure at base-only target	Base	Combined downside
Nominal full capex Cr	14,521	17,460
Gross sponsor calls through phase 1 Cr	576	592
Gross calls after phase 1 Cr	8,073	12,050
Total gross calls Cr	8,649	12,642
Cumulative distributions Cr	21,662	18,127
Largest single equity call Cr	3,219	4,594
Largest call year	2067	2067



Annual equity injections; t0 is separately included in totals. Nominal amounts.

A long-life project may distribute cash and later require new sponsor capital. The figures above are gross annual calls, not a discounted investment value and not all due at commencement. No sponsor equity budget is specified in the default case; that is an unresolved funding gate. Retention reduces avoidable recycling but cannot fund every adverse works tranche.

Initial airport capex Rs 523 Cr is included in lifecycle amounts. Access capex is additional. Later works and unknown consideration are equity funded in this model.

BUNDLE FINANCIAL APPENDIX

B2 | ATQ + DHM | annual cash flow 1/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
0 / 2027	0.00	0	0	0	176	N/A	576	0	5
1 / 2028	3.15	268	0	148	176	7.49	0	0	25
2 / 2029	3.24	287	0	161	181	5.57	0	49	12
3 / 2030	3.34	307	0	174	0	2.87	0	80	25
4 / 2031	3.44	329	0	188	0	3.19	0	106	24
5 / 2032	3.54	353	0	203	0	3.56	0	119	23
6 / 2033	3.65	378	0	219	0	3.98	0	132	22
7 / 2034	3.76	405	0	237	0	4.46	0	147	21
8 / 2035	3.87	433	0	255	0	5.00	0	0	182
9 / 2036	3.97	462	0	274	0	5.60	0	0	359
10 / 2037	4.07	493	0	294	1,767	6.90	1,212	0	18
11 / 2038	4.17	525	0	315	0	7.72	0	233	17
12 / 2039	4.27	560	0	338	0	8.68	0	252	16
13 / 2040	4.35	592	0	359	0	9.72	0	269	15
14 / 2041	4.35	616	0	373	0	10.73	0	282	14
15 / 2042	4.35	641	0	388	0	11.89	0	294	13
16 / 2043	4.35	666	0	404	0	13.24	0	307	13
17 / 2044	4.35	693	0	420	0	14.84	0	321	12

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE FINANCIAL APPENDIX

B2 | ATQ + DHM | annual cash flow 2/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
18 / 2045	4.35	721	0	437	0	N/A	0	0	366
19 / 2046	4.35	750	0	454	0	N/A	0	0	734
20 / 2047	4.35	779	0	472	2,616	N/A	1,468	0	0
21 / 2048	4.35	811	0	491	0	N/A	0	424	0
22 / 2049	4.35	843	0	511	0	N/A	0	436	0
23 / 2050	4.35	877	0	531	0	N/A	0	452	0
24 / 2051	4.35	912	0	553	0	N/A	0	467	0
25 / 2052	4.35	948	0	575	0	N/A	0	484	0
26 / 2053	4.35	986	0	598	0	N/A	0	501	0
27 / 2054	4.35	1,026	0	622	0	N/A	0	519	0
28 / 2055	4.35	1,067	0	646	0	N/A	0	0	538
29 / 2056	4.35	1,109	0	672	0	N/A	0	0	1,094
30 / 2057	4.35	1,154	0	699	3,873	N/A	2,175	0	0
31 / 2058	4.35	1,200	0	727	0	N/A	0	624	0
32 / 2059	4.35	1,248	0	756	0	N/A	0	646	0
33 / 2060	4.35	1,298	0	787	0	N/A	0	668	0
34 / 2061	4.35	1,350	0	818	0	N/A	0	692	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

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BUNDLE FINANCIAL APPENDIX

B2 | ATQ + DHM | annual cash flow 3/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
35 / 2062	4.35	1,404	0	851	0	N/A	0	716	0
36 / 2063	4.35	1,460	0	885	0	N/A	0	742	0
37 / 2064	4.35	1,518	0	920	0	N/A	0	768	0
38 / 2065	4.35	1,579	0	957	0	N/A	0	0	796
39 / 2066	4.35	1,642	0	995	0	N/A	0	0	1,620
40 / 2067	4.35	1,708	0	1,035	5,732	N/A	3,219	0	0
41 / 2068	4.35	1,776	0	1,076	0	N/A	0	924	0
42 / 2069	4.35	1,847	0	1,119	0	N/A	0	956	0
43 / 2070	4.35	1,921	0	1,164	0	N/A	0	990	0
44 / 2071	4.35	1,998	0	1,211	0	N/A	0	1,024	0
45 / 2072	4.35	2,078	0	1,259	0	N/A	0	1,060	0
46 / 2073	4.35	2,161	0	1,310	0	N/A	0	1,098	0
47 / 2074	4.35	2,248	0	1,362	0	N/A	0	1,137	0
48 / 2075	4.35	2,337	0	1,416	0	N/A	0	1,178	0
49 / 2076	4.35	2,431	0	1,473	0	N/A	0	1,220	0
50 / 2077	4.35	2,528	0	1,532	0	N/A	0	1,342	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

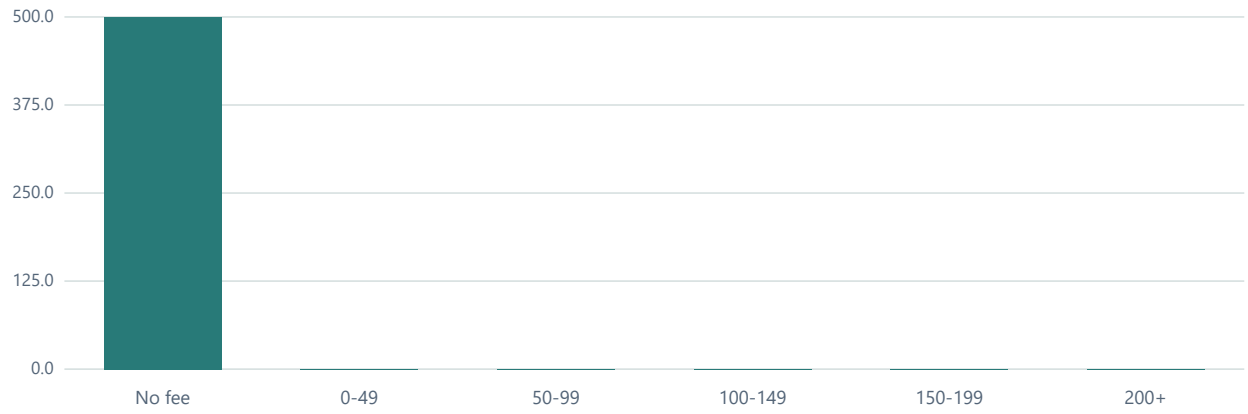
Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE RISK APPRAISAL

B2 | ATQ + DHM | stress and simulations

Passenger fee Rs	Base NPV Cr	Down NPV Cr	Base DSCR	Down DSCR
0	-229	-844	2.87	1.65
25	-311	-908	2.69	1.53
50	-393	-973	2.51	1.41
75	-475	-1,039	2.33	1.29
100	-558	-1,107	2.15	1.18
125	-641	-1,177	1.97	1.05
150	-723	-1,253	1.80	0.89
175	-806	-1,332	1.62	0.73
200	-889	-1,416	1.44	0.57

500 seeded paths: diagnostic target Rs 0	Result
Passes at target	0 / 500 (0%)
Infeasible even at fee zero	500 / 500
Fee limit P10 / P50 / P90	Rs 0 / Rs 0 / Rs 0
Equity NPV P10 at tested fee	Rs -656 Cr
Gross lifetime equity calls P90	Rs 11,593 Cr



Fee-limit histogram; null paths are separate. Subjective scenario sample, not market probabilities.

The deterministic downside combines traffic -15%, growth -1 percentage point, non-aero -15%, opex +10%, capex +20%, interest +1.5 percentage points and two extra years of delay. It has no assigned probability. The separate simulated sample varies the disclosed factors independently. Neither analysis prices a competitor's willingness to pay or guarantees financing.

Full 500-row path data for this group are in the delivered simulation CSV / JSON. Infeasible limits are null and enter unconditional percentiles as zero with an explicit separate count.

BUNDLE OPERATING STRATEGY

B2 | ATQ + DHM | sustainable business case

The preferred operating discipline combines verified aviation charges, measured commercial conversion, shared procurement where permitted, flexible regional concessions and retained capital. It does not depend on speculative parcel sales, guaranteed combined tariffs or a forecast of new flying created by surface shuttles.

Explicit opportunity case	Tested input
Net non-aero first-FY yield	Base Rs 200 + Rs 100 = Rs 300 per passenger
Fixed operating cost	10% lower than the base input; statutory service levels protected
Later lifecycle budget	20% lower after initial works; subject to approved scope
Initial capex / consideration	Unchanged
Opportunity base fee ceiling	Rs 50
Opportunity downside fee ceiling	Fails at zero
Opportunity protected policy band	Hold

The opportunity case is not inserted into the default recommended price. Additional yield requires signed net concessions, validated spend and appropriate regulatory treatment; fixed savings require a service-level staffing/procurement plan; later budget savings require engineering scope approval. Treat a favourable result as a work programme, not immediate auction value.

Access contribution

At the FY2026 traffic base and first-FY rates, eligible airport route receipts total about Rs 0.23 crore against annual programme fixed costs of Rs 0.08 crore, before the additional bay/integration investment. Operator receipts are not gross airport revenue. The modelling gives no new air traffic credit. Size or co-fund pilots whose airport NPV is negative.

Retain cash for later condition-based works. Before any distribution, check the next construction milestones, statutory minima, DSRA needs, seasonal working capital and committed sponsor capacity. A more ambitious commercial scheme must carry its own capital, rights and downside rather than borrowing credibility from the anchor airport's passenger base.

BUNDLE GOVERNANCE

B2 | ATQ + DHM | risk ownership & pre-bid action

Risk interface	Owner / required work	Bid response
Tender and fee definition	Legal/commercial: final version-controlled pack	Reprice after passenger and indexation definitions
Asset/CWIP and scope	Engineering/QS: condition, paid/unpaid inventory, warranty and quantities	One inventory for consideration plus remaining capex
Capacity and delivery	Airport operations/project lead: peaks, stands, utilities and permits	No volume credit before funded integrated opening
Revenue / regulatory	Tariff adviser/commercial: airport orders, concessions and treatment	No assumed tariff pooling or property right
Transport / catchment	Surface access lead: O&D, existing services, permits and priced pilot	Zero incremental airport demand until evidenced
Liquidity / lending	CFO: committed equity, debt terms, reserves and downside waterfall	No binding bid with unspecified sponsor headroom
City / safeguarding	Aerodrome specialist: thresholds, terrain, obstacles, CNS and procedures	No reliance on illustrative height clearance

Request schedule-level evidence rather than a general assurance that works are complete or land is available. Document the physical asset, commercial obligation, responsible party and payment basis. A promised airport extension, municipal link or exclusivity protection is not part of the base case without an enforceable agreement.

Keep airport operating costs separate enough to audit the regional assets, while valuing the legally defined group as a whole. Tax, tariffs, security and financing do not necessarily pool merely because the transaction bundles airports. The shareholder model is an analytical aggregate, not confirmation of the eventual concession entity structure.

Current committee resolution

Continue diligence and operator/contract market testing; do not release a binding passenger fee from the default protected screen. Use the allowance and commercial/engineering cases to identify which negotiation or scope changes have enough value to reopen the price decision. Record any deliberately accepted downside against actual sponsor funding authority.

BUNDLE APPRAISAL

B3 | VNS + GAY + KBK | bid decision

Protected recommendation: Hold / restructure at the default Rs 500 crore allowance. The base-only target is a diagnostic price and is not resilient to the combined downside assumptions.

Decision metric	Result
Base-only opening / target / hard stop	No supported base bid
Base fee ceiling	Fails at zero
Downside fee ceiling	Fails at zero
Base equity NPV at diagnostic target	Rs -351 Cr
Minimum base / downside DSCR	1.02x / 0.67x
Downside NPV at diagnostic target	Rs -1,572 Cr
Downside NPV at zero fee	Rs -1,572 Cr

The fee is first-operating-year rupees per domestic-equivalent billable passenger. Actual fee base, international weighting, escalation, exemptions and start date are unverified. A change in these mechanics requires a fresh price, not a percentage adjustment to a quoted headline.

Total consideration Cr	Base ceiling	Downside ceiling	Protected target
0	Fails at zero	Fails at zero	Hold
500	Fails at zero	Fails at zero	Hold
1,000	Fails at zero	Fails at zero	Hold
2,000	Fails at zero	Fails at zero	Hold

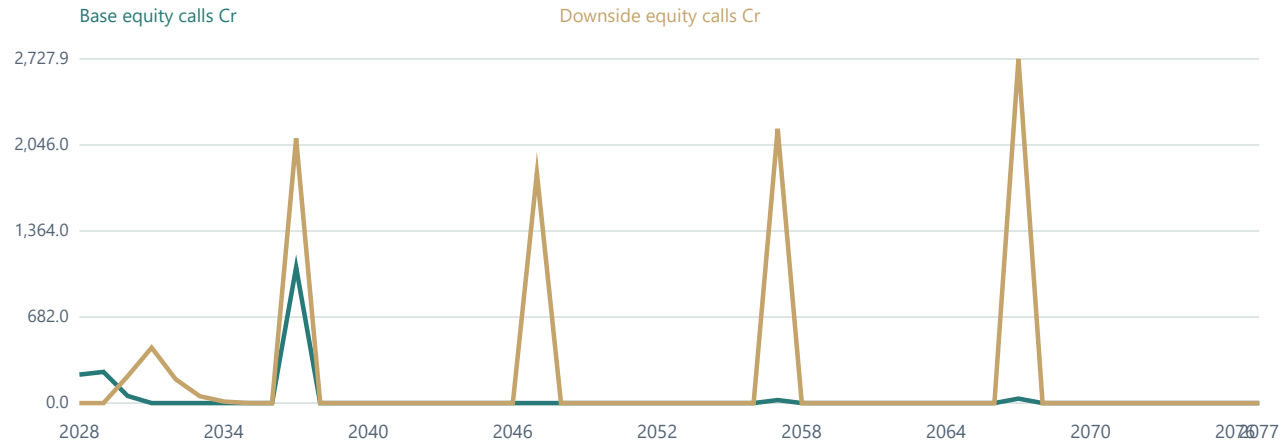
Consideration is a total scenario per group, not per airport and not additive to the workbench's unknown upfront fields. It is funded in cash at t0 without assumed tax basis or borrowing. Any real transferred asset cost must be reconciled against the capital plan to prevent double counting.

BUNDLE APPRAISAL

B3 | VNS + GAY + KBK | capital & liquidity

Airport	Initial Cr	Lifecycle Cr	Reported FY26 M
VNS	2,117	6,150	4.343
GAY	260	1,120	0.357
KBK	90	580	0.000

Funding measure at base-only target	Base	Combined downside
Nominal full capex Cr	17,663	21,360
Gross sponsor calls through phase 1 Cr	1,382	1,768
Gross calls after phase 1 Cr	1,135	8,889
Total gross calls Cr	2,518	10,657
Cumulative distributions Cr	51,170	37,929
Largest single equity call Cr	1,076	2,728
Largest call year	2037	2067



Annual equity injections; t0 is separately included in totals. Nominal amounts.

A long-life project may distribute cash and later require new sponsor capital. The figures above are gross annual calls, not a discounted investment value and not all due at commencement. No sponsor equity budget is specified in the default case; that is an unresolved funding gate. Retention reduces avoidable recycling but cannot fund every adverse works tranche.

Initial airport capex Rs 2,467 Cr is included in lifecycle amounts. Access capex is additional. Later works and unknown consideration are equity funded in this model.

BUNDLE FINANCIAL APPENDIX

B3 | VNS + GAY + KBK | annual cash flow 1/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
0 / 2027	0.00	0	0	0	824	N/A	853	0	22
1 / 2028	4.69	398	0	220	824	2.74	226	0	33
2 / 2029	4.70	416	0	230	855	2.05	247	0	56
3 / 2030	4.72	434	0	241	0	1.02	57	0	117
4 / 2031	5.66	541	0	317	0	1.31	0	73	113
5 / 2032	5.99	596	0	354	0	1.49	0	111	108
6 / 2033	6.34	656	0	395	0	1.69	0	148	104
7 / 2034	6.72	723	0	441	0	1.93	0	189	99
8 / 2035	7.11	796	0	491	0	2.20	0	0	328
9 / 2036	7.36	857	0	532	0	2.47	0	0	595
10 / 2037	7.62	922	0	577	1,915	2.92	1,076	0	86
11 / 2038	7.89	993	0	625	0	3.29	0	378	81
12 / 2039	8.16	1,069	0	677	0	3.72	0	423	77
13 / 2040	8.45	1,150	0	732	0	4.22	0	471	72
14 / 2041	8.74	1,238	0	793	0	4.81	0	523	68
15 / 2042	9.05	1,333	0	858	0	5.52	0	578	63
16 / 2043	9.37	1,434	0	928	0	6.36	0	637	59
17 / 2044	9.69	1,544	0	1,004	0	7.38	0	700	54

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE FINANCIAL APPENDIX

B3 | VNS + GAY + KBK | annual cash flow 2/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
18 / 2045	10.02	1,660	0	1,084	0	N/A	0	0	917
19 / 2046	10.35	1,783	0	1,170	0	N/A	0	0	1,844
20 / 2047	10.55	1,890	0	1,243	2,835	N/A	0	26	0
21 / 2048	10.55	1,966	0	1,292	0	N/A	0	1,036	0
22 / 2049	10.55	2,044	0	1,344	0	N/A	0	1,064	0
23 / 2050	10.55	2,126	0	1,398	0	N/A	0	1,104	0
24 / 2051	10.55	2,211	0	1,454	0	N/A	0	1,146	0
25 / 2052	10.55	2,299	0	1,512	0	N/A	0	1,189	0
26 / 2053	10.55	2,391	0	1,572	0	N/A	0	1,234	0
27 / 2054	10.55	2,487	0	1,635	0	N/A	0	1,281	0
28 / 2055	10.55	2,587	0	1,701	0	N/A	0	0	1,330
29 / 2056	10.55	2,690	0	1,769	0	N/A	0	0	2,711
30 / 2057	10.55	2,798	0	1,840	4,197	N/A	24	0	0
31 / 2058	10.55	2,909	0	1,913	0	N/A	0	1,517	0
32 / 2059	10.55	3,026	0	1,990	0	N/A	0	1,574	0
33 / 2060	10.55	3,147	0	2,069	0	N/A	0	1,634	0
34 / 2061	10.55	3,273	0	2,152	0	N/A	0	1,696	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE FINANCIAL APPENDIX

B3 | VNS + GAY + KBK | annual cash flow 3/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
35 / 2062	10.55	3,404	0	2,238	0	N/A	0	1,760	0
36 / 2063	10.55	3,540	0	2,328	0	N/A	0	1,827	0
37 / 2064	10.55	3,681	0	2,421	0	N/A	0	1,896	0
38 / 2065	10.55	3,829	0	2,518	0	N/A	0	0	1,969
39 / 2066	10.55	3,982	0	2,618	0	N/A	0	0	4,013
40 / 2067	10.55	4,141	0	2,723	6,212	N/A	35	0	0
41 / 2068	10.55	4,307	0	2,832	0	N/A	0	2,246	0
42 / 2069	10.55	4,479	0	2,945	0	N/A	0	2,330	0
43 / 2070	10.55	4,658	0	3,063	0	N/A	0	2,418	0
44 / 2071	10.55	4,845	0	3,186	0	N/A	0	2,510	0
45 / 2072	10.55	5,038	0	3,313	0	N/A	0	2,605	0
46 / 2073	10.55	5,240	0	3,445	0	N/A	0	2,704	0
47 / 2074	10.55	5,449	0	3,583	0	N/A	0	2,807	0
48 / 2075	10.55	5,667	0	3,727	0	N/A	0	2,914	0
49 / 2076	10.55	5,894	0	3,876	0	N/A	0	3,026	0
50 / 2077	10.55	6,130	0	4,031	0	N/A	0	3,395	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

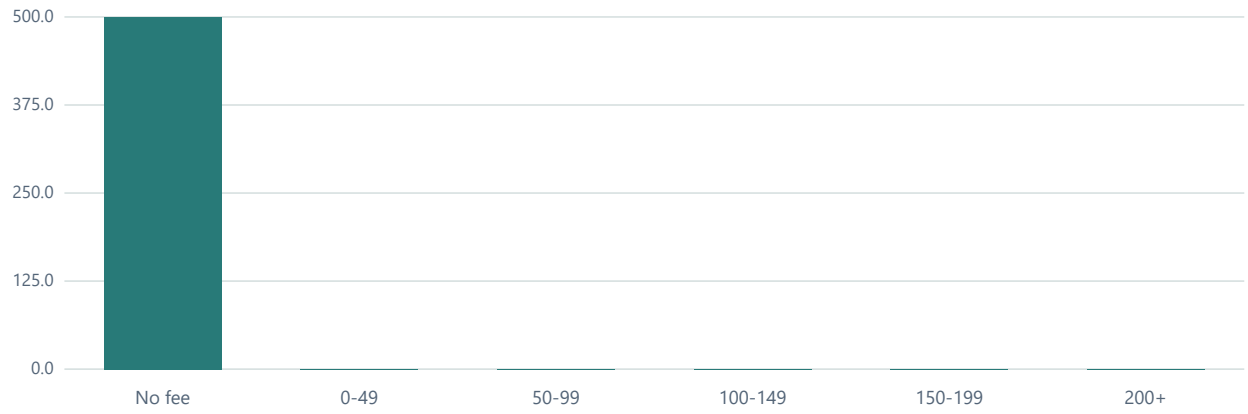
Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE RISK APPRAISAL

B3 | VNS + GAY + KBK | stress and simulations

Passenger fee Rs	Base NPV Cr	Down NPV Cr	Base DSCR	Down DSCR
0	-351	-1,572	1.02	0.67
25	-479	-1,679	0.96	0.63
50	-606	-1,787	0.91	0.58
75	-734	-1,898	0.85	0.54
100	-862	-2,011	0.79	0.49
125	-991	-2,126	0.73	0.45
150	-1,122	-2,244	0.68	0.41
175	-1,257	-2,363	0.62	0.36
200	-1,391	-2,484	0.56	0.32

500 seeded paths: diagnostic target Rs 0	Result
Passes at target	0 / 500 (0%)
Infeasible even at fee zero	500 / 500
Fee limit P10 / P50 / P90	Rs 0 / Rs 0 / Rs 0
Equity NPV P10 at tested fee	Rs -1,225 Cr
Gross lifetime equity calls P90	Rs 7,332 Cr



Fee-limit histogram; null paths are separate. Subjective scenario sample, not market probabilities.

The deterministic downside combines traffic -15%, growth -1 percentage point, non-aero -15%, opex +10%, capex +20%, interest +1.5 percentage points and two extra years of delay. It has no assigned probability. The separate simulated sample varies the disclosed factors independently. Neither analysis prices a competitor's willingness to pay or guarantees financing.

Full 500-row path data for this group are in the delivered simulation CSV / JSON. Infeasible limits are null and enter unconditional percentiles as zero with an explicit separate count.

BUNDLE OPERATING STRATEGY

B3 | VNS + GAY + KBK | sustainable business case

The preferred operating discipline combines verified aviation charges, measured commercial conversion, shared procurement where permitted, flexible regional concessions and retained capital. It does not depend on speculative parcel sales, guaranteed combined tariffs or a forecast of new flying created by surface shuttles.

Explicit opportunity case	Tested input
Net non-aero first-FY yield	Base Rs 200 + Rs 100 = Rs 300 per passenger
Fixed operating cost	10% lower than the base input; statutory service levels protected
Later lifecycle budget	20% lower after initial works; subject to approved scope
Initial capex / consideration	Unchanged
Opportunity base fee ceiling	Rs 15
Opportunity downside fee ceiling	Fails at zero
Opportunity protected policy band	Hold

The opportunity case is not inserted into the default recommended price. Additional yield requires signed net concessions, validated spend and appropriate regulatory treatment; fixed savings require a service-level staffing/procurement plan; later budget savings require engineering scope approval. Treat a favourable result as a work programme, not immediate auction value.

Access contribution

At the FY2026 traffic base and first-FY rates, eligible airport route receipts total about Rs 0.29 crore against annual programme fixed costs of Rs 0.09 crore, before the additional bay/integration investment. Operator receipts are not gross airport revenue. The modelling gives no new air traffic credit. Size or co-fund pilots whose airport NPV is negative.

Retain cash for later condition-based works. Before any distribution, check the next construction milestones, statutory minima, DSRA needs, seasonal working capital and committed sponsor capacity. A more ambitious commercial scheme must carry its own capital, rights and downside rather than borrowing credibility from the anchor airport's passenger base.

BUNDLE GOVERNANCE

B3 | VNS + GAY + KBK | risk ownership & pre-bid action

Risk interface	Owner / required work	Bid response
Tender and fee definition	Legal/commercial: final version-controlled pack	Reprice after passenger and indexation definitions
Asset/CWIP and scope	Engineering/QS: condition, paid/unpaid inventory, warranty and quantities	One inventory for consideration plus remaining capex
Capacity and delivery	Airport operations/project lead: peaks, stands, utilities and permits	No volume credit before funded integrated opening
Revenue / regulatory	Tariff adviser/commercial: airport orders, concessions and treatment	No assumed tariff pooling or property right
Transport / catchment	Surface access lead: O&D, existing services, permits and priced pilot	Zero incremental airport demand until evidenced
Liquidity / lending	CFO: committed equity, debt terms, reserves and downside waterfall	No binding bid with unspecified sponsor headroom
City / safeguarding	Aerodrome specialist: thresholds, terrain, obstacles, CNS and procedures	No reliance on illustrative height clearance

Request schedule-level evidence rather than a general assurance that works are complete or land is available. Document the physical asset, commercial obligation, responsible party and payment basis. A promised airport extension, municipal link or exclusivity protection is not part of the base case without an enforceable agreement.

Keep airport operating costs separate enough to audit the regional assets, while valuing the legally defined group as a whole. Tax, tariffs, security and financing do not necessarily pool merely because the transaction bundles airports. The shareholder model is an analytical aggregate, not confirmation of the eventual concession entity structure.

Current committee resolution

Continue diligence and operator/contract market testing; do not release a binding passenger fee from the default protected screen. Use the allowance and commercial/engineering cases to identify which negotiation or scope changes have enough value to reopen the price decision. Record any deliberately accepted downside against actual sponsor funding authority.

BUNDLE APPRAISAL

B4 | TRZ + TIR | bid decision

Protected recommendation: Hold / restructure at the default Rs 500 crore allowance. The base-only target is a diagnostic price and is not resilient to the combined downside assumptions.

Decision metric	Result
Base-only opening / target / hard stop	No supported base bid
Base fee ceiling	Fails at zero
Downside fee ceiling	Fails at zero
Base equity NPV at diagnostic target	Rs -392 Cr
Minimum base / downside DSCR	1.28x / 0.76x
Downside NPV at diagnostic target	Rs -1,208 Cr
Downside NPV at zero fee	Rs -1,208 Cr

The fee is first-operating-year rupees per domestic-equivalent billable passenger. Actual fee base, international weighting, escalation, exemptions and start date are unverified. A change in these mechanics requires a fresh price, not a percentage adjustment to a quoted headline.

Total consideration Cr	Base ceiling	Downside ceiling	Protected target
0	Rs 25	Fails at zero	Hold
500	Fails at zero	Fails at zero	Hold
1,000	Fails at zero	Fails at zero	Hold
2,000	Fails at zero	Fails at zero	Hold

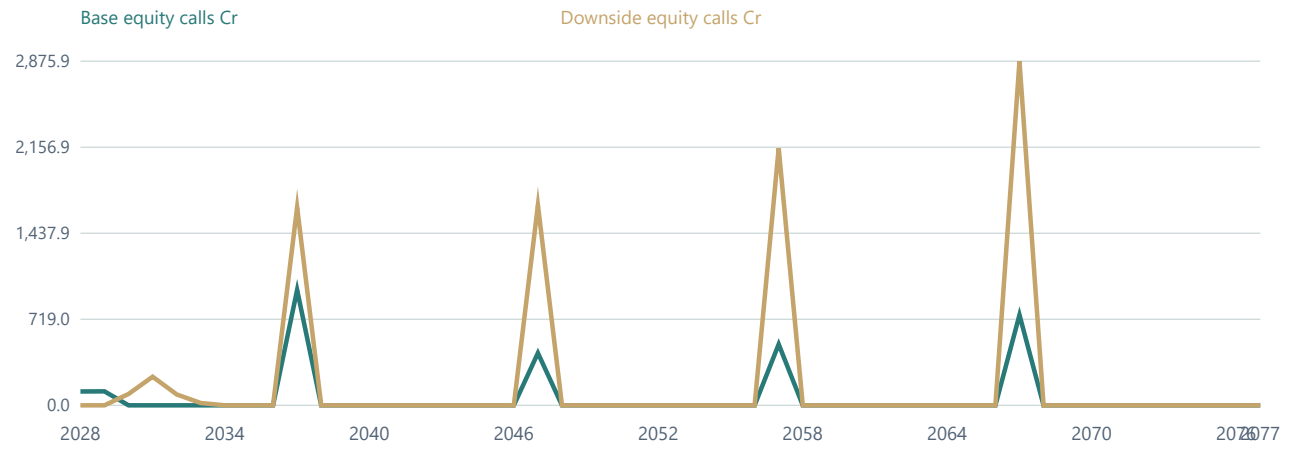
Consideration is a total scenario per group, not per airport and not additive to the workbench's unknown upfront fields. It is funded in cash at t0 without assumed tax basis or borrowing. Any real transferred asset cost must be reconciled against the capital plan to prevent double counting.

BUNDLE APPRAISAL

B4 | TRZ + TIR | capital & liquidity

Airport	Initial Cr	Lifecycle Cr	Reported FY26 M
TRZ	931	3,790	2.221
TIR	480	1,830	1.196

Funding measure at base-only target	Base	Combined downside
Nominal full capex Cr	13,288	16,039
Gross sponsor calls through phase 1 Cr	935	1,171
Gross calls after phase 1 Cr	2,666	8,370
Total gross calls Cr	3,602	9,541
Cumulative distributions Cr	33,723	23,727
Largest single equity call Cr	964	2,876
Largest call year	2037	2067



Annual equity injections; t0 is separately included in totals. Nominal amounts.

A long-life project may distribute cash and later require new sponsor capital. The figures above are gross annual calls, not a discounted investment value and not all due at commencement. No sponsor equity budget is specified in the default case; that is an unresolved funding gate. Retention reduces avoidable recycling but cannot fund every adverse works tranche.

Initial airport capex Rs 1,411 Cr is included in lifecycle amounts. Access capex is additional. Later works and unknown consideration are equity funded in this model.

BUNDLE FINANCIAL APPENDIX

B4 | TRZ + TIR | annual cash flow 1/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
0 / 2027	0.00	0	0	0	472	N/A	703	0	13
1 / 2028	3.14	267	0	148	472	3.12	116	0	19
2 / 2029	3.30	292	0	164	489	2.44	117	0	32
3 / 2030	3.46	319	0	182	0	1.28	0	3	67
4 / 2031	3.63	348	0	202	0	1.44	0	59	65
5 / 2032	3.82	380	0	223	0	1.61	0	79	62
6 / 2033	4.01	415	0	247	0	1.82	0	100	59
7 / 2034	4.21	453	0	272	0	2.06	0	123	57
8 / 2035	4.42	495	0	301	0	2.34	0	0	203
9 / 2036	4.57	532	0	326	0	2.63	0	0	371
10 / 2037	4.73	573	0	354	1,498	3.15	964	0	49
11 / 2038	4.90	617	0	383	0	3.55	0	240	47
12 / 2039	5.07	664	0	415	0	4.01	0	268	44
13 / 2040	5.25	715	0	450	0	4.56	0	297	41
14 / 2041	5.43	769	0	487	0	5.20	0	329	39
15 / 2042	5.62	828	0	527	0	5.96	0	363	36
16 / 2043	5.82	891	0	570	0	6.87	0	399	34
17 / 2044	6.02	959	0	617	0	7.98	0	438	31

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE FINANCIAL APPENDIX

B4 | TRZ + TIR | annual cash flow 2/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
18 / 2045	6.23	1,032	0	668	0	N/A	0	0	565
19 / 2046	6.45	1,111	0	722	0	N/A	0	0	1,140
20 / 2047	6.61	1,185	0	773	2,217	N/A	437	0	0
21 / 2048	6.66	1,240	0	810	0	N/A	0	657	0
22 / 2049	6.70	1,299	0	849	0	N/A	0	680	0
23 / 2050	6.75	1,360	0	889	0	N/A	0	710	0
24 / 2051	6.79	1,424	0	932	0	N/A	0	742	0
25 / 2052	6.84	1,491	0	977	0	N/A	0	776	0
26 / 2053	6.89	1,561	0	1,024	0	N/A	0	811	0
27 / 2054	6.93	1,635	0	1,073	0	N/A	0	848	0
28 / 2055	6.95	1,704	0	1,119	0	N/A	0	0	882
29 / 2056	6.95	1,773	0	1,164	0	N/A	0	0	1,798
30 / 2057	6.95	1,843	0	1,210	3,282	N/A	510	0	0
31 / 2058	6.95	1,917	0	1,259	0	N/A	0	1,009	0
32 / 2059	6.95	1,994	0	1,309	0	N/A	0	1,047	0
33 / 2060	6.95	2,074	0	1,362	0	N/A	0	1,086	0
34 / 2061	6.95	2,157	0	1,416	0	N/A	0	1,127	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE FINANCIAL APPENDIX

B4 | TRZ + TIR | annual cash flow 3/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
35 / 2062	6.95	2,243	0	1,473	0	N/A	0	1,169	0
36 / 2063	6.95	2,333	0	1,532	0	N/A	0	1,213	0
37 / 2064	6.95	2,426	0	1,593	0	N/A	0	1,259	0
38 / 2065	6.95	2,523	0	1,657	0	N/A	0	0	1,306
39 / 2066	6.95	2,624	0	1,723	0	N/A	0	0	2,662
40 / 2067	6.95	2,729	0	1,792	4,858	N/A	755	0	0
41 / 2068	6.95	2,838	0	1,863	0	N/A	0	1,494	0
42 / 2069	6.95	2,951	0	1,938	0	N/A	0	1,550	0
43 / 2070	6.95	3,069	0	2,015	0	N/A	0	1,607	0
44 / 2071	6.95	3,192	0	2,096	0	N/A	0	1,668	0
45 / 2072	6.95	3,320	0	2,180	0	N/A	0	1,730	0
46 / 2073	6.95	3,453	0	2,267	0	N/A	0	1,795	0
47 / 2074	6.95	3,591	0	2,358	0	N/A	0	1,863	0
48 / 2075	6.95	3,734	0	2,452	0	N/A	0	1,934	0
49 / 2076	6.95	3,884	0	2,550	0	N/A	0	2,007	0
50 / 2077	6.95	4,039	0	2,652	0	N/A	0	2,244	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

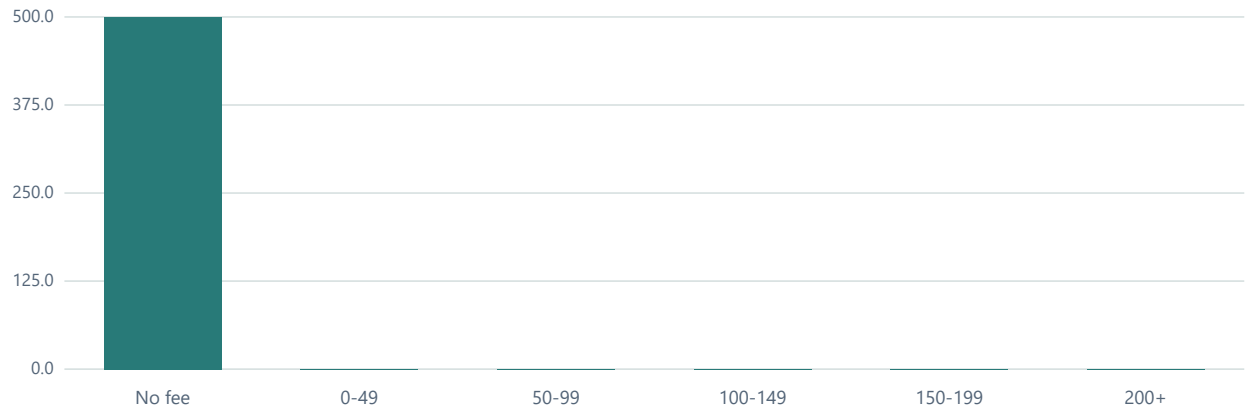
Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE RISK APPRAISAL

B4 | TRZ + TIR | stress and simulations

Passenger fee Rs	Base NPV Cr	Down NPV Cr	Base DSCR	Down DSCR
0	-392	-1,208	1.28	0.76
25	-499	-1,298	1.21	0.69
50	-606	-1,392	1.13	0.62
75	-716	-1,488	1.05	0.55
100	-828	-1,586	0.95	0.49
125	-941	-1,688	0.85	0.42
150	-1,058	-1,792	0.75	0.35
175	-1,177	-1,899	0.65	0.28
200	-1,299	-2,007	0.55	0.21

500 seeded paths: diagnostic target Rs 0	Result
Passes at target	0 / 500 (0%)
Infeasible even at fee zero	500 / 500
Fee limit P10 / P50 / P90	Rs 0 / Rs 0 / Rs 0
Equity NPV P10 at tested fee	Rs -964 Cr
Gross lifetime equity calls P90	Rs 7,079 Cr



Fee-limit histogram; null paths are separate. Subjective scenario sample, not market probabilities.

The deterministic downside combines traffic -15%, growth -1 percentage point, non-aero -15%, opex +10%, capex +20%, interest +1.5 percentage points and two extra years of delay. It has no assigned probability. The separate simulated sample varies the disclosed factors independently. Neither analysis prices a competitor's willingness to pay or guarantees financing.

Full 500-row path data for this group are in the delivered simulation CSV / JSON. Infeasible limits are null and enter unconditional percentiles as zero with an explicit separate count.

BUNDLE OPERATING STRATEGY

B4 | TRZ + TIR | sustainable business case

The preferred operating discipline combines verified aviation charges, measured commercial conversion, shared procurement where permitted, flexible regional concessions and retained capital. It does not depend on speculative parcel sales, guaranteed combined tariffs or a forecast of new flying created by surface shuttles.

Explicit opportunity case	Tested input
Net non-aero first-FY yield	Base Rs 200 + Rs 100 = Rs 300 per passenger
Fixed operating cost	10% lower than the base input; statutory service levels protected
Later lifecycle budget	20% lower after initial works; subject to approved scope
Initial capex / consideration	Unchanged
Opportunity base fee ceiling	Rs 10
Opportunity downside fee ceiling	Fails at zero
Opportunity protected policy band	Hold

The opportunity case is not inserted into the default recommended price. Additional yield requires signed net concessions, validated spend and appropriate regulatory treatment; fixed savings require a service-level staffing/procurement plan; later budget savings require engineering scope approval. Treat a favourable result as a work programme, not immediate auction value.

Access contribution

At the FY2026 traffic base and first-FY rates, eligible airport route receipts total about Rs 0.35 crore against annual programme fixed costs of Rs 0.08 crore, before the additional bay/integration investment. Operator receipts are not gross airport revenue. The modelling gives no new air traffic credit. Size or co-fund pilots whose airport NPV is negative.

Retain cash for later condition-based works. Before any distribution, check the next construction milestones, statutory minima, DSRA needs, seasonal working capital and committed sponsor capacity. A more ambitious commercial scheme must carry its own capital, rights and downside rather than borrowing credibility from the anchor airport's passenger base.

BUNDLE GOVERNANCE

B4 | TRZ + TIR | risk ownership & pre-bid action

Risk interface	Owner / required work	Bid response
Tender and fee definition	Legal/commercial: final version-controlled pack	Reprice after passenger and indexation definitions
Asset/CWIP and scope	Engineering/QS: condition, paid/unpaid inventory, warranty and quantities	One inventory for consideration plus remaining capex
Capacity and delivery	Airport operations/project lead: peaks, stands, utilities and permits	No volume credit before funded integrated opening
Revenue / regulatory	Tariff adviser/commercial: airport orders, concessions and treatment	No assumed tariff pooling or property right
Transport / catchment	Surface access lead: O&D, existing services, permits and priced pilot	Zero incremental airport demand until evidenced
Liquidity / lending	CFO: committed equity, debt terms, reserves and downside waterfall	No binding bid with unspecified sponsor headroom
City / safeguarding	Aerodrome specialist: thresholds, terrain, obstacles, CNS and procedures	No reliance on illustrative height clearance

Request schedule-level evidence rather than a general assurance that works are complete or land is available. Document the physical asset, commercial obligation, responsible party and payment basis. A promised airport extension, municipal link or exclusivity protection is not part of the base case without an enforceable agreement.

Keep airport operating costs separate enough to audit the regional assets, while valuing the legally defined group as a whole. Tax, tariffs, security and financing do not necessarily pool merely because the transaction bundles airports. The shareholder model is an analytical aggregate, not confirmation of the eventual concession entity structure.

Current committee resolution

Continue diligence and operator/contract market testing; do not release a binding passenger fee from the default protected screen. Use the allowance and commercial/engineering cases to identify which negotiation or scope changes have enough value to reopen the price decision. Record any deliberately accepted downside against actual sponsor funding authority.

BUNDLE APPRAISAL

B5 | RPR + IXU | bid decision

Protected recommendation: Hold / restructure at the default Rs 500 crore allowance. The base-only target is a diagnostic price and is not resilient to the combined downside assumptions.

Decision metric	Result
Base-only opening / target / hard stop	No supported base bid
Base fee ceiling	Fails at zero
Downside fee ceiling	Fails at zero
Base equity NPV at diagnostic target	Rs -688 Cr
Minimum base / downside DSCR	1.36x / 0.82x
Downside NPV at diagnostic target	Rs -1,272 Cr
Downside NPV at zero fee	Rs -1,272 Cr

The fee is first-operating-year rupees per domestic-equivalent billable passenger. Actual fee base, international weighting, escalation, exemptions and start date are unverified. A change in these mechanics requires a fresh price, not a percentage adjustment to a quoted headline.

Total consideration Cr	Base ceiling	Downside ceiling	Protected target
0	Fails at zero	Fails at zero	Hold
500	Fails at zero	Fails at zero	Hold
1,000	Fails at zero	Fails at zero	Hold
2,000	Fails at zero	Fails at zero	Hold

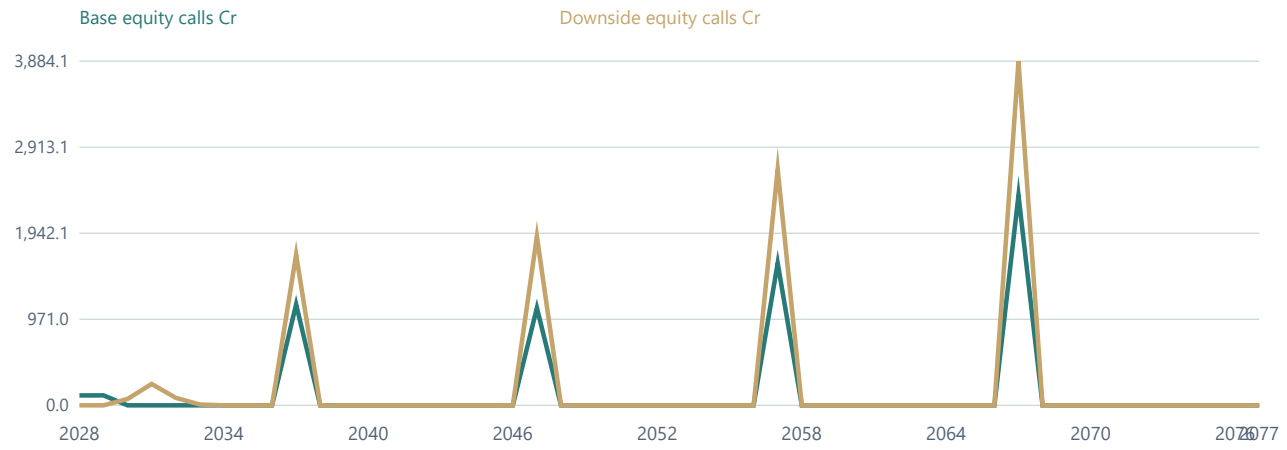
Consideration is a total scenario per group, not per airport and not additive to the workbench's unknown upfront fields. It is funded in cash at t0 without assumed tax basis or borrowing. Any real transferred asset cost must be reconciled against the capital plan to prevent double counting.

BUNDLE APPRAISAL

B5 | RPR + IXU | capital & liquidity

Airport	Initial Cr	Lifecycle Cr	Reported FY26 M
RPR	1,086	3,980	2.763
IXU	410	1,910	0.628

Funding measure at base-only target	Base	Combined downside
Nominal full capex Cr	13,893	16,772
Gross sponsor calls through phase 1 Cr	938	1,158
Gross calls after phase 1 Cr	6,212	10,164
Total gross calls Cr	7,151	11,322
Cumulative distributions Cr	22,409	17,870
Largest single equity call Cr	2,370	3,884
Largest call year	2067	2067



Annual equity injections; t0 is separately included in totals. Nominal amounts.

A long-life project may distribute cash and later require new sponsor capital. The figures above are gross annual calls, not a discounted investment value and not all due at commencement. No sponsor equity budget is specified in the default case; that is an unresolved funding gate. Retention reduces avoidable recycling but cannot fund every adverse works tranche.

Initial airport capex Rs 1,496 Cr is included in lifecycle amounts. Access capex is additional. Later works and unknown consideration are equity funded in this model.

BUNDLE FINANCIAL APPENDIX

B5 | RPR + IXU | annual cash flow 1/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
0 / 2027	0.00	0	0	0	500	N/A	714	0	13
1 / 2028	3.52	299	0	172	500	3.38	112	0	20
2 / 2029	3.68	325	0	189	519	2.60	112	0	34
3 / 2030	3.84	353	0	208	0	1.36	0	14	71
4 / 2031	3.91	375	0	221	0	1.48	0	69	69
5 / 2032	3.94	392	0	232	0	1.60	0	81	66
6 / 2033	3.97	411	0	244	0	1.72	0	94	63
7 / 2034	4.00	431	0	256	0	1.87	0	107	60
8 / 2035	4.03	452	0	269	0	2.03	0	0	178
9 / 2036	4.06	473	0	282	0	2.20	0	0	311
10 / 2037	4.09	496	0	296	1,564	2.59	1,139	0	52
11 / 2038	4.12	519	0	311	0	2.83	0	184	49
12 / 2039	4.16	545	0	327	0	3.11	0	200	47
13 / 2040	4.19	571	0	343	0	3.43	0	216	44
14 / 2041	4.23	599	0	360	0	3.79	0	233	41
15 / 2042	4.26	628	0	379	0	4.22	0	251	39
16 / 2043	4.30	659	0	398	0	4.73	0	269	36
17 / 2044	4.34	691	0	419	0	5.33	0	289	33

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

Cash is the closing reserve and retained balance. Calls include reserve shortfalls; distributions occur above the cash target. The HTML exports full debt, tax and working-capital bridges. Appendix F defines the formulas.

Initial debt principal begins in operating year 3; later lifecycle base-price tranches at years 10, 20, 30, 40. Source: actual calculations from the disclosed default case; not reported financial results.

BUNDLE FINANCIAL APPENDIX

B5 | RPR + IXU | annual cash flow 2/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
18 / 2045	4.38	725	0	440	0	N/A	0	0	400
19 / 2046	4.42	761	0	463	0	N/A	0	0	784
20 / 2047	4.46	799	0	487	2,314	N/A	1,099	0	0
21 / 2048	4.49	836	0	510	0	N/A	0	436	0
22 / 2049	4.51	875	0	534	0	N/A	0	447	0
23 / 2050	4.54	915	0	560	0	N/A	0	466	0
24 / 2051	4.56	957	0	586	0	N/A	0	486	0
25 / 2052	4.59	1,001	0	614	0	N/A	0	507	0
26 / 2053	4.62	1,048	0	643	0	N/A	0	529	0
27 / 2054	4.65	1,096	0	674	0	N/A	0	551	0
28 / 2055	4.68	1,147	0	706	0	N/A	0	0	576
29 / 2056	4.70	1,199	0	739	0	N/A	0	0	1,176
30 / 2057	4.70	1,247	0	768	3,426	N/A	1,605	0	0
31 / 2058	4.70	1,297	0	799	0	N/A	0	669	0
32 / 2059	4.70	1,349	0	831	0	N/A	0	692	0
33 / 2060	4.70	1,403	0	864	0	N/A	0	717	0
34 / 2061	4.70	1,459	0	899	0	N/A	0	743	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

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BUNDLE FINANCIAL APPENDIX

B5 | RPR + IXU | annual cash flow 3/3

Fixed snapshot at a Rs 0 diagnostic fee (zero if the base case fails). Money is nominal Rs crore; passenger throughput is million. NPV uses actual sponsor distributions less calls at the 15% hurdle. These tables collectively include t0 and all 50 operating years.

t / FY	Pax M	Revenue	AAI fee	EBITDA	Capex	DSCR	Call	Distrib.	Cash
35 / 2062	4.70	1,517	0	935	0	N/A	0	770	0
36 / 2063	4.70	1,578	0	972	0	N/A	0	798	0
37 / 2064	4.70	1,641	0	1,011	0	N/A	0	827	0
38 / 2065	4.70	1,707	0	1,052	0	N/A	0	0	857
39 / 2066	4.70	1,775	0	1,094	0	N/A	0	0	1,746
40 / 2067	4.70	1,846	0	1,137	5,071	N/A	2,370	0	0
41 / 2068	4.70	1,920	0	1,183	0	N/A	0	990	0
42 / 2069	4.70	1,997	0	1,230	0	N/A	0	1,025	0
43 / 2070	4.70	2,076	0	1,279	0	N/A	0	1,062	0
44 / 2071	4.70	2,159	0	1,331	0	N/A	0	1,100	0
45 / 2072	4.70	2,246	0	1,384	0	N/A	0	1,140	0
46 / 2073	4.70	2,336	0	1,439	0	N/A	0	1,181	0
47 / 2074	4.70	2,429	0	1,497	0	N/A	0	1,224	0
48 / 2075	4.70	2,526	0	1,557	0	N/A	0	1,269	0
49 / 2076	4.70	2,627	0	1,619	0	N/A	0	1,315	0
50 / 2077	4.70	2,732	0	1,684	0	N/A	0	1,457	0

Interpretation of these years

Revenue includes aero and baseline non-aero yield plus only eligible airport ground receipts. EBITDA is after the AAI fee and operating cost. Capital spend is below EBITDA. DSCR is after tax and working-capital changes but before lifecycle capex; the equity-call and retained-cash columns reveal capital shortfalls that DSCR alone would conceal.

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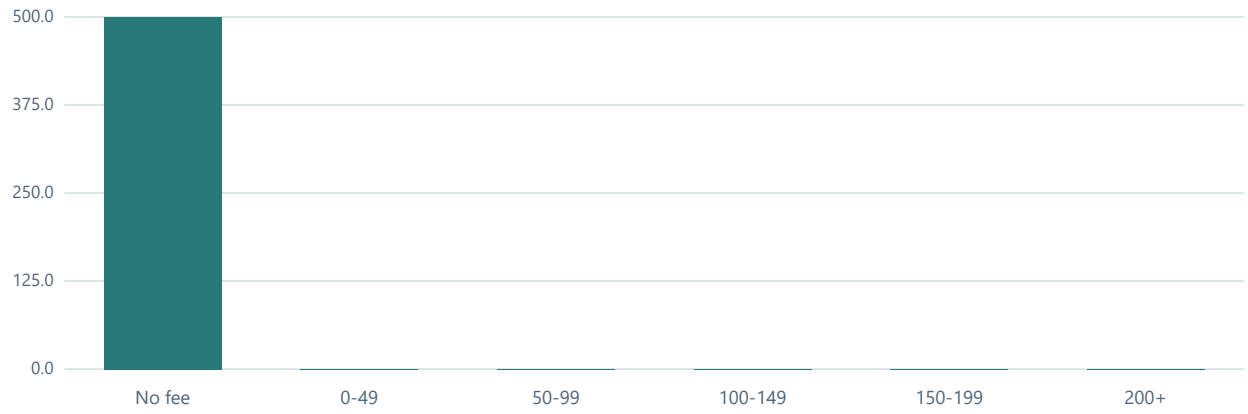
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BUNDLE RISK APPRAISAL

B5 | RPR + IXU | stress and simulations

Passenger fee Rs	Base NPV Cr	Down NPV Cr	Base DSCR	Down DSCR
0	-688	-1,272	1.36	0.82
25	-755	-1,336	1.31	0.77
50	-822	-1,401	1.25	0.72
75	-888	-1,468	1.20	0.67
100	-955	-1,538	1.14	0.62
125	-1,022	-1,608	1.08	0.57
150	-1,092	-1,680	1.01	0.52
175	-1,164	-1,753	0.94	0.47
200	-1,238	-1,828	0.87	0.42

500 seeded paths: diagnostic target Rs 0	Result
Passes at target	0 / 500 (0%)
Infeasible even at fee zero	500 / 500
Fee limit P10 / P50 / P90	Rs 0 / Rs 0 / Rs 0
Equity NPV P10 at tested fee	Rs -1,160 Cr
Gross lifetime equity calls P90	Rs 10,120 Cr



Fee-limit histogram; null paths are separate. Subjective scenario sample, not market probabilities.

The deterministic downside combines traffic -15%, growth -1 percentage point, non-aero -15%, opex +10%, capex +20%, interest +1.5 percentage points and two extra years of delay. It has no assigned probability. The separate simulated sample varies the disclosed factors independently. Neither analysis prices a competitor's willingness to pay or guarantees financing.

Full 500-row path data for this group are in the delivered simulation CSV / JSON. Infeasible limits are null and enter unconditional percentiles as zero with an explicit separate count.

BUNDLE OPERATING STRATEGY

B5 | RPR + IXU | sustainable business case

The preferred operating discipline combines verified aviation charges, measured commercial conversion, shared procurement where permitted, flexible regional concessions and retained capital. It does not depend on speculative parcel sales, guaranteed combined tariffs or a forecast of new flying created by surface shuttles.

Explicit opportunity case	Tested input
Net non-aero first-FY yield	Base Rs 200 + Rs 100 = Rs 300 per passenger
Fixed operating cost	10% lower than the base input; statutory service levels protected
Later lifecycle budget	20% lower after initial works; subject to approved scope
Initial capex / consideration	Unchanged
Opportunity base fee ceiling	Fails at zero
Opportunity downside fee ceiling	Fails at zero
Opportunity protected policy band	Hold

The opportunity case is not inserted into the default recommended price. Additional yield requires signed net concessions, validated spend and appropriate regulatory treatment; fixed savings require a service-level staffing/procurement plan; later budget savings require engineering scope approval. Treat a favourable result as a work programme, not immediate auction value.

Access contribution

At the FY2026 traffic base and first-FY rates, eligible airport route receipts total about Rs 0.37 crore against annual programme fixed costs of Rs 0.08 crore, before the additional bay/integration investment. Operator receipts are not gross airport revenue. The modelling gives no new air traffic credit. Size or co-fund pilots whose airport NPV is negative.

Retain cash for later condition-based works. Before any distribution, check the next construction milestones, statutory minima, DSRA needs, seasonal working capital and committed sponsor capacity. A more ambitious commercial scheme must carry its own capital, rights and downside rather than borrowing credibility from the anchor airport's passenger base.

BUNDLE GOVERNANCE

B5 | RPR + IXU | risk ownership & pre-bid action

Risk interface	Owner / required work	Bid response
Tender and fee definition	Legal/commercial: final version-controlled pack	Reprice after passenger and indexation definitions
Asset/CWIP and scope	Engineering/QS: condition, paid/unpaid inventory, warranty and quantities	One inventory for consideration plus remaining capex
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Liquidity / lending	CFO: committed equity, debt terms, reserves and downside waterfall	No binding bid with unspecified sponsor headroom
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Request schedule-level evidence rather than a general assurance that works are complete or land is available. Document the physical asset, commercial obligation, responsible party and payment basis. A promised airport extension, municipal link or exclusivity protection is not part of the base case without an enforceable agreement.

Keep airport operating costs separate enough to audit the regional assets, while valuing the legally defined group as a whole. Tax, tariffs, security and financing do not necessarily pool merely because the transaction bundles airports. The shareholder model is an analytical aggregate, not confirmation of the eventual concession entity structure.

Current committee resolution

Continue diligence and operator/contract market testing; do not release a binding passenger fee from the default protected screen. Use the allowance and commercial/engineering cases to identify which negotiation or scope changes have enough value to reopen the price decision. Record any deliberately accepted downside against actual sponsor funding authority.

APPENDIX A

Source register | traffic vintages

Each historic observation is retained with its source vintage. FY2021-FY2022 come from March 2022; FY2023-FY2024 from March 2024; FY2025-FY2026 from March 2026. This avoids silently mixing later revisions into an apparently homogeneous audit history.

AAI-MAR2022

AAI March 2022, Annexure III C (total passengers), April-March cumulative columns

Downloaded source SHA-256: 5ecd8160f91899353e91c9e2c6b1eda584ea4911e37283dc465181677de356b8

AAI-MAR2024

AAI March 2024, Annexure III C (total passengers), April-March cumulative columns

Downloaded source SHA-256: 05519ff2e895258c2817ac5663c8d79b56e597e4a39f4dbfc9b3107a4c2e1869

AAI-MAR2026

AAI March 2026, Annexure III C (total passengers), April-March cumulative columns

Downloaded source SHA-256: cf694f01fc623695298beb51aa09444f6131f6246792ee2a7e85c0b7f50e05b0

AAI figures are reported cumulative total passengers for April-March. They are not unique people and are not automatically the fee denominator in a concession. International counts and total counts were reconciled for FY2026. AAI source text includes bilingual labels and Indian digit grouping; extracted numerical values were checked at airport row level.

The local historic traffic CSV contains all 86 observations with links and vintages. Source files and extraction notes are retained in the reproducibility package. Where data-room audited records or later official revisions differ, preserve both versions and document the adjustment rather than overwrite the trail.

APPENDIX B

Source register | capacity 1

BBI | annual reference 4.400 MPPA

2022-23 capacity published 7 Aug 2023

Official dated baseline; current commissioning status not verified. T3 is under planning in AAI FY2026-27 capital budget.

Bid phase 1: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

HBX | annual reference 0.500 MPPA

Legacy dossier assumption; annual capacity unverified

Annual 0.5 Mppa is a legacy assumption. Official 2017 release supports 300 peak-hour passengers, not the annual figure.

Bid phase 1: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

ATQ | annual reference 4.100 MPPA

8 January 2025 official technical reference

New dated source 4.1 MPPA replaces previous 4.5 planning reference; commissioning/configuration confirmation still required. 6.5 MPPA is an AAI proposal, not automatic model capacity.

Bid phase 1: 8 January 2025 dated 4.1 MPPA reference; no proposed capacity credited by default.

DHM | annual reference 0.250 MPPA

Legacy dossier assumption; annual capacity unverified

Annual 0.25 Mppa is a legacy assumption. The 2023 SIA describes 100 simultaneous terminal passengers; not an annual capacity certificate.

Bid phase 1: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

VNS | annual reference 3.900 MPPA

Cabinet release 19 Jun 2024

Release distinguishes existing 3.9 from planned 9.9 Mppa; completion of expansion not verified.

Bid phase 1: Approved 9.9 MPPA target; FY2031 opening assumed, completion/concession scope unverified

GAY | annual reference 0.650 MPPA

Legacy dossier assumption; annual capacity unverified

Annual 0.65 Mppa is a legacy assumption. AAI profile gives 250 arriving and 250 departing passengers; annual capacity not established.

Bid phase 1: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

APPENDIX B

Source register | capacity 1 (continued)

A dated official capacity reference is not verification of the present commissioned configuration. Legacy annual estimates remain assumptions even where an official profile supplies simultaneous terminal accommodation. Approved projects establish scope context, not actual completion or cost responsibility.

APPENDIX B

Source register | capacity 2

KBK | annual reference 0.300 MPPA

Government capacity table 7 Aug 2023

Dated official annual capacity. Near-zero reported traffic is not evidence that capacity is zero.

Bid phase 1: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

TRZ | annual reference 4.450 MPPA

27 February 2026 official technical reference

New dated source 4.45 MPPA replaces previous 4.4 planning reference; commissioning/configuration confirmation still required. Next-stage capacity remains an analyst option.

Bid phase 1: 27 February 2026 dated 4.45 MPPA reference; no proposed capacity credited by default.

TIR | annual reference 2.500 MPPA

Government capacity table 7 Aug 2023

Dated official capacity; current changes not verified.

Bid phase 1: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

RPR | annual reference 3.200 MPPA

30 October 2025 official technical reference

New dated source 3.2 MPPA replaces previous 3.5 planning reference; commissioning/configuration confirmation still required. Next-stage capacity remains an analyst option.

Bid phase 1: 30 October 2025 dated 3.2 MPPA reference; no proposed capacity credited by default.

IXU | annual reference 1.500 MPPA

Legacy dossier assumption; current annual capacity unverified (legacy assumption; no annual-capacity source)

No current official annual-capacity certificate was established. Retained 1.5 Mppa is an editable assumption.

Bid phase 1: Existing dated/legacy annual reference retained. No extra capacity credited without an adopted project.

A dated official capacity reference is not verification of the present commissioned configuration. Legacy annual estimates remain assumptions even where an official profile supplies simultaneous terminal accommodation. Approved projects establish scope context, not actual completion or cost responsibility.

APPENDIX C

Source register | proposed ground links

BBI - CRUT express-service poster (historical route evidence; current timetable unverified)

HBX - Dharwad district: Hubballi airport serves the twin cities

ATQ - AAI transport page: prepaid taxis and SGPC free Golden Temple bus

DHM - HPTDC regional road/bus access; proposed airport feeder unverified

VNS - Varanasi district airport access; distances are general references

GAY - Gaya district travel reference; proposed service is an assumption

KBK - Kushinagar district travel reference; proposed service is an assumption

TRZ - Thanjavur district identifies Tiruchirappalli as nearest airport; page has stale airline names

TIR - Tirupati district APSRTC contacts; no airport service timetable verified

RPR - Durg district identifies Raipur airport as nearest; proposed shuttle unverified

IXU - Jalna district airport access reference; proposed coach unverified

Pages reviewed for geographic or historical service context may contain stale airline or timetable information. No route distance, current fare, exact road time, mode share or operator financial result in the pilot is asserted as official. Replace all assumptions with dated operator and survey evidence before tendering a service.

APPENDIX D

All eleven airports | six-year traffic audit

Code	FY21	FY22	FY23	FY24	FY25	FY26
BBI	1,571,933	2,135,893	3,624,905	4,600,615	4,838,751	5,130,834
HBX	119,072	188,342	322,701	358,835	346,405	376,286
ATQ	854,352	1,382,004	2,516,518	3,085,598	3,542,880	2,941,017
DHM	105,373	129,995	176,247	201,391	209,834	164,056
VNS	1,466,718	1,708,220	2,521,442	2,996,698	4,027,810	4,343,347
GAY	69,655	47,311	229,460	320,295	329,304	357,462
KBK	0	11,155	23,221	17,742	270	20
TRZ	355,903	556,707	1,514,260	1,763,942	1,956,851	2,221,024
TIR	352,375	623,341	919,267	870,662	995,640	1,196,176
RPR	1,041,070	1,407,157	2,251,998	2,432,118	2,572,031	2,763,498
IXU	145,561	250,989	468,486	623,915	700,402	628,152

The FY2026 portfolio sums to 20,121,872 movements. The original dossier used 20.67 million as an assumed base. These are passenger counts, not revenue, unique flyers, ticket sales, seats or load factor. International shares in the model are based on reported FY2026 international counts divided by total movements.

Code	International FY26	Share %
BBI	153,473	2.99
HBX	0	0.00
ATQ	997,408	33.91
DHM	0	0.00
VNS	142,578	3.28
GAY	91,104	25.49
KBK	0	0.00
TRZ	1,392,659	62.70
TIR	5	0.00
RPR	0	0.00
IXU	0	0.00

Sources: AAI-MAR2022, AAI-MAR2024, AAI-MAR2026. The contemporaneous source vintage is retained for each pair of years.

APPENDIX E

OLS parameter register & limitations

Parameter	Illustrative default
Threshold span / bearing	Dated AAI physical-end axis; threshold elevations/operational dates unvalidated; editable overrides
Approach setback / inner width	60 m / 280 m
Approach divergence	15% each side
Approach sections	3,000 m at 2%; 3,600 m at 2.5%; 8,400 m level thereafter
Take-off length / inner / final width	15,000 m / 180 m / 1,200 m
Take-off divergence / slope	12.5% / 2%
Strip half-width / transition slope	140 m / 14.3%
Inner-horizontal radius / height	4,000 m / 45 m above assumed reference
Conical slope / extra height	5% / 100 m
Terrain / city heights	Terrain flattened; most heights assumed
Surface selection	Minimum of intersecting modelled surfaces at sampled points

The inner horizontal and conical boundaries are simplified circles around mapped runway midpoints. This is deliberately not a certified composite OLS. The strip is separately flagged for special review. Runway classification, instrument category and the official aerodrome safeguarding record must determine real surfaces.

Building sampling is incomplete. Point/footprint tests do not include complete terrain, tree canopy, cranes or full procedure volumes. Height margin is a model diagnostic, not clearance. Verify ellipsoid/orthometric datums, official thresholds, CCZM, CNS and PANS-OPS with qualified aerodrome specialists before any obstruction conclusion or development commitment.

APPENDIX F

Financial formulas & audit bridges

Quantity	Formula / timing
Revenue Cr	Pax million x (aero + non-aero Rs/pax) / 10 + eligible net access receipts
Weighted fee movements	Pax x [1 + international share x (multiplier - 1)] x billable share
Fee Cr	Weighted pax million x first-FY Rs fee x annual indexation / 10
EBITDA	Revenue - operating cost - fee
Tax	Positive EBITDA less depreciation and interest, x assumed tax rate
CFADS	EBITDA - tax - working-capital change
DSCR	CFADS / (interest + principal), where service is positive
FCFE before cash retention	CFADS - debt service - capex + debt draw
Reserve and retention	Current-service reserve plus next selected years unfunded capex target
Sponsor equity flow	Distribution - new equity injection
Equity NPV	Sum sponsor flows / (1 + hurdle)^t, including t0
Initial budget identity	Initial once + later lifecycle = total lifecycle; access budget additional

Annual debt balances reconcile opening debt plus draws less principal. The cash waterfall reconciles opening cash plus pre-retention FCFE plus sponsor calls less distributions to closing cash. Working capital and final cash are released at expiry; terminal debt must be repaid. These arithmetic controls do not certify market inputs or actual lender covenant compliance.

Capex, consideration, debt, tax, reserve and cash-flow assumptions are disclosed in the methodology and underlying JSON. Nominal money must not be combined with a real discount rate without restating inflation consistently.

APPENDIX G

Scope, CWIP & land reconciliation template

Register field	Evidence / purpose
Unique asset / package ID	Drawing, quantity and contract reference; avoids duplicate spend
Current condition and completion	Independent condition survey and certified milestone
Already paid by AAI	Historical investment eligible for consideration reconciliation
Unpaid contracted commitment	Contract ledger, variation and payment certificates
Remaining completion works	QS estimate, contingency, schedule and responsible party
Defects / warranties	Assignment, defect liability and recovery rights
Land and permissions	Title, possession, acquisition, environmental and height approvals
Private mandatory scope	Concession schedule and compliance obligations
Discretionary opportunity	Separate approval case, net receipts and enabling costs
Regulatory treatment	Applicable tariff/RAB allocation and non-aero treatment
Handback remaining life	Condition standard, timing and terminal liabilities

Do not add a recovery payment for a completed asset to a budget that already represents buying that same completed asset. Conversely, do not remove completion costs merely because some historical investment transfers upfront. The correct bridge distinguishes asset purchase, unpaid liability, future works and land obligations at the same valuation date.

The report's Rs 8,622 crore initial and Rs 33,000 crore lifecycle totals are unverified inherited budget envelopes. Scenario consideration amounts do not constitute an estimate of asset book value or recoverable investment. The quantity surveyor, legal adviser and sponsor finance team must jointly close this register before price release.

APPENDIX H

Model validation & reproducibility record

Seventy-three software/arithmetic checks passed: 28 core financial/UI checks, 25 geospatial/traffic/catchment checks and 20 new bid-layer checks. The original broken callback was reproduced. The new browser simulation actually generated 500 paths and matched the independently calculated Amritsar-Dharamshala snapshot.

Control family	Verification performed
Independent finance fixture	Hand-calculated year-one revenue, interest, tax, FCFE and cash retention
Accounting integrity	All five base/downside budgets, debt, WC, reserves and cash bridges
Price behaviour	Consideration lowers NPV one-for-one; zero-fee failure remains infeasible
Funding	Gross equity cap can invalidate an otherwise economic price
Capacity	Traffic constrained before funded commissioning; delays defer release
Ground service	Negative operator-contribution routes get no receipt credit; KBK no schedule
Simulation	Seed/distribution bounds; all 500 B2 paths match pass/percentile statistics
User controls	Group changes, valid/invalid import, saved cases and actual CSV exports
Existing features	All eleven embedded GLBs, OLS probes, traffic series and catchment controls
Offline/mobile	No remote asset requests, no browser exceptions, 390 px overflow check

The PDF is a fixed publication snapshot; the HTML remains interactive. The delivered path CSV / JSON and full bid-case export reproduce the financial inputs. The editable Blender file, local GLBs and OSM manifest retain geometry provenance. Software checks establish consistency, not aerodrome safety, tariff entitlement, forecast reliability or financing approval.

Model sources and verification_results.json are supplied locally. No personal credentials or proprietary data-room records are embedded in the published HTML/PDF.

APPENDIX I

Investment conclusion & next appraisal revision

The current protected recommendation is Hold / restructure at a Rs 500 crore consideration allowance per group. Base-only fee bands are transparent diagnostic values, not a decision to proceed. A concession can be attractive after obligations are clarified; the present model does not support paying for unverified upside or treating unknown consideration as a fact.

The zero-consideration Amritsar-Dharamshala case is a useful negotiation marker: Rs 35 opening, Rs 40 target and Rs 45 hard stop under the disclosed assumptions. It is not evidence of a zero payment being offered, a winning auction price or an investable signed concession. Other groups require a different combination of scope, yield, timing, cost and consideration to pass the protected screen.

Next revision: replace the dominant unknowns

First, obtain the final tender and airport-specific tariff schedules. Second, close the asset/CWIP/land register and commission an integrated capacity and condition study. Third, obtain committed debt and sponsor equity with actual reserve and covenant terms. Fourth, complete passenger origins and access trials, then tender commercial and ground contracts on net receipts. Rerun all downside, fee and funding cases at that point.

Maintain clear accountability for safety, customer service and capital stewardship. Retain reserves and construction cash before shareholder distributions. Use partner-operated transport and modular commercial investments to limit fixed commitments. No unverified airport land, height clearance, pooling entitlement or traffic revival should be monetised in a binding offer.

Publication: Aeronova TIA Consultancy | 3 November 2026. Analytical working appraisal for review. The report and associated interactive dossier together provide a traceable basis for diligence and negotiation; final tender compliance and sponsor approval remain separate requirements.

INFRASTRUCTURE APPRAISAL

LOD 200 delivery and evidence coverage

The model contains eleven editable Blender airport collections and embedded GLBs rendered by Three.js. The published primary runway snapshot replaces the earlier OSM-only primary axis. Other airport footprints and city context retain community provenance. Approximate generic terminal/service envelopes support option appraisal; the model does not meet an as-built survey specification.

Coverage	Records
airports	11
assetRecords	735
officialBudgetSchemes	48
candidateProjects	32
unresolvedFields	110

The 735-record register includes mapped objects, official dated/reference quantities and 110 explicit unresolved systems/condition/title fields. A null quantity is not zero. Profile quantities do not establish current commissioning or serviceability. Asset ownership and residual life are not certified. Geometry is horizontal WGS84/local ENU; terrain and heights are mainly assumptions.

Equipment banks are generic assemblies only where a reported count was found. Power, HVAC, water, STP, fuel, drainage, pavement condition and security-throughput figures are deliberately not invented. Unknown or unplaced official projects remain in the register rather than being drawn on a speculative parcel.

Required next information

Obtain approved/as-built layout plans, topographic and obstacle surveys, current AIP/NOTAM, certified pavement and utility condition, terminal system schedules, peak-season operating data, cadastral/title records and AAI/CWIP responsibility matrices. These determine which generic assemblies can be replaced by survey-accurate information and which capital obligations should be priced.

LOD 200 ASSET APPRAISAL

BBI | existing infrastructure evidence

Published physical runway 2744 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 14/32	2,744 metres	AIP_BBI; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Reported total terminal area	31,737 sqm	BBI_TARIFF_2024; AAI/AERA 2024 reference; current configuration requires reconciliation
Passenger boarding bridges	4 units	BBI_TARIFF_2024; 2024 reference
Reported taxiways	10 units	BBI_TARIFF_2024; 2024 reference; not a current declared movement capacity
Annual terminal planning reference	4.40 MPPA	BBI_CAPACITY_2023; 2022-23 capacity published 7 Aug 2023; Official dated baseline; current commissioning status not verified. T3 is under planning in AAI FY2026-27 capital budget.

Mapped approximate airport elements by layer: runways 3, boundary 1, aprons 10, taxiways 40, terminals 3, buildings 10. These are not verified operational asset quantities.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

BBI | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	-6.0	4.0	3.5	2.0
down	-9.5	2.0	2.5	1.0
up	-3.5	6.0	4.5	3.0

FY	Down movements	Base movements	Up movements
2030	4,930,000	5,430,000	5,900,000
2035	5,440,000	6,600,000	7,890,000
2040	6,160,000	7,840,000	9,830,000
2050	7,540,000	10,580,000	14,620,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 10-40 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 1-6 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 130-245 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 7. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

HBX | existing infrastructure evidence

Published physical runway 2600 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 08/26	2,600 metres	AIP_HBX; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
2017 terminal area	3,600 sqm	HBX_2017; Official inauguration reference; later expansion status is separate
2017 terminal peak accommodation	300 passengers	HBX_2017; Simultaneous/peak reference, not annual capacity
Annual terminal planning reference	0.50 MPPA	ANALYST; Legacy dossier assumption; annual capacity unverified; Annual 0.5 Mppa is a legacy assumption. Official 2017 release supports 300 peak-hour passengers, not the annual figure.

Mapped approximate airport elements by layer: runways 3, taxiways 13, terminals 2, aprons 4, boundary 1. These are not verified operational asset quantities.

Source conflict: Undated AAI profile contains legacy TORA 1,674 m and small-terminal figures; later AIP gives physical runway 2,600 m. Use the dated records and verify current commissioning; do not merge inconsistent profile values.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

HBX | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	5.5	1.0	1.0	1.0
down	2.0	-1.0	0.0	0.0
up	8.5	3.0	2.0	2.0

FY	Down movements	Base movements	Up movements
2030	370,000	410,000	450,000
2035	350,000	430,000	520,000
2040	350,000	450,000	570,000
2050	350,000	500,000	700,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 2-12 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 0-3 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 35-65 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 7. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

ATQ | existing infrastructure evidence

Published physical runway 3658 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 16/34	3,658 metres	AIP_ATQ; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Profile reported building area	40,175 sqm	ATQ_PROFILE; Profile includes 9,000 sqm under development; current area/status ambiguous Supersession: newer dated facts appear in the published layout/masterplan review.
Profile peak-hour terminal capacity	1,200 PHP	ATQ_PROFILE; Undated official profile, not current performance certificate Supersession: newer dated facts appear in the published layout/masterplan review.
CUTE check-in bank	30 counters	ATQ_PROFILE; Undated profile; generic assembly location only
Self-service kiosks	6 units	ATQ_PROFILE; Undated profile Supersession: newer dated facts appear in the published layout/masterplan review.
Departure immigration bank	12 counters	ATQ_PROFILE; Undated profile
Arrival immigration bank	16 counters	ATQ_PROFILE; Undated profile
Passenger boarding bridges	4 units	ATQ_PROFILE; Undated profile Supersession: newer dated facts appear in the published layout/masterplan review.
Passenger aircraft parking stands	25 stands	ATQ_PROFILE; Profile also lists one cargo stand; verify current layout Supersession: newer dated facts appear in the published layout/masterplan review.
Cargo parking stand	1 stand	ATQ_PROFILE; Undated profile Supersession: newer dated facts appear in the published layout/masterplan review.
Reported aircraft fire tenders	4 vehicles	ATQ_PROFILE; Profile category 8; not verified as current rescue capability Supersession: newer dated facts appear in the published layout/masterplan review.
Annual terminal planning reference	4.50 MPPA	ATQ_PROFILE; AAI airport profile, reviewed 1 Nov 2026 (page undated); AAI profile annual capacity. Older 2023 government table lists 4.0; current reconciliation required. Supersession: newer dated facts appear in the published layout/masterplan review.

LOD 200 ASSET APPRAISAL

ATQ | existing infrastructure evidence (continued)

Reported asset / facility	Quantity	Evidence and limitation
Terminal area	40,175 sqm	ATQ_AAI_PPT_2025; 8 January 2025, PDF page 23; published configuration, present serviceability not certified
Annual terminal reference	4.10 MPPA	ATQ_AAI_PPT_2025; 8 January 2025, PDF page 5; published configuration, present serviceability not certified
Terminal peak accommodation	1,600 PHP	ATQ_AAI_PPT_2025; 8 January 2025, PDF page 5; published configuration, present serviceability not certified
Aircraft parking positions reported	25 positions	ATQ_AAI_PPT_2025; 8 January 2025, PDF page 5; published configuration, present serviceability not certified
Check-in counters	33 counters	ATQ_AAI_PPT_2025; 8 January 2025, PDF page 5; published configuration, present serviceability not certified
Self check-in kiosks	6 kiosks	ATQ_AAI_PPT_2025; 8 January 2025, PDF page 5; published configuration, present serviceability not certified
Passenger boarding bridges	4 bridges	ATQ_AAI_PPT_2025; 8 January 2025, PDF page 4; published configuration, present serviceability not certified

Mapped approximate airport elements by layer: aprons 17, buildings 100, taxiways 105, runways 2, terminals 1, boundary 1, systems 3. These are not verified operational asset quantities.

Source conflict: Masterplan review: 4.1 MPPA (8 January 2025) replaces earlier 4.5 reference. Source vintages differ; no present commissioning certificate supplied.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

LOD 200 ASSET APPRAISAL

ATQ | existing infrastructure evidence (continued) (continued)

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

ATQ | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	-2.0	3.0	2.5	2.0
down	-5.5	1.0	1.5	1.0
up	1.0	5.0	3.5	3.0

FY	Down movements	Base movements	Up movements
2030	2,860,000	3,150,000	3,440,000
2035	3,010,000	3,650,000	4,390,000
2040	3,240,000	4,130,000	5,210,000
2050	3,710,000	5,210,000	7,250,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 10-40 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 1-6 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 130-245 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 7. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

DHM | existing infrastructure evidence

Published physical runway 1376 x 30 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 15/33	1,376 metres	AIP_DHM; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Annual terminal planning reference	0.25 MPPA	ANALYST; Legacy dossier assumption; annual capacity unverified; Annual 0.25 Mppa is a legacy assumption. The 2023 SIA describes 100 simultaneous terminal passengers; not an annual capacity certificate.

Mapped approximate airport elements by layer: runways 2, boundary 1, aprons 4, taxiways 5, terminals 2, buildings 3. These are not verified operational asset quantities.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

DHM | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	6.5	3.0	2.5	2.0
down	3.5	1.0	1.5	1.0
up	9.0	5.0	3.5	3.0

FY	Down movements	Base movements	Up movements
2030	170,000	190,000	210,000
2035	180,000	220,000	260,000
2040	200,000	250,000	310,000
2050	230,000	320,000	440,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 2-12 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 0-3 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 35-65 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 0. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

VNS | existing infrastructure evidence

Published physical runway 2746 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 09/27	2,746 metres	AIP_VNS; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Annual terminal planning reference	3.90 MPPA	VNS_APPROVAL_2024; Cabinet release 19 Jun 2024; Release distinguishes existing 3.9 from planned 9.9 Mppa; completion of expansion not verified. Supersession: newer dated facts appear in the published layout/masterplan review.
Existing terminal area	24,000 sqm	VNS_AAI_PPT_2024; 11 November 2024, PDF page 26; published configuration, present serviceability not certified
Existing annual terminal reference	3.90 MPPA	VNS_AAI_PPT_2024; 11 November 2024, PDF page 26; published configuration, present serviceability not certified
Existing terminal peak accommodation	1,050 PHP	VNS_AAI_PPT_2024; 11 November 2024, PDF page 26; published configuration, present serviceability not certified
Aircraft parking positions reported	11 positions	VNS_AAI_PPT_2024; 11 November 2024, PDF page 26; published configuration, present serviceability not certified

Mapped approximate airport elements by layer: runways 2, aprons 7, taxiways 15, boundary 1, terminals 1, buildings 1. These are not verified operational asset quantities.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

LOD 200 ASSET APPRAISAL

VNS | existing infrastructure evidence (continued)

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

VNS | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	-4.0	6.0	3.5	2.0
down	-7.5	4.0	2.5	1.0
up	-1.5	8.0	4.5	3.0

FY	Down movements	Base movements	Up movements
2030	4,520,000	4,970,000	5,390,000
2035	5,500,000	6,650,000	7,920,000
2040	6,220,000	7,890,000	9,870,000
2050	7,620,000	10,660,000	14,670,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 10-40 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 1-6 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Integrate the approved 9.9 MPPA programme before further expansion

Verify approved 75,000 sqm terminal, airfield/apron scope and actual construction milestones

Cost responsibility unresolved. No duplicate modular terminal proposed against the obsolete 3.9 MPPA reference. FY2031 capacity in the bid case is an explicit assumed date, not a verified opening. Approved runway geometry is unplaced without alignment drawings; published existing geometry is retained.

Authority budget scheme references for this airport: 5. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

GAY | existing infrastructure evidence

Published physical runway 2287 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 10/28	2,287 metres	AIP_GAY; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Narrative terminal area	7,500 sqm	GAY_PROFILE; Same page table says 11,000 sqm: unresolved source conflict
Profile table terminal area	11,000 sqm	GAY_PROFILE; Conflicts with 7,500 sqm narrative; no canonical current GFA adopted
Arrival accommodation	250 passengers	GAY_PROFILE; Simultaneous accommodation, not annual capacity
Departure accommodation	250 passengers	GAY_PROFILE; Simultaneous accommodation, not annual capacity
Passenger aircraft parking bays	3 bays	GAY_PROFILE; Profile lists two with aerobridges and one remote
Passenger boarding bridges	2 units	GAY_PROFILE; Undated official profile
Isolation bay	1 bay	GAY_PROFILE; Profile nominal 76x76 m; exact current placement unverified
CUTE check-in bank	6 counters	GAY_PROFILE; Profile separates four boarding gate counters; not 10 check-in counters
CUSS kiosks	2 units	GAY_PROFILE; Undated official profile
Immigration bank	12 counters	GAY_PROFILE; Undated official profile
Annual terminal planning reference	0.65 MPPA	ANALYST; Legacy dossier assumption; annual capacity unverified; Annual 0.65 Mppa is a legacy assumption. AAI profile gives 250 arriving and 250 departing passengers; annual capacity not established.

Mapped approximate airport elements by layer: runways 2, aprons 6, boundary 1, taxiways 6, terminals 1, systems 2. These are not verified operational asset quantities.

Source conflict: Official profile narrative 7,500 sqm conflicts with table 11,000 sqm. Both are retained as source references; current terminal GFA is unresolved.

Source conflict: AAI published physical runway 2287 m differs from OSM measured centreline about 2201 m. LOD 200 primary runway uses the published-coordinate snapshot; NOTAM not checked.

LOD 200 ASSET APPRAISAL

GAY | existing infrastructure evidence (continued)

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule

LOD 200 ASSET APPRAISAL

GAY | existing infrastructure evidence (continued) (continued)

Unresolved public evidence	Action
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

GAY | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	-8.0	4.5	3.5	2.0
down	-12.5	2.5	2.5	1.0
up	-4.5	6.5	4.5	3.0

FY	Down movements	Base movements	Up movements
2030	340,000	380,000	410,000
2035	380,000	470,000	560,000
2040	430,000	560,000	700,000
2050	530,000	750,000	1,050,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 2-12 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 0-3 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 35-65 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 2. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

KBK | existing infrastructure evidence

Published physical runway 3200 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 11/29	3,200 metres	AIP_KBK; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Passenger terminal area	3,600 sqm	KBK_PROFILE; Official profile reference
Terminal peak accommodation	300 passengers	KBK_PROFILE; Profile peak-hour reference, not observed throughput
Apron aircraft parking stands	4 stands	KBK_PROFILE; Profile A321 stand reference; current operational status unverified
Reported airport land	589 acres	KBK_PROFILE; Reported area is not proof of title or developable area
Annual terminal planning reference	0.30 MPPA	BBI_CAPACITY_2023; Government capacity table 7 Aug 2023; Dated official annual capacity. Near-zero reported traffic is not evidence that capacity is zero.

Mapped approximate airport elements by layer: runways 2, taxiways 4, aprons 5, boundary 2, buildings 1, terminals 1. These are not verified operational asset quantities.

Source conflict: AAI published physical runway 3200 m differs from OSM measured centreline about 3901 m. LOD 200 primary runway uses the published-coordinate snapshot; NOTAM not checked.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

KBK | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	-100.0	0.0	0.0	0.0
down	-100.0	0.0	0.0	0.0
up	-100.0	0.0	0.0	0.0

FY	Down movements	Base movements	Up movements
2030	0	0	0
2035	0	0	0
2040	0	0	0
2050	0	0	0

Zero reported April-September 2026 passengers and no prior-year October-March remainder imply zero FY2027 under every default case. No percentage-growth revival is invented; activation requires an airline-backed scenario. FY2026 reported 20 movements remains the historical base.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 2-12 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 0-3 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Airline-backed activation and minimum-service readiness

Signed and sustainable airline/charter operating case, confirmed permissions and bounded holding cost

Additional allowance Rs 1-5 crore. No terminal or runway expansion is proposed from a base of 20 annual movements. Activation traffic is excluded from the default forecast.

Authority budget scheme references for this airport: 0. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

TRZ | existing infrastructure evidence

Published physical runway 2423 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 09/27	2,423 metres	AIP_TRZ; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
2024 inaugurated terminal area	75,000 sqm	TRZ_OPENING_2024; Official inauguration reference Supersession: newer dated facts appear in the published layout/masterplan review.
Inaugurated terminal design peak	3,500 PHP	TRZ_OPENING_2024; Published design reference; actual service performance unverified Supersession: newer dated facts appear in the published layout/masterplan review.
Annual terminal planning reference	4.40 MPPA	TRZ_OPENING_2024; PIB release 31 Dec 2023, inauguration Jan 2024; Release says more than 4.4 Mppa. Uses 4.4 as a conservative planning floor, not an exact capacity certificate. Supersession: newer dated facts appear in the published layout/masterplan review.
Airport land	702 acres	TRZ_AERA_2026; 27 February 2026, PDF page 12; published configuration, present serviceability not certified
Terminal area	75,000 sqm	TRZ_AERA_2026; 27 February 2026, PDF page 12; published configuration, present serviceability not certified
Annual terminal reference	4.45 MPPA	TRZ_AERA_2026; 27 February 2026, PDF page 13; published configuration, present serviceability not certified
Terminal peak accommodation	3,480 PHP	TRZ_AERA_2026; 27 February 2026, PDF page 13; published configuration, present serviceability not certified
Aircraft parking positions reported	19 positions	TRZ_AERA_2026; 27 February 2026, PDF page 12; published configuration, present serviceability not certified
Taxi tracks reported	11 tracks	TRZ_AERA_2026; 27 February 2026, PDF page 12; published configuration, present serviceability not certified
Arrival reclaim conveyors	5 belts	TRZ_AERA_2026; 27 February 2026, PDF page 13; published configuration, present serviceability not certified

LOD 200 ASSET APPRAISAL

TRZ | existing infrastructure evidence (continued)

Reported asset / facility	Quantity	Evidence and limitation
Check-in counters	56 counters	TRZ_AERA_2026; 27 February 2026, PDF page 13; published configuration, present serviceability not certified

Mapped approximate airport elements by layer: runways 3, taxiways 69, aprons 4, terminals 3, buildings 1. These are not verified operational asset quantities.

Source conflict: AAI published physical runway 2423 m differs from OSM measured centreline about 2273 m. LOD 200 primary runway uses the published-coordinate snapshot; NOTAM not checked.

Source conflict: Masterplan review: 4.45 MPPA (27 February 2026) replaces earlier 4.4 reference. Source vintages differ; no present commissioning certificate supplied.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

TRZ | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	-9.0	5.0	3.5	2.0
down	-12.5	3.0	2.5	1.0
up	-6.5	7.0	4.5	3.0

FY	Down movements	Base movements	Up movements
2030	2,120,000	2,340,000	2,540,000
2035	2,460,000	2,990,000	3,570,000
2040	2,790,000	3,550,000	4,450,000
2050	3,410,000	4,790,000	6,610,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 10-40 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 1-6 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 130-245 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 8. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

TIR | existing infrastructure evidence

Published physical runway 3810 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 08/26	3,810 metres	AIP_TIR; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Annual terminal planning reference	2.50 MPPA	BBI_CAPACITY_2023; Government capacity table 7 Aug 2023; Dated official capacity; current changes not verified.

Mapped approximate airport elements by layer: runways 2, boundary 1, terminals 2, aprons 3, taxiways 18. These are not verified operational asset quantities.

Source conflict: AAI published physical runway 3810 m differs from OSM measured centreline about 2282 m. LOD 200 primary runway uses the published-coordinate snapshot; NOTAM not checked.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

TIR | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	-19.0	5.0	3.5	2.0
down	-22.5	3.0	2.5	1.0
up	-16.5	7.0	4.5	3.0

FY	Down movements	Base movements	Up movements
2030	1,010,000	1,120,000	1,220,000
2035	1,170,000	1,430,000	1,720,000
2040	1,330,000	1,700,000	2,140,000
2050	1,630,000	2,300,000	3,180,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 10-40 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 1-6 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 65-125 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 7. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

RPR | existing infrastructure evidence

Published physical runway 3250 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 06/24	3,250 metres	AIP_RPR; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Dated check-in bank	15 counters	RPR_AIC_2021; 2021 tariff technical table; current configuration not established
Annual terminal planning reference	3.50 MPPA	RPR_AIC_2021; AERA order reproduced in AAI AIC 02/2021; Dated official reference; current terminal configuration not independently verified. Supersession: newer dated facts appear in the published layout/masterplan review.
Airport land	1,081 acres	RPR_AERA_2025; 30 October 2025, PDF page 12; published configuration, present serviceability not certified
Terminal area	18,500 sqm	RPR_AERA_2025; 30 October 2025, PDF page 12; published configuration, present serviceability not certified
Annual terminal reference	3.20 MPPA	RPR_AERA_2025; 30 October 2025, PDF page 12; published configuration, present serviceability not certified
Terminal peak accommodation	810 PHP	RPR_AERA_2025; 30 October 2025, PDF page 12; published configuration, present serviceability not certified
Aircraft parking positions reported	13 positions	RPR_AERA_2025; 30 October 2025, PDF page 12; published configuration, present serviceability not certified
Taxi tracks reported	6 tracks	RPR_AERA_2025; 30 October 2025, PDF page 12; published configuration, present serviceability not certified
Arrival reclaim conveyors	3 belts	RPR_AERA_2025; 30 October 2025, PDF page 13; published configuration, present serviceability not certified
Check-in counters	15 counters	RPR_AERA_2025; 30 October 2025, PDF page 13; published configuration, present serviceability not certified

Mapped approximate airport elements by layer: runways 2, boundary 1, taxiways 22, aprons 8, terminals 2, buildings 5, systems 1. These are not verified operational asset quantities.

Source conflict: AAI published physical runway 3250 m differs from OSM measured centreline about 2153 m. LOD 200 primary runway uses the published-coordinate snapshot; NOTAM not checked.

LOD 200 ASSET APPRAISAL

RPR | existing infrastructure evidence (continued)

Source conflict: Masterplan review: 3.2 MPPA (30 October 2025) replaces earlier 3.5 reference. Source vintages differ; no present commissioning certificate supplied.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

RPR | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	0.0	4.5	3.5	2.0
down	-4.0	2.5	2.5	1.0
up	2.5	6.5	4.5	3.0

FY	Down movements	Base movements	Up movements
2030	2,860,000	3,150,000	3,420,000
2035	3,230,000	3,930,000	4,690,000
2040	3,660,000	4,670,000	5,840,000
2050	4,480,000	6,300,000	8,690,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 10-40 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 1-6 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 130-245 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 4. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

LOD 200 ASSET APPRAISAL

IXU | existing infrastructure evidence

Published physical runway 2839 x 45 m. AAI physical-characteristics snapshot. Current declared distances, NOTAM and pavement condition are unresolved.

Reported asset / facility	Quantity	Evidence and limitation
Primary runway 09/27	2,839 metres	AIP_IXU; Published physical length, not TORA/LDA; coordinate accuracy and current NOTAM unverified
Annual terminal planning reference	1.50 MPPA	ANALYST; Legacy dossier assumption; current annual capacity unverified; No current official annual-capacity certificate was established. Retained 1.5 Mppa is an editable assumption.

Mapped approximate airport elements by layer: runways 2, boundary 1, taxiways 7, terminals 2, aprons 6. These are not verified operational asset quantities.

Unresolved public evidence	Action
Firm electrical capacity / redundancy	Data room / condition survey / certified system schedule
Installed HVAC duty and condition	Data room / condition survey / certified system schedule
Firm water / storage	Data room / condition survey / certified system schedule
STP duty and discharge consent	Data room / condition survey / certified system schedule
Fuel storage / hydrant asset condition	Data room / condition survey / certified system schedule
Design storm / flood protection	Data room / condition survey / certified system schedule
Current pavement strength and residual life	Data room / condition survey / certified system schedule
Current RFF category / vehicle serviceability	Data room / condition survey / certified system schedule
Current screening-system throughput / redundancy	Data room / condition survey / certified system schedule
Parcel possession / title / encumbrance	Data room / condition survey / certified system schedule

Asset/source IDs, original object geometry, provenance, quantities and candidate reservations are in the HTML register and exported JSON. Approximate counters/banks have official reported counts but assumed internal placement.

LOD 200 PROJECT APPRAISAL

IXU | demand-gated investment programme

Scenario	FY27 %	FY28-35 %	FY36-47 %	FY48+ %
base	-3.0	4.0	3.5	2.0
down	-7.0	2.0	2.5	1.0
up	-0.5	6.0	4.5	3.0

FY	Down movements	Base movements	Up movements
2030	620,000	690,000	740,000
2035	680,000	830,000	1,000,000
2040	770,000	990,000	1,240,000
2050	950,000	1,340,000	1,850,000

FY2027 combines actual April-September 2026 passengers with the prior-year October-March remainder changed by an assumed +2% base / -5% down / +7% up; resulting full-year growth is rounded to 0.5 pp. It is not YTD multiplied by two. FY2028-35 starts from 60% of FY2019-26 CAGR plus 40% of a 5% planning anchor, rounded to 0.5 pp and bounded at 1-6%, with explicit local overrides; later phases taper. These are judgement assumptions, not calibrated regression. Recovery CAGR and national RPK forecasts are not extrapolated into airport movements.

Terminal flow, baggage and accessible passenger service upgrade

Measured peak queues or service failures across two seasons; feasible staffing and equipment plan

Additional allowance Rs 2-12 crore. Generic internal space reservation; no annual capacity increase automatically credited. Cost range is an unverified planning allowance including fit-out uncertainty.

Flight-timed curb, coach and rail/bus interchange pilot

Proven operator all-in economics and arrival reliability; reconcile existing ground programme allowance

Additional allowance Rs 0-3 crore. No incremental flying credited. Existing bid ground programme already includes small bays/information costs; do not add this candidate again without a scope reconciliation.

Demand-gated modular terminal / processor capacity option

Demand reaches 80% design reference; opening before sustained 90% use after an integrated peak/stand/runway study

Additional allowance Rs 65-125 crore. First-pass sizing assumes 15,000 sqm per additional annual MPPA and Rs 70,000-130,000/sqm plus 25% enabling/uncertainty. Excludes land, financing, tax and major airfield works. These are analyst allowances, not standards or QS estimates. Existing approved projects must be reconciled first.

Authority budget scheme references for this airport: 1. See the HTML for original budget row context and PDF page references. Annual allocations are not full private project costs. No candidate is adopted by default in this financial snapshot.

INFRASTRUCTURE EVIDENCE

Outlook sources and forecast discipline

Near-term industry outlook

ICRA_AUG2026

Overall passenger growth outlook 1-3% FY2027; not an airport-specific forecast.

Manufacturer long-term outlook

AIRBUS_JAN2026

India growth outlook 8.9% p.a.; manufacturer assumptions and traffic metric/horizon differ from local airport movements.

Global long-term RPK outlook

IATA_MAR2026

Global RPK 3.1% and Asia-Pacific 3.8% CAGR 2024-2050; RPK is not airport passenger movements.

LOD reference

BIMFORUM_2025

Generic approximate model elements; no as-built survey or dimensional accuracy certification.

National outlooks do not guarantee local supply. Model airport demand before clipping, available capacity after approved openings, and served movements separately. Test airline schedules, competing airports, rail improvements and downside weather/operational limits. No network share, unique-flyer count, geographic catchment population or transport-induced traffic is certified by these scenarios.

ASSET AND MASTERPLAN REVIEW

Revision 6 | investment implications of the drawing review

This revision updates the previous 166-page appraisal with a dated public asset review and an attributed drawing atlas. It does not certify current as-built condition, complete asset ownership, design compliance or concession obligations. The original financial, traffic and catchment analysis is retained and recalculated where dated capacity references change.

Changed input	Previous reference MPPA	New dated reference MPPA	Evidence
ATQ	4.5	4.1	AAI 8 Jan2025, PDF5/23
RPR	3.5	3.2	AERA consultation 30 Oct2025, PDF12
TRZ	4.4	4.45	AERA consultation 27 Feb2026, PDF13

These references replace the registered-capacity defaults; no proposed terminal or taxiway is added automatically. The served-demand envelope still uses the greater of the dated reference and observed FY2026 throughput, a disclosed modelling convention rather than a service-capacity certificate. The 15% nominal equity hurdle and Rs0/500/1,000/2,000 crore consideration scenarios are retained.

All five default Rs500 crore group cases continue to show Hold / restructure at zero passenger fee. This is a screening conclusion from the disclosed costs, demand and financial assumptions; it is not a bid valuation certified by AAI, a market-clearing fee or a recommendation to submit a zero offer.

New official facts do not establish transfer price. Reconcile every AAI-funded project and capitalisation proposal with asset transfer, remaining works and private obligations before converting any scheme estimate into CWIP consideration.

Recomputed full annual cash flows, seeded stress paths and capacity references are exported with the revised HTML. No proposed opening is treated as observed completion.

ASSET AND MASTERPLAN REVIEW

Drawing corpus | coverage and limitations

Coverage	Located / supplied
Study airports	11
Aerodrome layout chart coverage	11 /11
Planning / layout / safeguarding map plates	84
Safeguarding map airport coverage	6 /11 in reviewed index
AAI future drawings in reviewed publications	ATQ, VNS, RPR
Historical part-plan / SIA maps	TRZ /DHM
Certified as-built sets	0 supplied or located

As-built means certified record drawings; none supplied. AIP layouts are published operational references, community footprints are approximate, proposed geometry is separate.

All located physical-layout, parking, Type A/B obstacle and safeguarding plates in the reviewed AAI chart corpus are included. Flight-procedure maps are indexed with source links; they are not airport construction masterplans.

No complete current future masterplan found for six airports. That is an evidence gap, not a claim that AAI has no plan.

AAI budget spending allocations are not project total estimates, private obligations or transferred CWIP values.

Airport-specific published layouts and masterplans follow. The atlas reproduces the complete selected source page, including printed legend, date, revision and scale where available. Raster reproduction is for appraisal; the linked original PDF is the authority for full source resolution. A map scale printed on a resized plate is not a scale for measurement in this report.

The source register retains SHA256 for each downloaded document and reproduced image, source PDF page positions, retrieval date, category and current-status caveat. This makes the reviewed corpus repeatable; it does not establish that no newer or unpublished drawing exists.

Rejected / invalid sources

TRZ_AAI_PPT_2019: Document content is Patna/Bihta; rejected despite misleading search association.

AIP_TIR: Old supplement URL returned generic HTML, replaced by October2026 AD and verified ADC PDF.

VNS_AERA_2025: AIP AIC URL returned generic HTML; not treated as the claimed AERA order.

EXISTING ASSETS AND DRAWINGS

BBI | published existing configuration

Bhubaneswar (Biju Patnaik International). Physical runway 2744 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
14	2744	2744	2744	2744
32	2744	2744	2744	2744

Use the earlier airport-specific evidence register for reported quantities and provenance. No new dated terminal systems schedule was located in this focused drawing review; do not replace missing quantities with zero or inferred equipment counts.

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 4.40 MPPA: 2022-23 capacity published 7 Aug 2023. Official dated baseline; current commissioning status not verified. T3 is under planning in AAI FY2026-27 capital budget.

Atlas plates for BBI: CCZM_BBI_1_p1, CCZM_BBI_2_p1, CHART_BBI_VEBS-ADC_p1, CHART_BBI_VEBS-PDC_p1, CHART_BBI_VEBS-AOCTA-RWY-14_p1, CHART_BBI_VEBS-AOCTA-RWY-32_p1. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

BBI | authority plan and phased study response

Officially published programme

AAI FY2026-27 budget retains T3 (4.25 MPPA) at planning/tendering stage, plus parallel taxi track/apron and other works. The older tariff record and subsequent scope descriptions require a signed baseline; no T3 opening is verified here.

Critical scope / delivery dependency

Reconcile revised terminal area, statutory approvals, ownership and AAI-funded works. A budget line for runway 22 is not the primary runway 14/32 extension geometry.

Aeronova TIA study option

Protect a terminal/apron/forecourt reserve; sequence BHS, utilities and access with peak-hour demand. Test T3 funding/handover before pricing CWIP.

Catchment interface: Bhubaneswar, Cuttack, Khordha, Puri; Jagatsinghpur, Kendrapara, Jajpur, Nayagarh. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Current complete approved future drawing not located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

BBI_BROCHURE | Historical airport brochure

BBI_AERA_ORDER_2024 | Tariff order and authority capex assessment

There are 7 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

HBX | published existing configuration

Hubballi Airport (North Karnataka Spoke). Physical runway 2600 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
08	2600	2600	2600	2600
26	2600	2600	2600	2600

Use the earlier airport-specific evidence register for reported quantities and provenance. No new dated terminal systems schedule was located in this focused drawing review; do not replace missing quantities with zero or inferred equipment counts.

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 0.50 MPPA: Legacy dossier assumption; annual capacity unverified. Annual 0.5 Mppa is a legacy assumption. Official 2017 release supports 300 peak-hour passengers, not the annual figure.

Atlas plates for HBX: CCZM_HBX_1_p1, CCZM_HBX_2_p1, CHART_HBX_VOHB-ADC_p1, CHART_HBX_VOHB-PDC_p1, CHART_HBX_VOHB-AOCTA-RWY-08_p1, CHART_HBX_VOHB-AOCTA-RWY-26_p1, CHART_HBX_VOHB-AOCTB_p1. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

HBX | authority plan and phased study response

Officially published programme

March 2025 parliamentary statement describes a new 16,000 sqm terminal, 19,600 sqm including the existing building, for 3.5 MPPA; its January 2026 target is a historical forecast. FY2026-27 budget still lists terminal and apron works as ongoing. Commissioning is not established by either source.

Critical scope / delivery dependency

Parliament suggests seven existing bays and potential fourteen; the budget refers to six additional bays. Reconcile drawing revision, net usable stands and completion; no runway extension was planned in that parliamentary answer.

Aeronova TIA study option

Integrate the funded terminal and baggage/forecourt interfaces before discretionary expansion. Use flight-linked Hubballi-Dharwad access pilots and verify stand count at handover.

Catchment interface: Hubballi, Dharwad, Gadag; Haveri, Koppal, Bagalkot, North Karnataka. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Current complete approved future drawing not located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

HBX_PARLIAMENT_2025 | Parliamentary development statement

There are 7 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

ATQ | published existing configuration

Amritsar (Sri Guru Ram Das Jee International). Physical runway 3658 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
16	3658	3658	3658	3658
34	3658	3658	3658	3658

Dated asset reference	Published quantity	Source page / date
Terminal area	40,175 sqm	ATQ_AAI_PPT_2025 PDF 23; 8 January 2025
Annual terminal reference	4.10 MPPA	ATQ_AAI_PPT_2025 PDF 5; 8 January 2025
Terminal peak accommodation	1,600 PHP	ATQ_AAI_PPT_2025 PDF 5; 8 January 2025
Aircraft parking positions reported	25 positions	ATQ_AAI_PPT_2025 PDF 5; 8 January 2025
Check-in counters	33 counters	ATQ_AAI_PPT_2025 PDF 5; 8 January 2025
Self check-in kiosks	6 kiosks	ATQ_AAI_PPT_2025 PDF 5; 8 January 2025
Passenger boarding bridges	4 bridges	ATQ_AAI_PPT_2025 PDF 4; 8 January 2025

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 4.10 MPPA: 8 January 2025 official technical reference. New dated source 4.1 MPPA replaces previous 4.5 planning reference; commissioning/configuration confirmation still required. 6.5 MPPA is an AAI proposal, not automatic model capacity.

Atlas plates for ATQ: CCZM_ATQ_1_p1, CCZM_ATQ_2_p1, CHART_ATQ_VIAR-ADC_p1, CHART_ATQ_VIAR-PDC_p1, CHART_ATQ_VIAR-AOCTA-RWY-16_p1, CHART_ATQ_VIAR-AOCTA-RWY-34_p1, CHART_ATQ_VIAR-AOCTB_p1, ATQ_AAI_PPT_2025_p24, ATQ_AAI_PPT_2025_p25, ATQ_AAI_PPT_2025_p29, ATQ_AAI_PPT_2025_p26, ATQ_AAI_PPT_2025_p27. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

ATQ | authority plan and phased study response

Officially published programme

AAI 8 Jan 2025 proposal: add 10,560 sqm to the 40,175 sqm terminal (50,735 sqm total), reconfigure for 6.5 MPPA and 2,000 PHP; Rs111.76 Cr estimate, proposed FY2027-28. Parallel taxi track estimate Rs144.71 Cr, including an IAF-structure interface, also proposed FY2027-28. These are dated proposals and estimates.

Critical scope / delivery dependency

Presentation labels the phase-I drawing approved, but the terminal/PTT completion and current approved revision remain unverified. AAI approval language does not establish PPP scope, finance responsibility or opening date.

Aeronova TIA study option

Stage passenger processing, border-control capacity, baggage and apron circulation together. Preserve PTT alignment and separate SGPC free pilgrim service from commercial access options.

Catchment interface: Amritsar, Tarn Taran, Batala; Gurdaspur, Jalandhar, Pathankot and wider Punjab. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Published AAI proposal drawings located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

ATQ_AAI_PPT_2025 | Authority development proposal

There are 7 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

DHM | published existing configuration

Kangra-Dharamshala Airport (Gaggal). Physical runway 1376 x 30 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
15	1376	1376	1376	1376
33	1376	1376	1376	1376

Use the earlier airport-specific evidence register for reported quantities and provenance. No new dated terminal systems schedule was located in this focused drawing review; do not replace missing quantities with zero or inferred equipment counts.

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 0.25 MPPA: Legacy dossier assumption; annual capacity unverified. Annual 0.25 Mppa is a legacy assumption. The 2023 SIA describes 100 simultaneous terminal passengers; not an annual capacity certificate.

Atlas plates for DHM: CHART_DHM_VIGG-ADC_p1, CHART_DHM_VIGG-PDC_p1, CHART_DHM_VIGG-AOCTA-RWY-15_p1, CHART_DHM_VIGG-AOCTA-RWY-33_p1, DHM_SIA_2023_p31, DHM_SIA_2023_p35, DHM_SIA_2023_p36, DHM_SIA_2023_p37, DHM_SIA_2023_p38, DHM_SIA_2023_p39, DHM_SIA_2023_p40. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

DHM | authority plan and phased study response

Officially published programme

Official 2023 SIA discusses alternative alignments and phased runway development; WAPCOS Aug2024 project profile describes a proposed 3,010 x45 m runway and Rs4,249 Cr project. District 2024 publication is a draft R&R plan. None establishes a completed extension.

Critical scope / delivery dependency

SIA contains inconsistent historical runway lengths and speculative aircraft/fare claims; current AIP takes precedence for physical length. Do not turn proposed Code/aircraft descriptions into approved aircraft performance or guaranteed fares.

Aeronova TIA study option

Retain the published 1,376 x30 m runway baseline. Treat the extension, river/terrain interventions, land and resettlement as a separate strategic programme with surveys and permissions.

Catchment interface: Dharamshala, Kangra, Palampur; Hamirpur, Una and selected hill districts. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: SIA alternatives located; current approved airport masterplan missing. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

DHM_SIA_2023 | Officially published social impact assessment

DHM_RR_2024 | Published resettlement plan with expansion / land maps

DHM_WAPCOS_2024 | Public-sector project overview

There are 0 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

VNS | published existing configuration

Varanasi (Lal Bahadur Shastri International). Physical runway 2746 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
09	2746	2746	2746	2514
27	2746	2746	2746	2746

Dated asset reference	Published quantity	Source page / date
Existing terminal area	24,000 sqm	VNS_AAI_PPT_2024 PDF 26; 11 November 2024
Existing annual terminal reference	3.90 MPPA	VNS_AAI_PPT_2024 PDF 26; 11 November 2024
Existing terminal peak accommodation	1,050 PHP	VNS_AAI_PPT_2024 PDF 26; 11 November 2024
Aircraft parking positions reported	11 positions	VNS_AAI_PPT_2024 PDF 26; 11 November 2024

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 3.90 MPPA: Cabinet release 19 Jun 2024. Release distinguishes existing 3.9 from planned 9.9 Mppa; completion of expansion not verified.

Atlas plates for VNS: CHART_VNS_VEBN-ADC_p1, CHART_VNS_VEBN-PDC_p1, CHART_VNS_VEBN-AOCTA-RWY-09_p1, CHART_VNS_VEBN-AOCTA-RWY-27_p1, CHART_VNS_VEBN-AOCTB_p1, VNS_AAI_PPT_2024_p38, VNS_AAI_PPT_2024_p39, VNS_AAI_PPT_2024_p40, VNS_AAI_PPT_2024_p41. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

VNS | authority plan and phased study response

Officially published programme

AAI 11 Nov2024 masterplan and floor plans show a new 75,000 sqm terminal for 6 MPPA /5,000 PHP, 1,000-car MLCP, 20 A321 parking positions and total proposed runway 4,075 x45 m. The announced airport-wide target is 9.9 MPPA including the existing 3.9 MPPA terminal; it is not 9.9 MPPA for the new building alone.

Critical scope / delivery dependency

The presentation says 1,704 m runway extension, while 4,075 minus the current AIP 2,746 m is 1,329 m. Resolve this scope/chainage inconsistency before design or cost take-off. FY2031 in the bid model remains an assumed availability date, not an AAI commitment. Access road, proposed underpass and utility/airfield packages need an integrated construction sequence.

Aeronova TIA study option

Phase enabling land and access/underpass interfaces, then terminal/utility commissioning and airside opening. Retain future-terminal, cargo/logistics, solar and utility reserves only as marked proposals or study options; activate each on evidenced peak demand and rights.

Catchment interface: Varanasi, Chandauli, Bhadohi; Jaunpur, Mirzapur, Ghazipur, Sonbhadra. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Published AAI proposal drawings located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

VNS_AAI_PPT_2024 | AAI development presentation

There are 5 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

GAY | published existing configuration

Gaya International Airport (Bodh Gaya). Physical runway 2287 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
10	2287	2287	2287	2287
28	2287	2287	2287	2210

Use the earlier airport-specific evidence register for reported quantities and provenance. No new dated terminal systems schedule was located in this focused drawing review; do not replace missing quantities with zero or inferred equipment counts.

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 0.65 MPPA: Legacy dossier assumption; annual capacity unverified. Annual 0.65 Mppa is a legacy assumption. AAI profile gives 250 arriving and 250 departing passengers; annual capacity not established.

Atlas plates for GAY: CHART_GAY_VEGY-ADC_p1, CHART_GAY_VEGY-PDC_p1, CHART_GAY_VEGY-AOCTA-RWY-10_p1, CHART_GAY_VEGY-AOCTA-RWY-28_p1, CHART_GAY_VEGY-AOCTB_p1. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

GAY | authority plan and phased study response

Officially published programme

A 2025 parliamentary answer reports completed ATC tower and apron works at Rs35.91 Cr. District Gaya published a preliminary airport land-acquisition notification in February 2026. A notification is not proof of possession, approved runway extension or available concession land.

Critical scope / delivery dependency

Undated terminal-area/profile conflicts and the unverified 0.65 MPPA model reference remain unresolved. No parcel or runway extension is drawn as an approved current masterplan.

Aeronova TIA study option

Prioritise seasonal international processing, apron circulation and flight-linked Bodh Gaya transport. Ring-fence a future land/airfield option pending acquisition and permissions.

Catchment interface: Gaya, Bodh Gaya, Jehanabad; Nawada, Aurangabad (Bihar), southern Bihar. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Current complete approved future drawing not located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

GAY_PARLIAMENT_2025 | Reported completed ATC/apron works

GAY_LAND_2026 | Preliminary land notification

There are 2 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

KBK | published existing configuration

Kushinagar International Airport. Physical runway 3200 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
11	3200	3200	3200	3200
29	3200	3200	3200	3200

Use the earlier airport-specific evidence register for reported quantities and provenance. No new dated terminal systems schedule was located in this focused drawing review; do not replace missing quantities with zero or inferred equipment counts.

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 0.30 MPPA: Government capacity table 7 Aug 2023. Dated official annual capacity. Near-zero reported traffic is not evidence that capacity is zero.

Atlas plates for KBK: CHART_KBK_VEKI-ADC_p1, CHART_KBK_VEKI-PDC_p1, CHART_KBK_VEKI-AOCTA-RWY-11_p1, CHART_KBK_VEKI-AOCTA-RWY-29_p1. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

KBK | authority plan and phased study response

Officially published programme

Published current aerodrome and parking charts establish the runway/apron layout. No comprehensive future airport masterplan was located in the reviewed official corpus; the existing authority budget scheme register remains the programme reference.

Critical scope / delivery dependency

Verify scheduled services, recurring obligations and minima before any growth case. Physical capacity and a large runway do not demonstrate demand or commercially viable route activation.

Aeronova TIA study option

Maintain mandatory operational capability and an airline-led activation plan. No discretionary terminal, cargo estate or scheduled coach expansion is justified by the retained near-zero traffic.

Catchment interface: Kushinagar, Deoria; Gorakhpur, Maharajganj and eastern UP / cross-border travel candidates. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Current complete approved future drawing not located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

There are 0 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

TRZ | published existing configuration

Tiruchirappalli International Airport (Trichy). Physical runway 2423 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
09	2423	2423	2423	2276
27	2423	2423	2423	2423

Dated asset reference	Published quantity	Source page / date
Airport land	702 acres	TRZ_AERA_2026 PDF 12; 27 February 2026
Terminal area	75,000 sqm	TRZ_AERA_2026 PDF 12; 27 February 2026
Annual terminal reference	4.45 MPPA	TRZ_AERA_2026 PDF 13; 27 February 2026
Terminal peak accommodation	3,480 PHP	TRZ_AERA_2026 PDF 13; 27 February 2026
Aircraft parking positions reported	19 positions	TRZ_AERA_2026 PDF 12; 27 February 2026
Taxi tracks reported	11 tracks	TRZ_AERA_2026 PDF 12; 27 February 2026
Arrival reclaim conveyors	5 belts	TRZ_AERA_2026 PDF 13; 27 February 2026
Check-in counters	56 counters	TRZ_AERA_2026 PDF 13; 27 February 2026

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 4.45 MPPA: 27 February 2026 official technical reference. New dated source 4.45 MPPA replaces previous 4.4 planning reference; commissioning/configuration confirmation still required. Next-stage capacity remains an analyst option.

Atlas plates for TRZ: CHART_TRZ_VOTR - ADC_p1, CHART_TRZ_VOTR-PDC_p1, CHART_TRZ_VOTR-AOCTA-RWY-09_p1, CHART_TRZ_VOTR-AOCTA-RWY-27_p1, CHART_TRZ_VOTR-AOCTB_p1, TRZ_EC_LAYOUT_2016_p17, TRZ_EC_LAYOUT_2016_p29. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

TRZ | authority plan and phased study response

Officially published programme

AERA consultation 27 Feb2026 reports the 75,000 sqm terminal, 4.45 MPPA /3,480 PHP, 19 parking positions and 11 taxi tracks. The 2016 environmental submission contains a part-masterplan drawing dated 1 Aug2011; it is historical proposal evidence, not a current as-built plan.

Critical scope / delivery dependency

The current AIP runway remains 2,423 x45 m. Do not depict a proposed longer runway as existing or apply older environmental utility assumptions to installed plant.

Aeronova TIA study option

Optimise the commissioned terminal, baggage, stands and access before adding terminal floor area. Preserve any runway-development option pending land, updated design and permissions; old-terminal reuse needs a separate rights/business case.

Catchment interface: Tiruchirappalli, Thanjavur, Pudukkottai; Karur, Perambalur, Ariyalur, Kumbakonam and delta towns. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Historical part plan located; current approved revision missing. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

TRZ_AERA_2026 | Dated current asset profile and capex consultation

TRZ_EC_LAYOUT_2016 | Historical environmental proposal and masterplan drawing

There are 8 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

TIR | published existing configuration

Tirupati International Airport (Renigunta). Physical runway 3810 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
08	3810	3810	3810	3810
26	3810	3810	3810	3810

Use the earlier airport-specific evidence register for reported quantities and provenance. No new dated terminal systems schedule was located in this focused drawing review; do not replace missing quantities with zero or inferred equipment counts.

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 2.50 MPPA: Government capacity table 7 Aug 2023. Dated official capacity; current changes not verified.

Atlas plates for TIR: CCZM_TIR_1_p1, CCZM_TIR_2_p1, CHART_TIR_VOTP-ADC_p1, CHART_TIR_VOTP-PDC_p1, CHART_TIR_VOTP-AOCTA-RWY-08_p1, CHART_TIR_VOTP-AOCTA-RWY-26_p1, CHART_TIR_VOTP-AOCTB_p1. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

TIR | authority plan and phased study response

Officially published programme

October2026 AIP and the aerodrome chart publish a 3,810 x45 m runway and current apron layout. The published 2.5 MPPA terminal reference is dated context. No complete current future masterplan drawing was located in the reviewed corpus.

Critical scope / delivery dependency

All 3,810 m declared-distance entries are published reference values, not an aircraft performance or current NOTAM clearance. Future parcels and temple-route access rights are unverified.

Aeronova TIA study option

Test terminal peaks, stand/baggage utilisation and rail/bus feeder demand before further airfield expansion. Preserve a terminal/forecourt reserve as an analyst option.

Catchment interface: Tirupati, Renigunta, Srikalahasti; Chittoor, Nellore, Madanapalle and Rayalaseema candidates. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Current complete approved future drawing not located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

There are 7 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

RPR | published existing configuration

Raipur (Swami Vivekananda Airport). Physical runway 3250 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
06	3250	3250	3250	3122
24	3250	3250	3250	3250

Dated asset reference	Published quantity	Source page / date
Airport land	1,081 acres	RPR_AERA_2025 PDF 12; 30 October 2025
Terminal area	18,500 sqm	RPR_AERA_2025 PDF 12; 30 October 2025
Annual terminal reference	3.20 MPPA	RPR_AERA_2025 PDF 12; 30 October 2025
Terminal peak accommodation	810 PHP	RPR_AERA_2025 PDF 12; 30 October 2025
Aircraft parking positions reported	13 positions	RPR_AERA_2025 PDF 12; 30 October 2025
Taxi tracks reported	6 tracks	RPR_AERA_2025 PDF 12; 30 October 2025
Arrival reclaim conveyors	3 belts	RPR_AERA_2025 PDF 13; 30 October 2025
Check-in counters	15 counters	RPR_AERA_2025 PDF 13; 30 October 2025

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 3.20 MPPA: 30 October 2025 official technical reference. New dated source 3.2 MPPA replaces previous 3.5 planning reference; commissioning/configuration confirmation still required. Next-stage capacity remains an analyst option.

Atlas plates for RPR: CCZM_RPR_1_p1, CCZM_RPR_2_p1, CHART_RPR_VERP-ADC_p1, CHART_RPR_VERP-PDC_p1, CHART_RPR_VERP-AOCTA-RWY-06_p1, CHART_RPR_VERP-AOCTA-RWY-24_p1, CHART_RPR_VERP-AOCTB_p1, RPR_AERA_2025_p65, RPR_AERA_2025_p66. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

RPR | authority plan and phased study response

Officially published programme

AERA Oct2025 consultation contains a proposed apron layout and airport masterplan. It identifies a rehabilitation constraint affecting about 1,500 m of PTT, RET24 and ancillary works; Rs34.90 Cr of the Rs115.19 Cr package was separated as hindered scope. These are consultation-stage assessments.

Critical scope / delivery dependency

Land acquisition and rehabilitation are different gates. AERA proposed Rs80.29 Cr capitalisation in FY2028-29 for executable scope; this is not a commissioning certificate, PPP payment or guaranteed cost recovery.

Aeronova TIA study option

Deliver accessible apron/GSE works with the authority programme, then gated taxiway/rapid-exit works after rehabilitation. Test terminal queues and Bhilai-Durg surface links before adding building capacity.

Catchment interface: Raipur, Bhilai, Durg; Dhamtari, Mahasamund, Baloda Bazar, Bilaspur. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Published AAI proposal drawings located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

RPR_AERA_2025 | Tariff consultation / technical asset profile

There are 4 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

EXISTING ASSETS AND DRAWINGS

IXU | published existing configuration

Aurangabad Airport (Chhatrapati Sambhajinagar). Physical runway 2839 x 45 m. October2026 AAI AD2 physical and declared-distance reference. Current NOTAM and aircraft-specific performance remain unchecked.

RWY	TORA m	TODA m	ASDA m	LDA m
09	2839	2839	2839	2839
27	2839	2839	2839	2839

Use the earlier airport-specific evidence register for reported quantities and provenance. No new dated terminal systems schedule was located in this focused drawing review; do not replace missing quantities with zero or inferred equipment counts.

As-built evidence: Not supplied / not located in reviewed public corpus. The aerodrome/parking charts describe a published operational configuration. They do not certify underground services, load capacity, pavement residual life, installed equipment condition or clear title.

Current annual planning reference 1.50 MPPA: Legacy dossier assumption; current annual capacity unverified. No current official annual-capacity certificate was established. Retained 1.5 Mppa is an editable assumption.

Atlas plates for IXU: CCZM_IXU_1_p1, CCZM_IXU_2_p1, CHART_IXU_VAAU-ADC_p1, CHART_IXU_VAAU-PDC_p1, CHART_IXU_VAAU-AOCTA-RWY-09_p1, CHART_IXU_VAAU-AOCTA-RWY-27_p1, CHART_IXU_VAAU-AOCTB_p1. The website can filter, zoom and open originals.

FUTURE MASTERPLAN AND DELIVERY

IXU | authority plan and phased study response

Officially published programme

Maharashtra June2023 gazette documents the airport expansion land-acquisition process. The current AIP and airport charts establish existing airside geometry. A comprehensive current approved future airport masterplan was not located in the reviewed corpus.

Critical scope / delivery dependency

Gazette schedules do not establish current clear title, possession or funded works. The 1.5 MPPA annual reference remains an unverified assumption.

Aeronova TIA study option

Prioritise terminal peak flow, tourism/corporate access and reliable stands/utilities. Keep a land/terminal reserve as an unplaced option until cadastral possession and latest approved drawings arrive.

Catchment interface: Chhatrapati Sambhajinagar, Jalna, Paithan; Beed, Marathwada and selected neighbouring districts. These are candidate markets rather than surveyed flyer origins. Transport capex and operator receipts must pass the separate flight-bank, load, permit and unit-economics tests.

Stage gates before a binding commitment

1. Reconcile signed existing drawings, condition, land and private/AAI responsibilities. 2. Enable land, access, utilities, safeguarding and construction continuity. 3. Open terminal, baggage, stands and operational systems together with approvals. 4. Release subsequent capacity only when peak demand, airline commitments, debt coverage and committed sponsor equity support it.

Drawing status: Current complete approved future drawing not located. Obtain latest signed masterplan/as-built set, title and possession, current obstacle/terrain surveys, plant schedules and AAI/private responsibility matrix before binding design or price.

IXU_GAZETTE_2023 | Land acquisition notification

There are 1 authority budget scheme references in the retained project register. Annual budget allocations are not total costs. All proposed layouts retain their publication status; no study geometry is represented as an AAI approval.

VARANASI INTEGRATED PROGRAMME

Varanasi | reconcile terminal capacity and runway scope

Programme quantity	Published meaning	Appraisal treatment
75,000 sqm /6 MPPA	New terminal, 5,000 PHP	AAI proposal, not 9.9 MPPA new-terminal capacity
9.9 MPPA	Airport-wide target, including existing3.9	Opening FY2031 assumed in model
4,075 x45 m runway	Proposed total on masterplan	Not current physical runway
2,746 x45 m runway	October2026 AIP physical reference	Published existing baseline
1,704 m extension	AAI presentation wording	Conflicts with4,075 minus2,746 =1,329 m; obtain chainage drawing
20 A321 positions	Proposed apron programme	Validate stand layout, MARS and operational configuration
1,000 cars	Proposed MLCP	Separate parking design and financial demand

The drawing legend includes approach road, entry/exit, existing parking/terminal/apron, proposed apron/terminal/MLCP/utility block, future terminal/parking, MSSR, solar park, fire station and isolation bay. Legend entries do not prove that each parcel or utility is commissioned or included in the private concession.

The part site plan shows a proposed underpass, skywalks, service tunnel and bus parking. Obtain the highway crossing chainage, authority consent, traffic diversion/temporary works plan, flood/drainage design, services relocation and integrated opening schedule. The source masterplan is not an engineering solution to the road crossing.

Runway length does not alone establish aircraft payload, obstacle compliance, available landing distances, aerodrome reference code or movement capacity. Do not estimate runway quantities or private capex from the inconsistent headline extension figures.

AAI11 Nov2024 presentation, PDF26 and38-41

VARANASI INTEGRATED PROGRAMME

Varanasi | phased airside, landside and utility interfaces

Stage / asset	Delivery logic	Gate / risk
Enabling works	Land, resettlement, road/underpass and utilities interfaces before irreversible terminal/airfield work	Possession, permissions, scope and diversion approved
Airside	Preserve existing operations; construct and inspect extension/apron/taxi links in a controlled sequence	Resolve chainage, obstacles, pavement, aids and NOTAM/commissioning
New terminal	Coordinate building, BHS, security, border processing, IT and bridges	Integrated systems testing and operational readiness; no capacity until opening
Access / catchment	Rail/hotel/city flight-linked feeder pilots, accessible forecourt, bus and car separation	Measured arrivals, peak queues, licensed partners and net receipts
Cargo / logistics	Protect a candidate compatible parcel; phase only after airline/shipper contracts	No invented tonnage, exclusive land right or cargo revenue
Utilities / resilience	Survey demand and condition, then phase power, HVAC, water/STP, fuel, drainage and backups	No unverified installed plant sizes or automatic green savings
Future growth	Preserve future-terminal/parking options and safeguarding corridors	Peak demand and funded equity; current and future spatial layers remain separate

The existing runway axes and community footprints in the Blender/Three.js LOD200 model are approximate study geometry. Published proposal sheets are displayed alongside them. They are not rubber-sheeted onto cadastral parcels without control points, survey coordinates and drawing revisions. OLS remains illustrative; published obstacle and CCZM records require independent applicability checks.

A sustainable business case begins with operational continuity and disciplined initial works. Revenue should follow served passengers and contracted concessions; a proposed cargo estate, underpass, solar park or transport service receives no automatic uplift merely because it appears on a concept plan.

PUBLISHED MAP ATLAS

Published atlas | use the right evidence for each decision

The following plates reproduce the planning-related maps located in the reviewed corpus: aerodrome and parking charts, published obstacle TypeA/B charts, located CCZM/grid maps, selected AAI future drawings, historical environmental study maps and SIA alternative-location imagery. Flight procedures are indexed in the website and JSON, with links to AAI originals.

The original publication retains its authority and copyright. Aeronova TIA provides analytical commentary and source attribution; inclusion is not endorsement by AAI, AERA, MoCA, MoEFCC or a state authority. Reproduced third-party base imagery retains its printed attribution.

No chart or historical safeguarding map should be used as a live navigation, construction or height-clearance instruction. Obtain current approved masterplans/as-built sets, current eAIP/NOTAM and NOCAS determinations for an operational or design decision. The study OLS surface is not a substitute for obstacle assessment.

Airport	Plates	Future drawing status
BBI	6	Current complete approved future drawing not located
HBX	7	Current complete approved future drawing not located
ATQ	12	Published AAI proposal drawings located
DHM	11	SIA alternatives located; current approved airport masterplan missing
VNS	9	Published AAI proposal drawings located
GAY	5	Current complete approved future drawing not located
KBK	4	Current complete approved future drawing not located
TRZ	7	Historical part plan located; current approved revision missing
TIR	7	Current complete approved future drawing not located
RPR	9	Published AAI proposal drawings located
IXU	7	Current complete approved future drawing not located

Full register and SHA256 evidence: published_map_register.json. Source dates are printed on plates; retrieval on3 Nov2026 is not the drawing revision date.

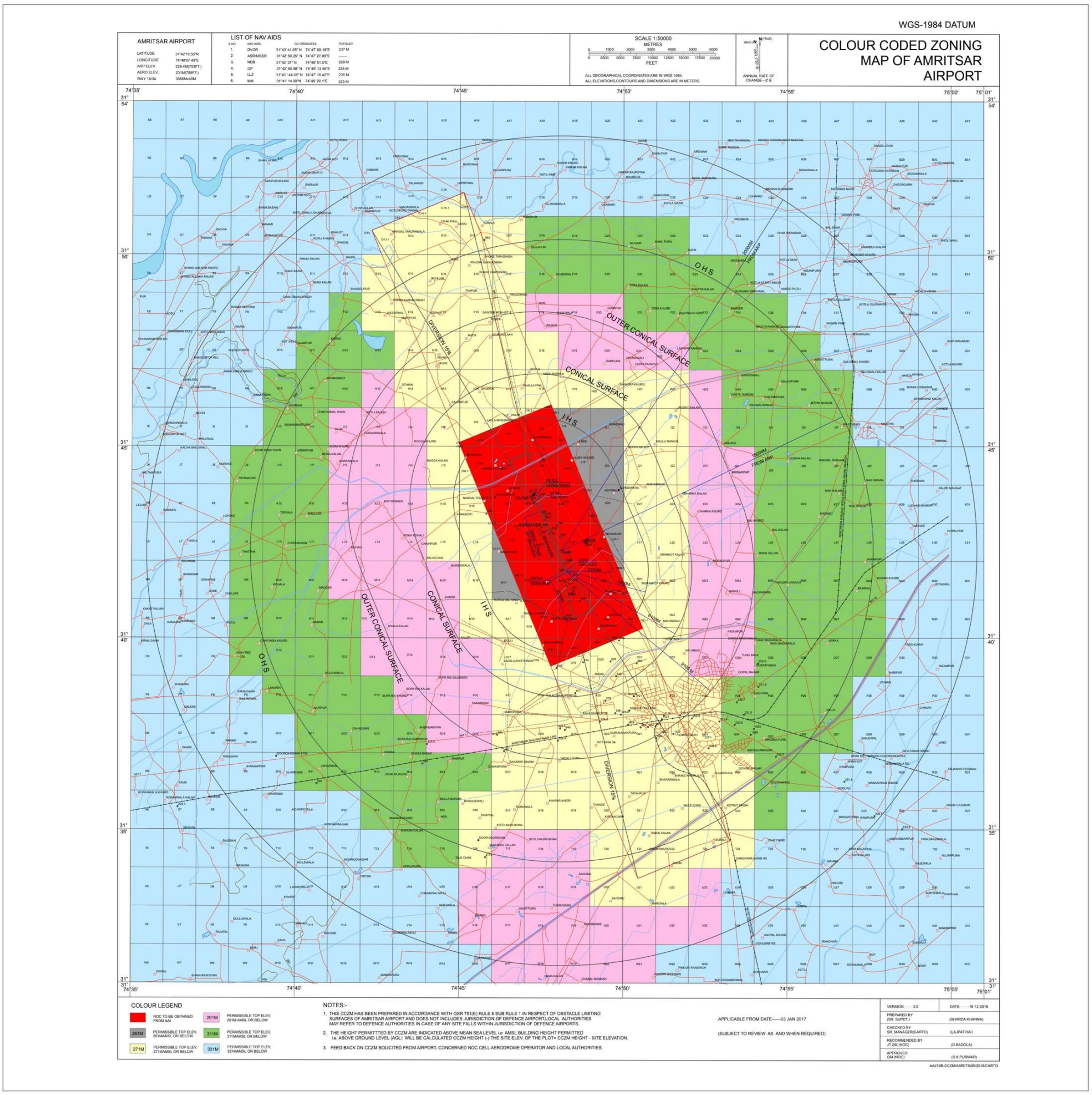
PUBLISHED MAP ATLAS

ATQ | 1

Safeguarding | AAI NOCAS | Original PDF page 1

Historical safeguarding publication; verify current NOCAS applicability and validity Retrieved 3 November 2026; chart date/revision as printed

Open original PDF, page 1



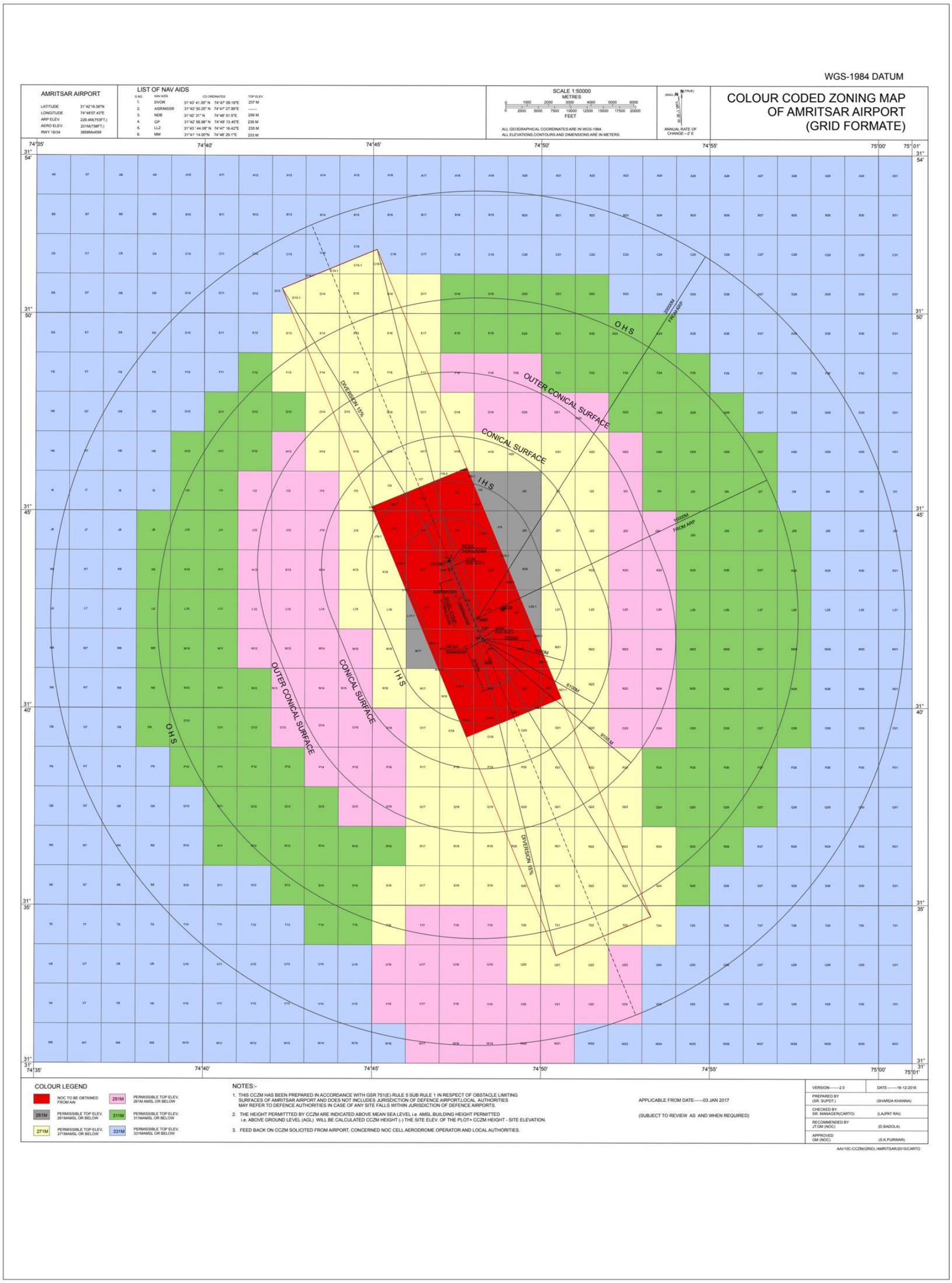
PUBLISHED MAP ATLAS

ATQ | 2

Safeguarding | AAI NOCAS | Original PDF page 1

Historical safeguarding publication; verify current NOCAS applicability and validity Retrieved 3 November 2026; chart date/revision as printed

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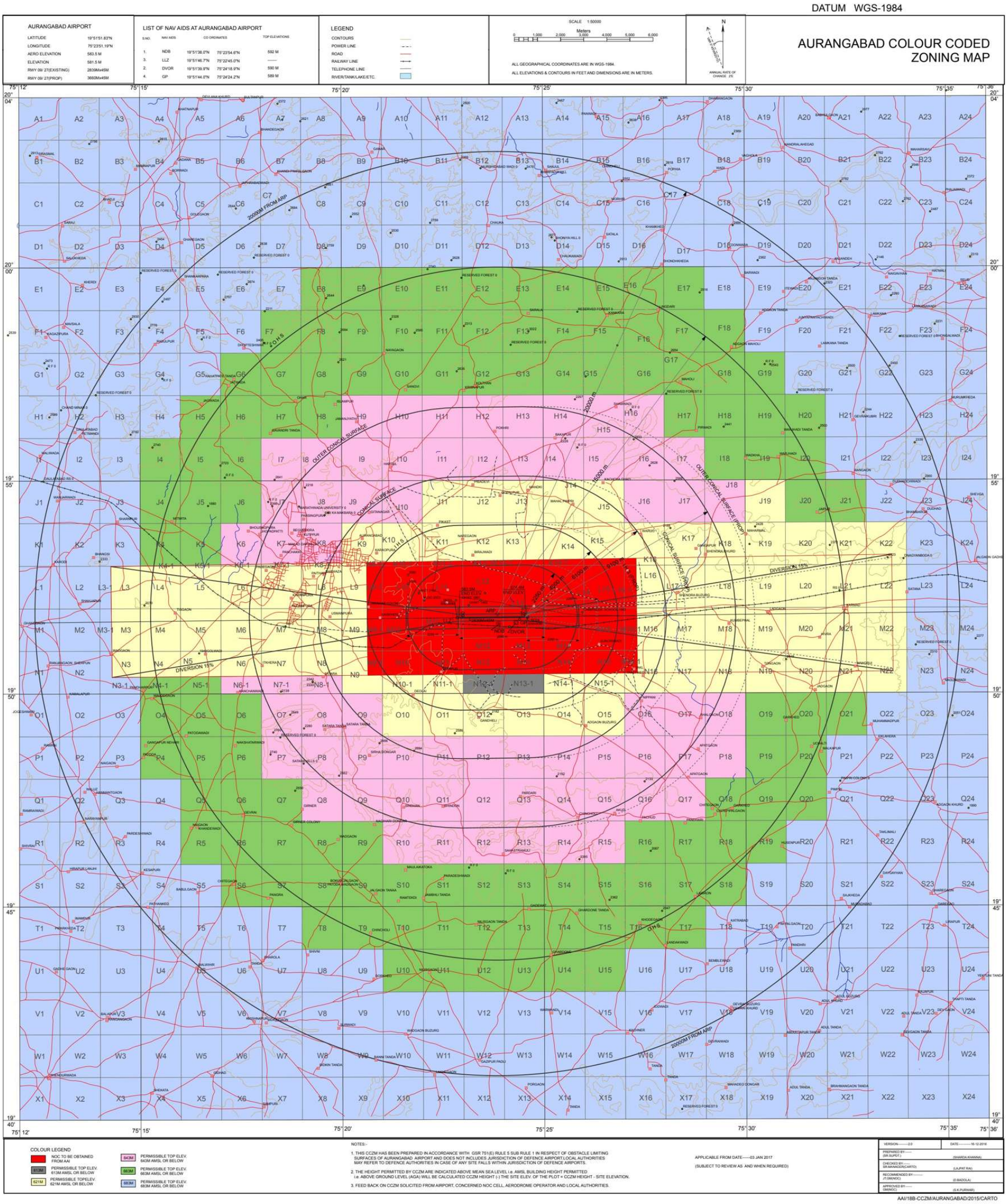
PUBLISHED MAP ATLAS

IXU | 1

Safeguarding | AAI NOCAS | Original PDF page 1

Historical safeguarding publication; verify current NOCAS applicability and validity Retrieved 3 November 2026; chart date/revision as printed

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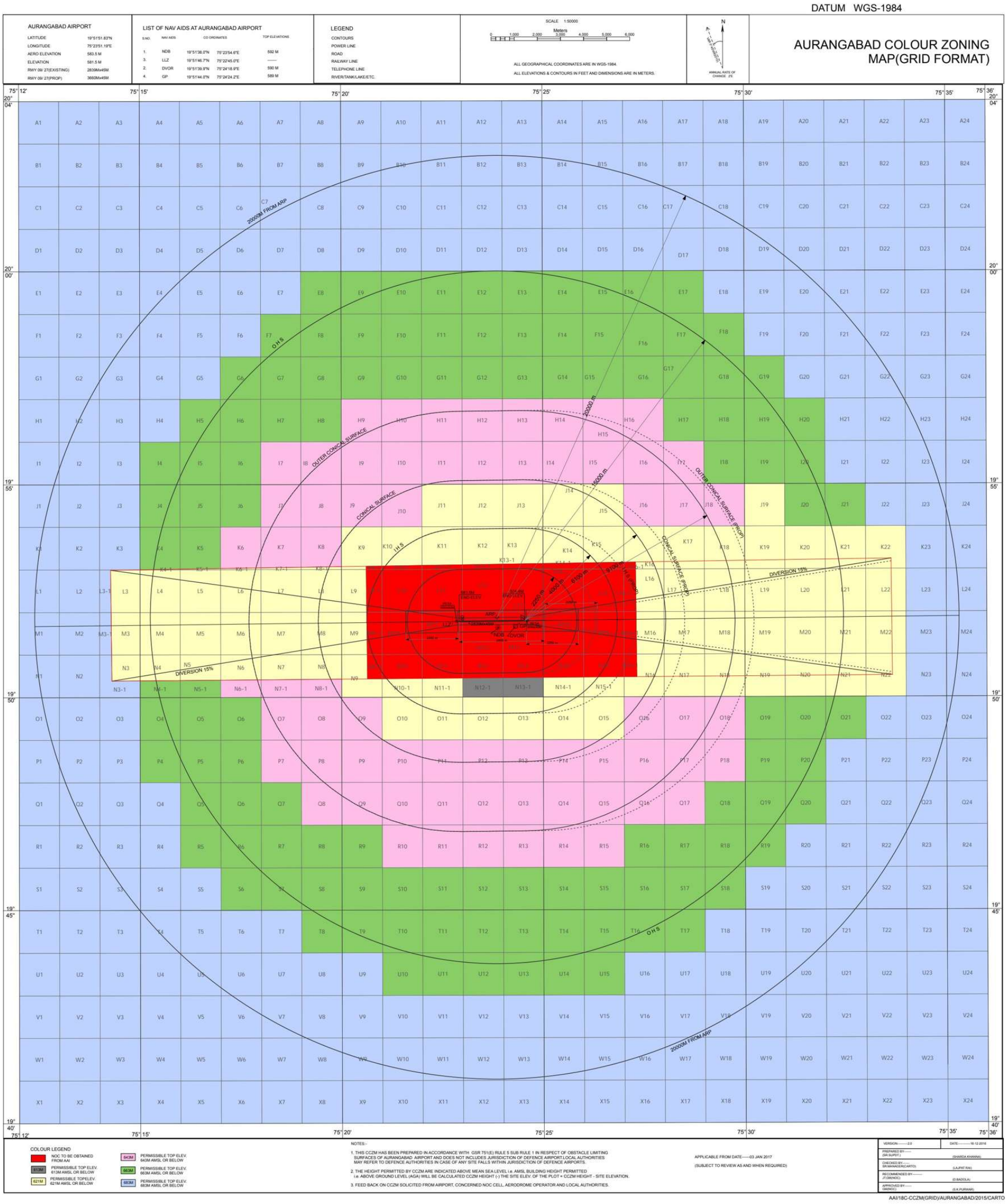
PUBLISHED MAP ATLAS

IXU | 2

Safeguarding | AAI NOCAS | Original PDF page 1

Historical safeguarding publication; verify current NOCAS applicability and validity Retrieved 3 November 2026; chart date/revision as printed

Open original PDF, page 1



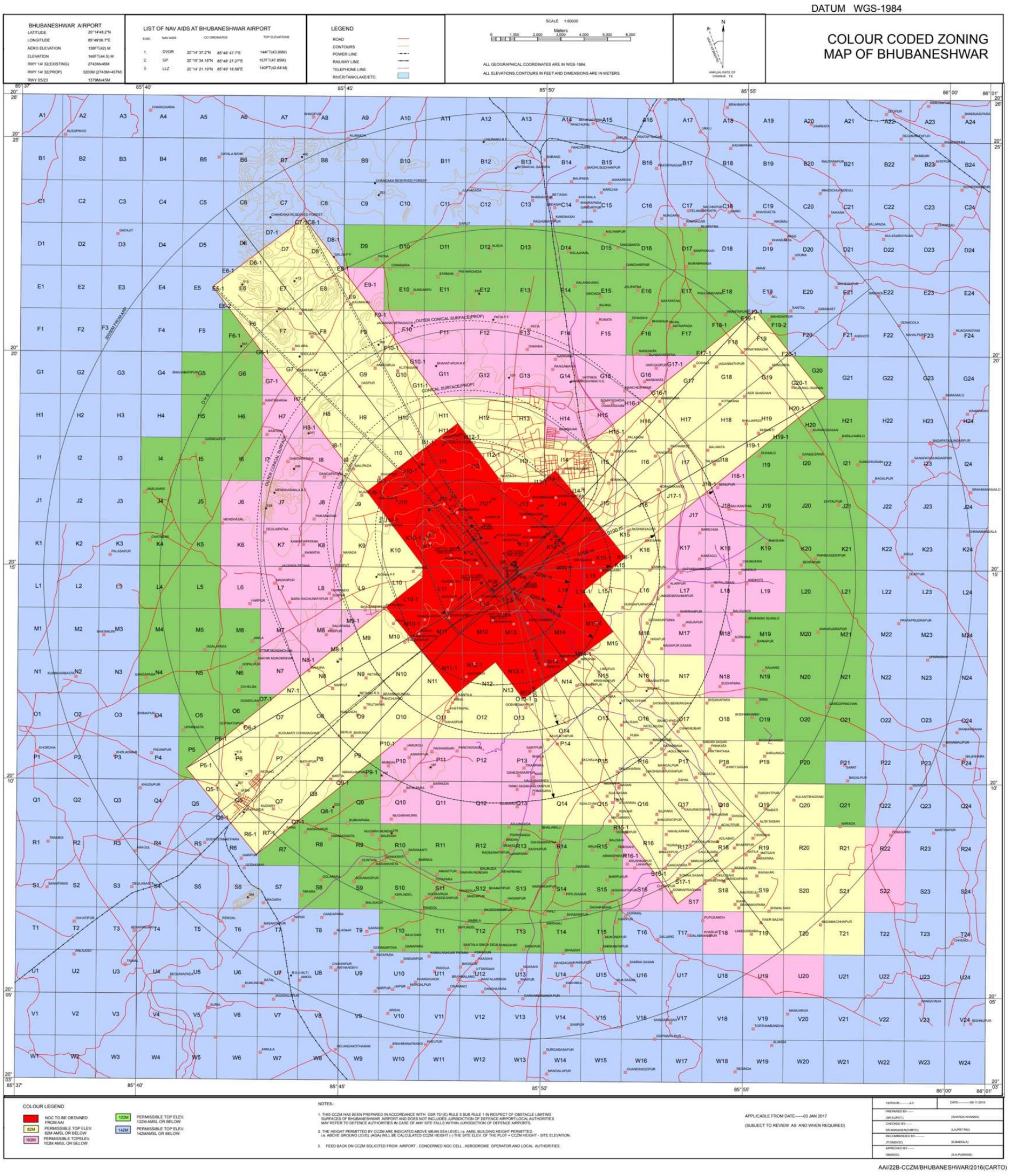
PUBLISHED MAP ATLAS

BBI | 1

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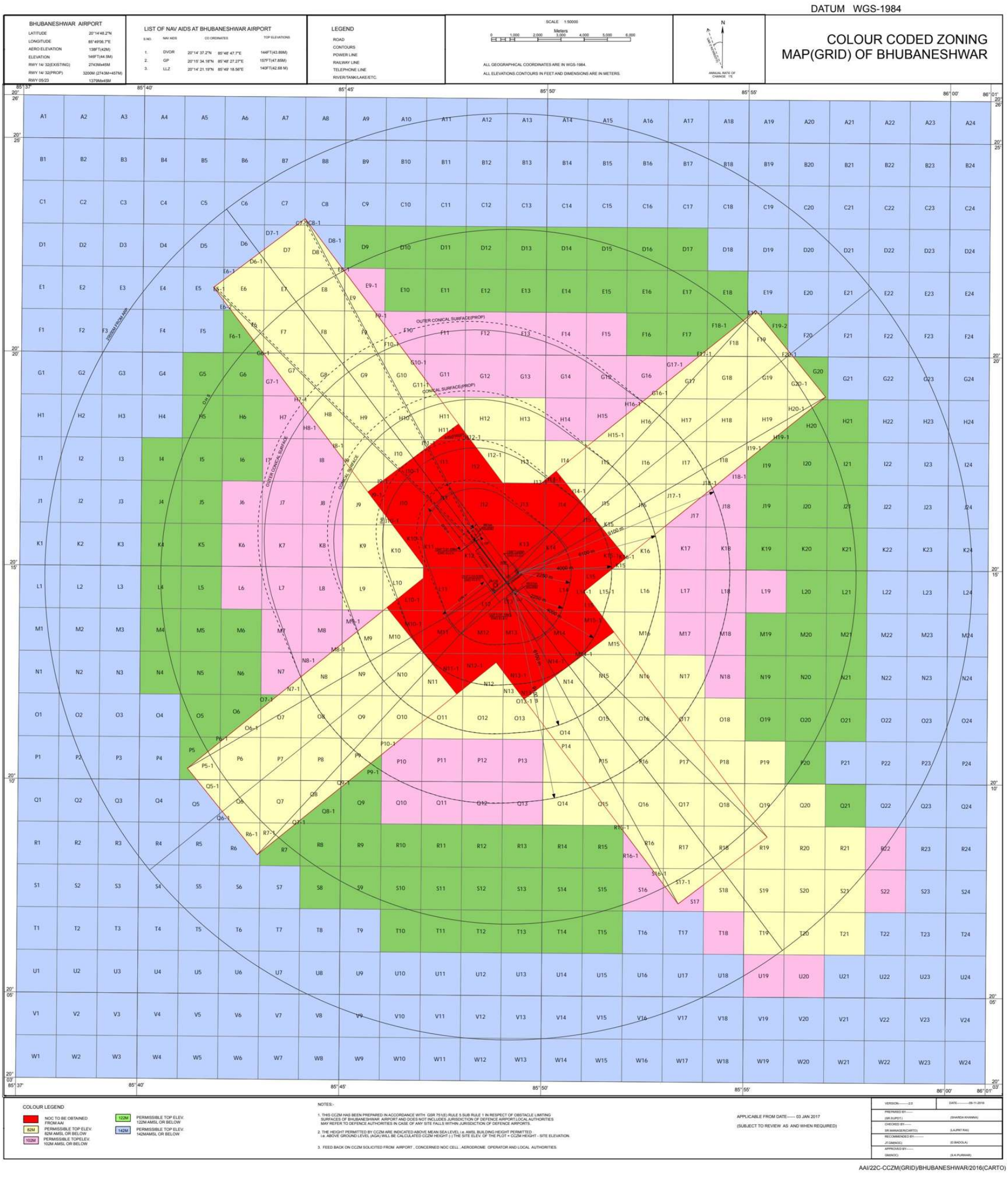
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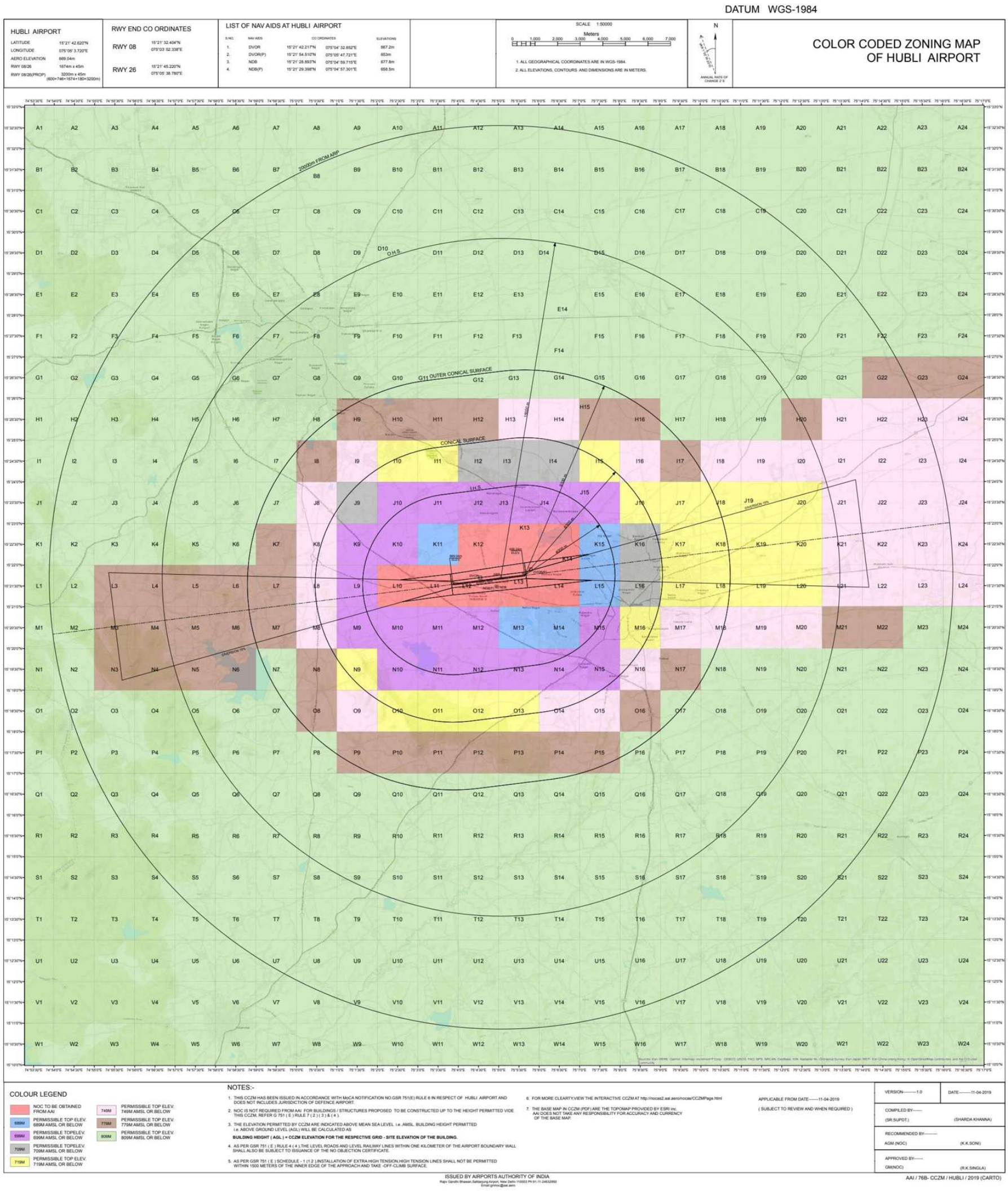
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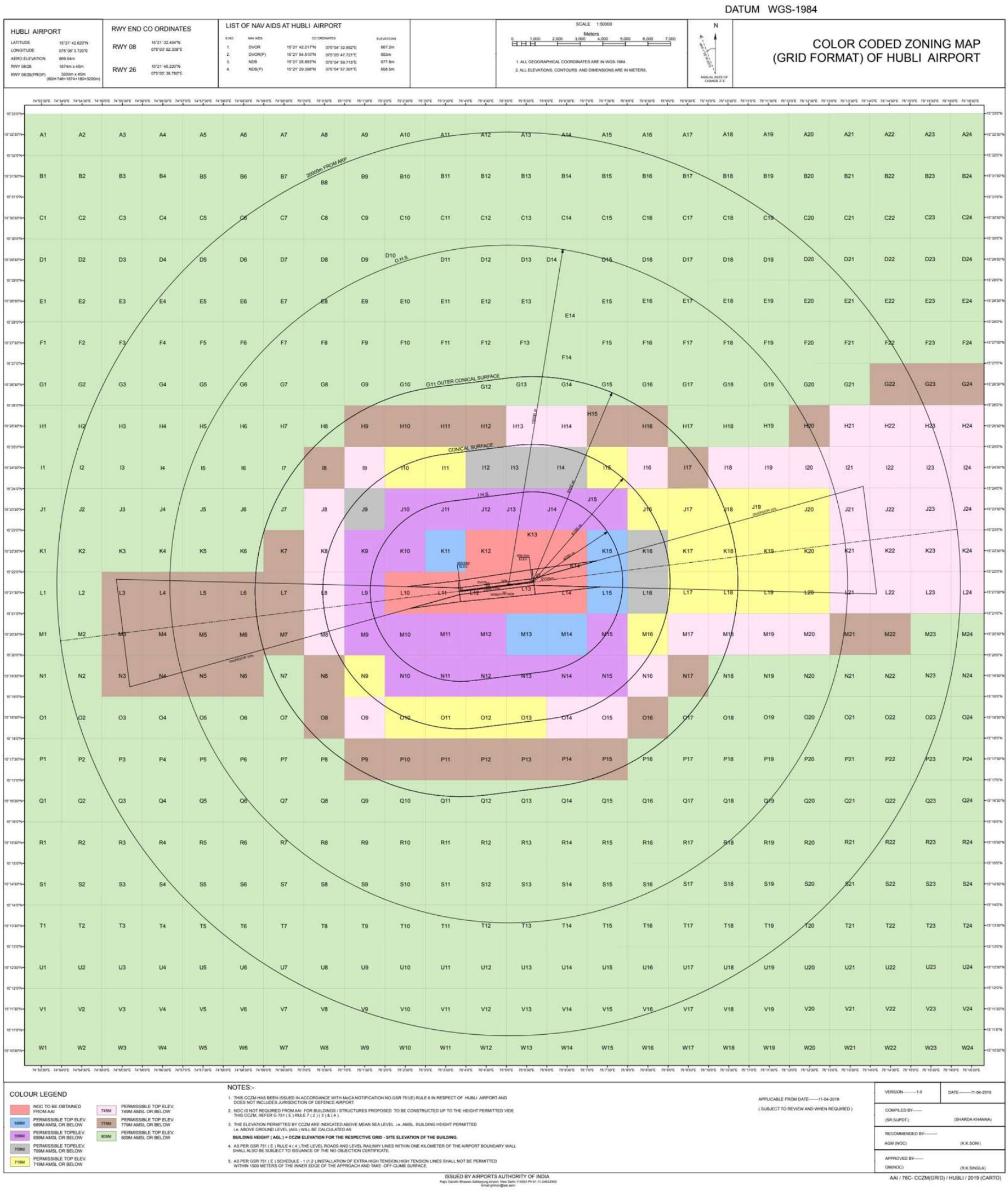
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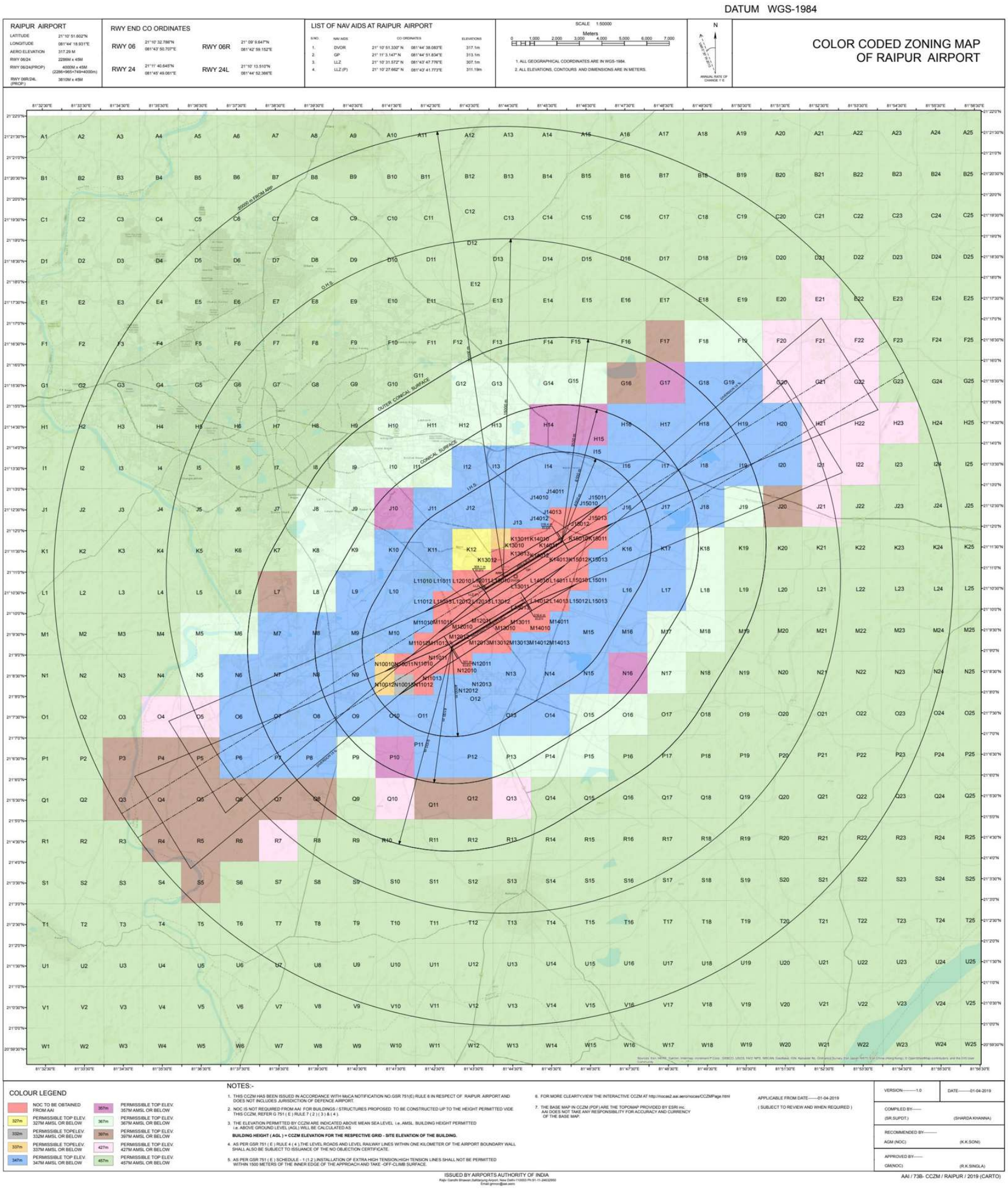
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RPR | 2

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DATUM WGS-1984

RAIPUR AIRPORT

LATITUDE	21°10' 51.602"N
LONGITUDE	081°44' 18.931"E
AERO ELEVATION	317.29 M
RWY 06/24	2286M x 45M
RWY 06/24(PROP)	4000M x 45M (2286+965+749=4000m)
RWY 06R/24L (PROP)	3810M x 45M

RWY END CO ORDINATES

RWY 06	21°10' 32.786"N 081°43' 50.707"E	RWY 06R	21° 09' 9.647"N 081°42' 59.152"E
RWY 24	21°11' 40.645"N 081°45' 49.061"E	RWY 24L	21°10' 13.510"N 081°44' 52.366"E

LIST OF NAV AIDS AT RAIPUR AIRPORT

S.NO.	NAV AIDS	CO ORDINATES		ELEVATIONS
1.	DVOR	21° 10' 51.330" N	081°44' 38.083"E	317.1m
2.	GP	21° 11' 3.147" N	081°44' 51.834"E	313.1m
3.	LLZ	21° 10' 31.572" N	081°43' 47.776"E	307.1m
4.	LLZ (P)	21° 10' 27.662" N	081°43' 41.773"E	311.19m

SCALE 1:50000
Meters
0 1,000 2,000 3,000 4,000 5,000 6,000 7,000

1. ALL GEOGRAPHICAL COORDINATES ARE IN WGS-1984.
2. ALL ELEVATIONS, CONTOURS AND DIMENSIONS ARE IN METERS.

N

ANNUAL RATE OF CHANGE 1° E

COLOR CODED ZONING MAP
(GRID FORMAT) OF RAIPUR AIRPORT

OUTER CONICAL SURFACE
CONICAL SURFACE
I.H.S.
O.H.S.
25000 m FROM ARP
10000 m
4000 m
2500 m
1500 m
GREENFIELD T.T.N.

COLOUR LEGEND

	NOC TO BE OBTAINED FROM AAI	357m	PERMISSIBLE TOP ELEV. 357M AMSL OR BELOW
327m	PERMISSIBLE TOP ELEV. 327M AMSL OR BELOW	367m	PERMISSIBLE TOP ELEV. 367M AMSL OR BELOW
332m	PERMISSIBLE TOPELEV. 332M AMSL OR BELOW	397m	PERMISSIBLE TOP ELEV. 397M AMSL OR BELOW
337m	PERMISSIBLE TOPELEV. 337M AMSL OR BELOW	427m	PERMISSIBLE TOP ELEV. 427M AMSL OR BELOW
347m	PERMISSIBLE TOP ELEV. 347M AMSL OR BELOW	457m	PERMISSIBLE TOP ELEV. 457M AMSL OR BELOW

NOTES:-

1. THIS CCZM HAS BEEN ISSUED IN ACCORDANCE WITH MoCA NOTIFICATION NO.GSR 751(E) RULE 6 IN RESPECT OF RAIPUR AIRPORT AND DOES NOT INCLUDES JURISDICTION OF DEFENCE AIRPORT.
2. NOC IS NOT REQUIRED FROM AAI FOR BUILDINGS / STRUCTURES PROPOSED TO BE CONSTRUCTED UP TO THE HEIGHT PERMITTED VIDE THIS CCZM, REFER G 751 (E) RULE 7 (2) (3) & (4).
3. THE ELEVATION PERMITTED BY CCZM ARE INDICATED ABOVE MEAN SEA LEVEL i.e.,AMSL. BUILDING HEIGHT PERMITTED i.e. ABOVE GROUND LEVEL (AGL) WILL BE CALCULATED AS
   BUILDING HEIGHT (AGL) = CCZM ELEVATION FOR THE RESPECTIVE GRID - SITE ELEVATION OF THE BUILDING.
4. AS PER GSR 751 (E) RULE 4 (4),THE LEVEL ROADS AND LEVEL RAILWAY LINES WITHIN ONE KILOMETER OF THE AIRPORT BOUNDARY WALL SHALL ALSO BE SUBJECT TO ISSUANCE OF THE NO OBJECTION CERTIFICATE.
5. AS PER GSR 751 (E) SCHEDULE - 1 (1.2),INSTALLATION OF EXTRA HIGH TENSION,HIGH TENSION LINES SHALL NOT BE PERMITTED WITHIN 1500 METERS OF THE INNER EDGE OF THE APPROACH AND TAKE -OFF-CLIMB SURFACE.

APPLICABLE FROM DATE------01-04-2019
(SUBJECT TO REVIEW AND WHEN REQUIRED)

VERSION---------1.0	DATE--------01-04-2019
COMPILED BY------ (SR.SUPDT.)	(SHARDA KHANNA)
RECOMMENDED BY--------- AGM (NOC)	(K.K.SONI)
APPROVED BY------ GM(NOC)	(R.K.SINGLA)

ISSUED BY AIRPORTS AUTHORITY OF INDIA
Rajiv Gandhi Bhawan,Safdarjung Airport, New Delhi-110003 Ph:91-11-24632950
Email:gmnoc@aai.aero

AAI / 73C- CCZM(GRID) / RAIPUR / 2019 (CARTO)

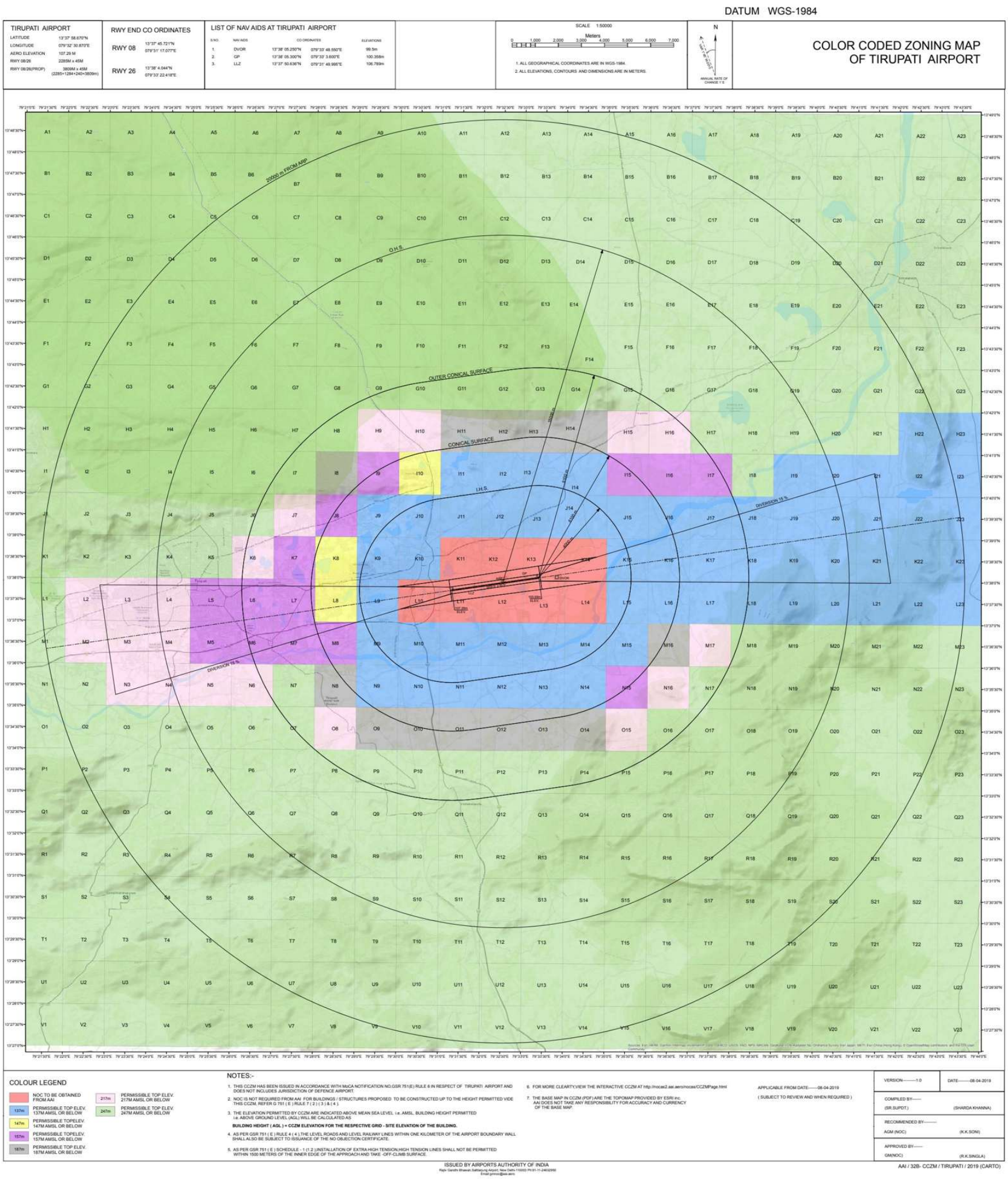
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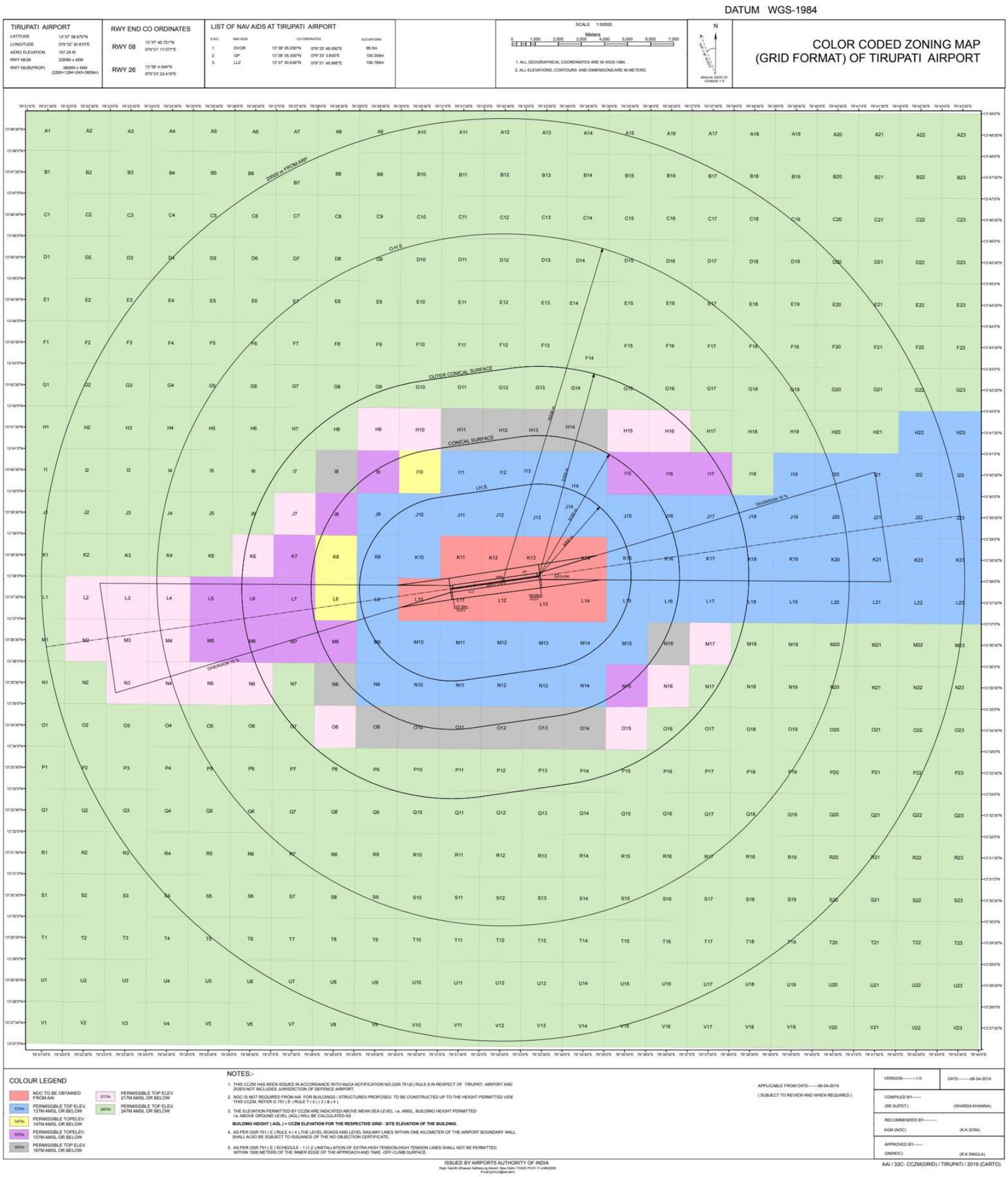
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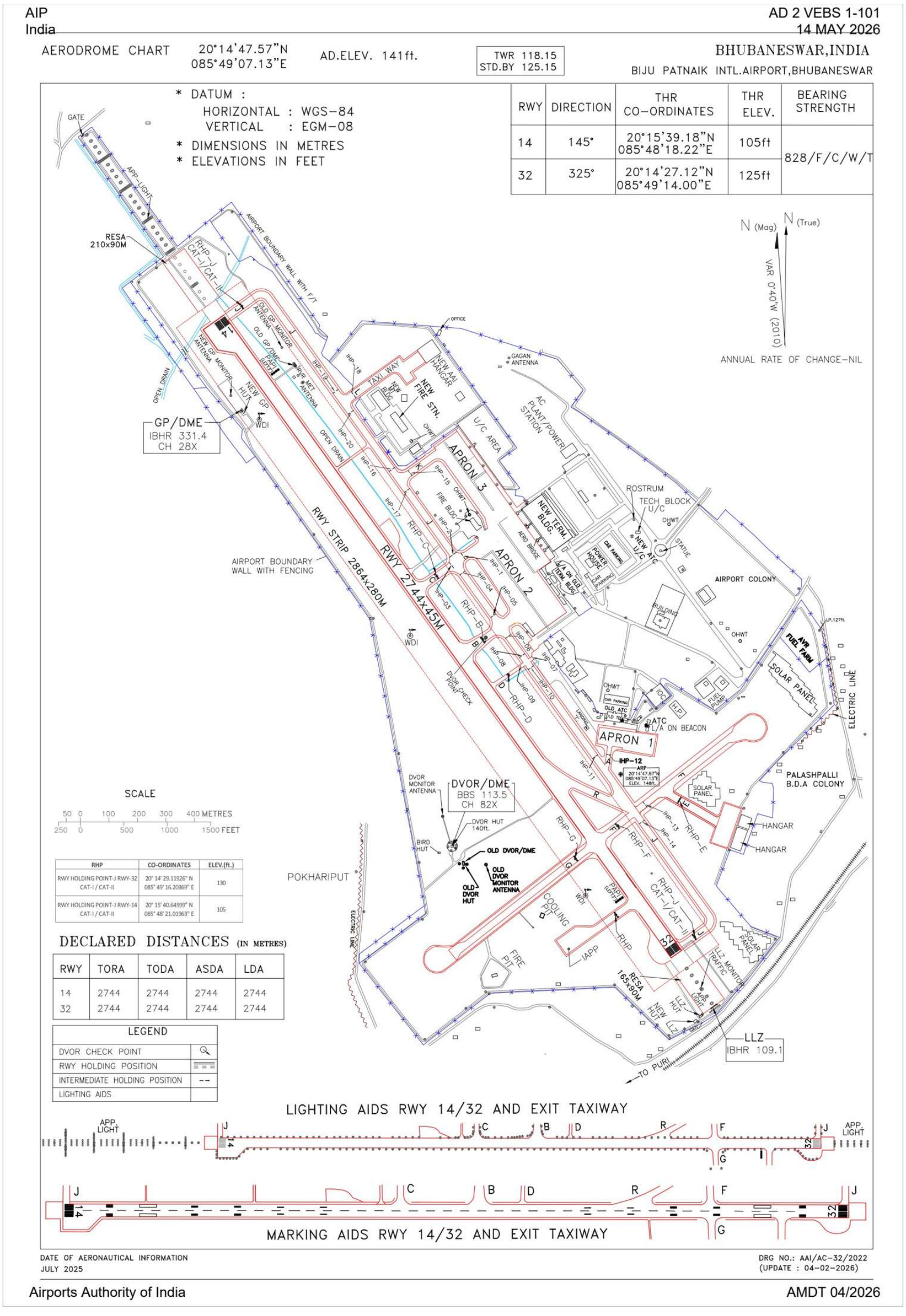
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BBI | VEBS-ADC

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India

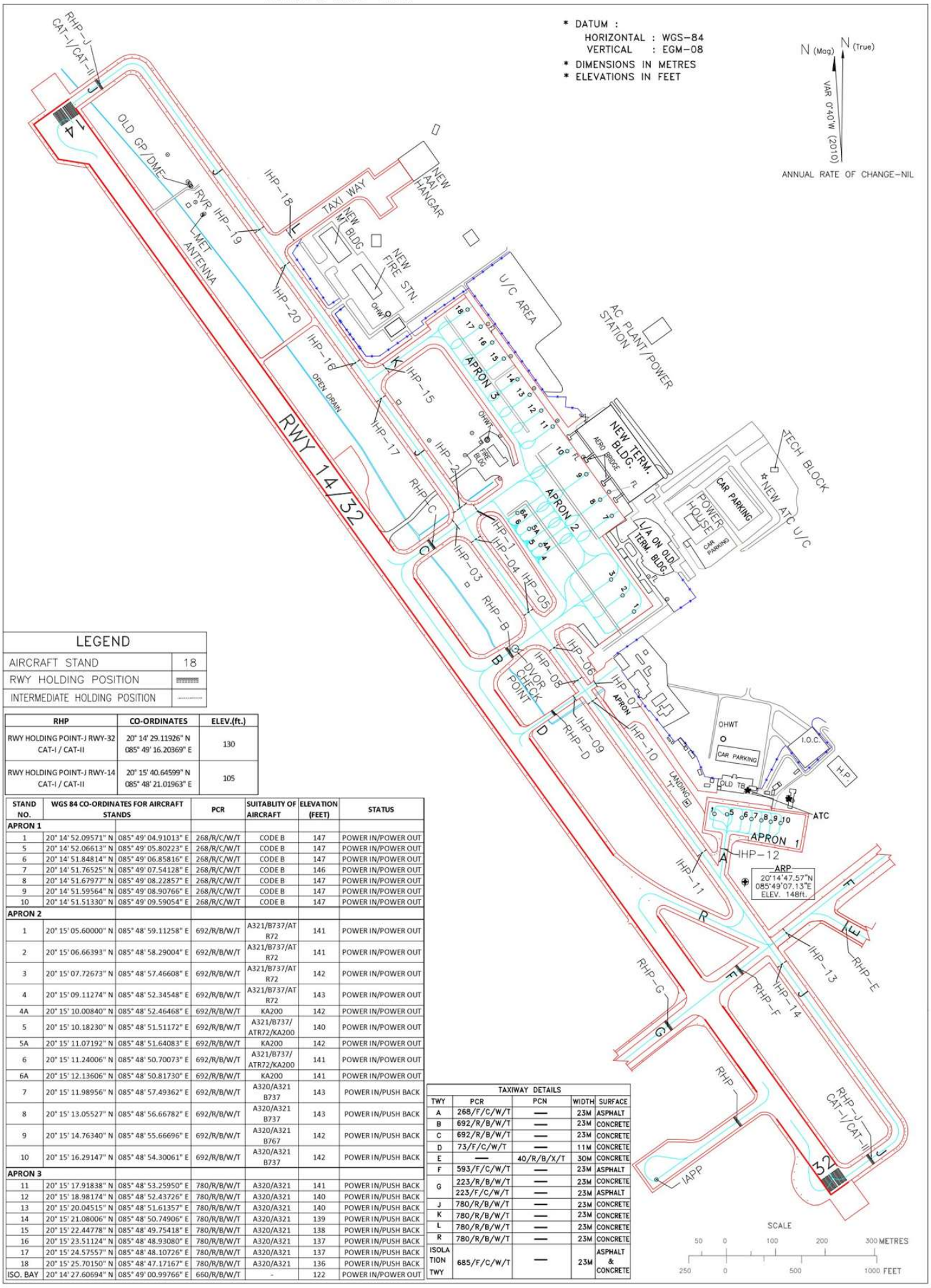
AD 2 VEBS 1-301
14 MAY 2026

AIRCRAFT PARKING/
DOCKING CHART

APRON 1 ELEV. 147ft.
APRON 2 ELEV. 143ft.
APRON 3 ELEV. 141ft.

TWR 118.15
STD.BY 125.15

BHUBANESWAR,INDIA
BIJU PATNAIK INTL.AIRPORT,BHUBANESWAR



LEGEND	
AIRCRAFT STAND	18
RWY HOLDING POSITION	
INTERMEDIATE HOLDING POSITION	

RHP	CO-ORDINATES	ELEV.(ft.)
RWY HOLDING POINT-J RWY-32 CAT-I / CAT-II	20° 14' 29.11926" N 085° 49' 16.20369" E	130
RWY HOLDING POINT-J RWY-14 CAT-I / CAT-II	20° 15' 40.64599" N 085° 48' 21.01963" E	105

STAND NO.	WGS 84 CO-ORDINATES FOR AIRCRAFT STANDS		PCR	SUITABLITY OF AIRCRAFT	ELEVATION (FEET)	STATUS
APRON 1						
1	20° 14' 52.09571" N	085° 49' 04.91013" E	268/R/C/W/T	CODE B	147	POWER IN/POWER OUT
5	20° 14' 52.06613" N	085° 49' 05.80223" E	268/R/C/W/T	CODE B	147	POWER IN/POWER OUT
6	20° 14' 51.84814" N	085° 49' 06.85816" E	268/R/C/W/T	CODE B	147	POWER IN/POWER OUT
7	20° 14' 51.76525" N	085° 49' 07.54128" E	268/R/C/W/T	CODE B	146	POWER IN/POWER OUT
8	20° 14' 51.67977" N	085° 49' 08.22857" E	268/R/C/W/T	CODE B	147	POWER IN/POWER OUT
9	20° 14' 51.59564" N	085° 49' 08.90766" E	268/R/C/W/T	CODE B	147	POWER IN/POWER OUT
10	20° 14' 51.51330" N	085° 49' 09.59054" E	268/R/C/W/T	CODE B	147	POWER IN/POWER OUT
APRON 2						
1	20° 15' 05.60000" N	085° 48' 59.11258" E	692/R/B/W/T	A321/B737/AT R72	141	POWER IN/POWER OUT
2	20° 15' 06.66393" N	085° 48' 58.29004" E	692/R/B/W/T	A321/B737/AT R72	141	POWER IN/POWER OUT
3	20° 15' 07.72673" N	085° 48' 57.46608" E	692/R/B/W/T	A321/B737/AT R72	142	POWER IN/POWER OUT
4	20° 15' 09.11274" N	085° 48' 52.34548" E	692/R/B/W/T	A321/B737/AT R72	143	POWER IN/POWER OUT
4A	20° 15' 10.00840" N	085° 48' 52.46468" E	692/R/B/W/T	KA200	142	POWER IN/POWER OUT
5	20° 15' 10.18230" N	085° 48' 51.51172" E	692/R/B/W/T	A321/B737/ ATR72/KA200	140	POWER IN/POWER OUT
5A	20° 15' 11.07192" N	085° 48' 51.64083" E	692/R/B/W/T	KA200	142	POWER IN/POWER OUT
6	20° 15' 11.24006" N	085° 48' 50.70073" E	692/R/B/W/T	A321/B737/ ATR72/KA200	141	POWER IN/POWER OUT
6A	20° 15' 12.13606" N	085° 48' 50.81730" E	692/R/B/W/T	KA200	141	POWER IN/POWER OUT
7	20° 15' 11.98956" N	085° 48' 57.49362" E	692/R/B/W/T	A320/A321 B737	143	POWER IN/PUSH BACK
8	20° 15' 13.05527" N	085° 48' 56.66782" E	692/R/B/W/T	A320/A321 B737	143	POWER IN/PUSH BACK
9	20° 15' 14.76340" N	085° 48' 55.66696" E	692/R/B/W/T	A320/A321 B767	142	POWER IN/PUSH BACK
10	20° 15' 16.29147" N	085° 48' 54.30061" E	692/R/B/W/T	A320/A321 B737	142	POWER IN/PUSH BACK
APRON 3						
11	20° 15' 17.91838" N	085° 48' 53.25950" E	780/R/B/W/T	A320/A321	141	POWER IN/PUSH BACK
12	20° 15' 18.98174" N	085° 48' 52.43726" E	780/R/B/W/T	A320/A321	140	POWER IN/PUSH BACK
13	20° 15' 20.04515" N	085° 48' 51.61357" E	780/R/B/W/T	A320/A321	140	POWER IN/PUSH BACK
14	20° 15' 21.08006" N	085° 48' 50.74906" E	780/R/B/W/T	A320/A321	139	POWER IN/PUSH BACK
15	20° 15' 22.44778" N	085° 48' 49.75418" E	780/R/B/W/T	A320/A321	138	POWER IN/PUSH BACK
16	20° 15' 23.51124" N	085° 48' 48.93080" E	780/R/B/W/T	A320/A321	137	POWER IN/PUSH BACK
17	20° 15' 24.57557" N	085° 48' 48.10726" E	780/R/B/W/T	A320/A321	137	POWER IN/PUSH BACK
18	20° 15' 25.70150" N	085° 48' 47.17167" E	780/R/B/W/T	A320/A321	136	POWER IN/PUSH BACK
ISO. BAY	20° 14' 27.60694" N	085° 49' 00.99766" E	660/R/B/W/T	-	122	POWER IN/POWER OUT

TAXIWAY DETAILS				
TWY	PCR	PCN	WIDTH	SURFACE
A	268/F/C/W/T	—	23M	ASPHALT
B	692/R/B/W/T	—	23M	CONCRETE
C	692/R/B/W/T	—	23M	CONCRETE
D	73/F/C/W/T	—	11M	CONCRETE
E	—	40/R/B/X/T	30M	CONCRETE
F	593/F/C/W/T	—	23M	ASPHALT
G	223/R/B/W/T	—	23M	CONCRETE
	223/F/C/W/T	—	23M	ASPHALT
J	780/R/B/W/T	—	23M	CONCRETE
K	780/R/B/W/T	—	23M	CONCRETE
L	780/R/B/W/T	—	23M	CONCRETE
R	780/R/B/W/T	—	23M	CONCRETE
ISOLATION TWY	685/F/C/W/T	—	23M	ASPHALT & CONCRETE

DATE OF AERONAUTICAL INFORMATION
JUNE 2025

DRG NO.: AAI/PDC-33/2022
(UPDATE AS ON 04.02.2026)

Airports Authority of India

AMDT 04/2026

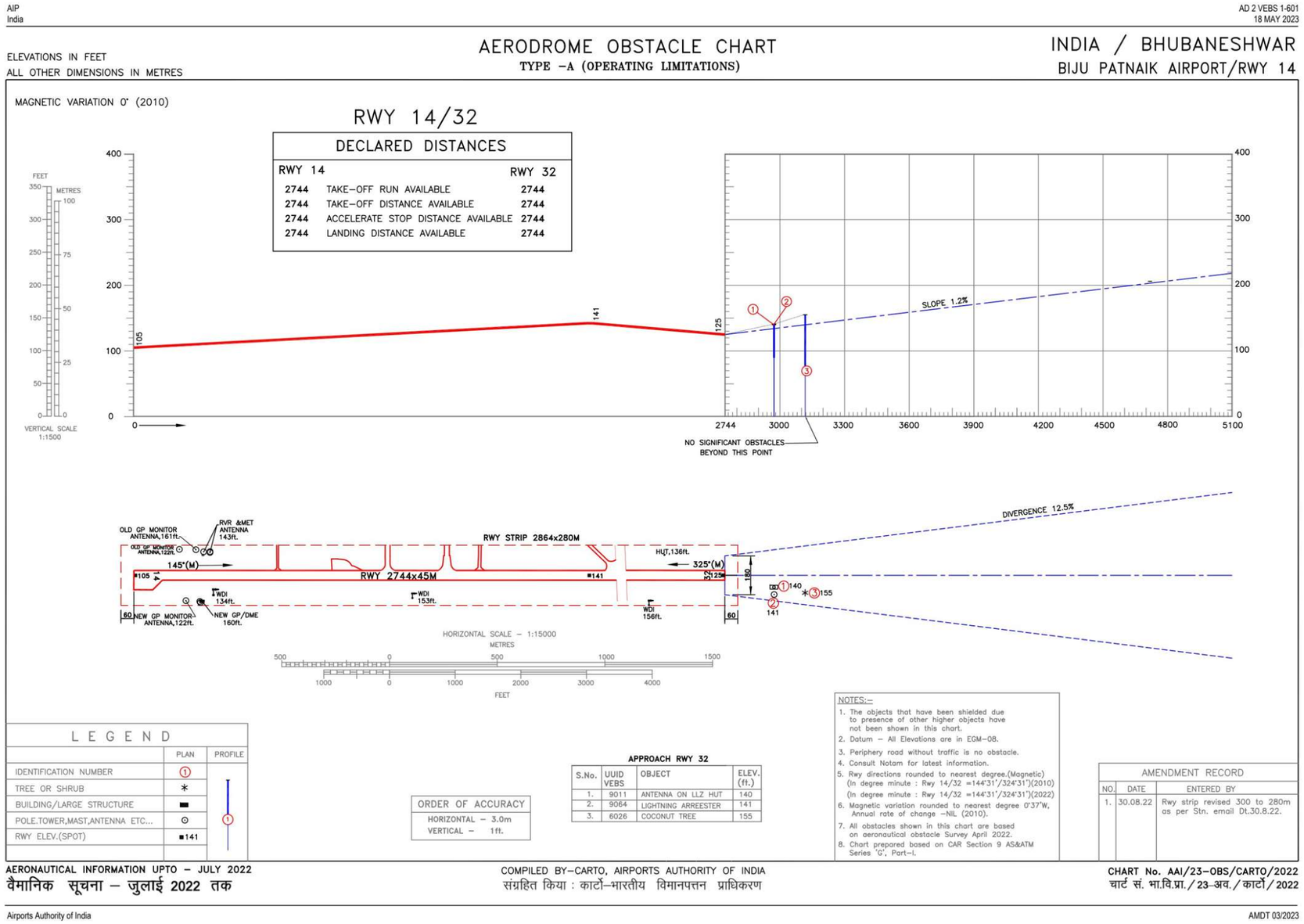
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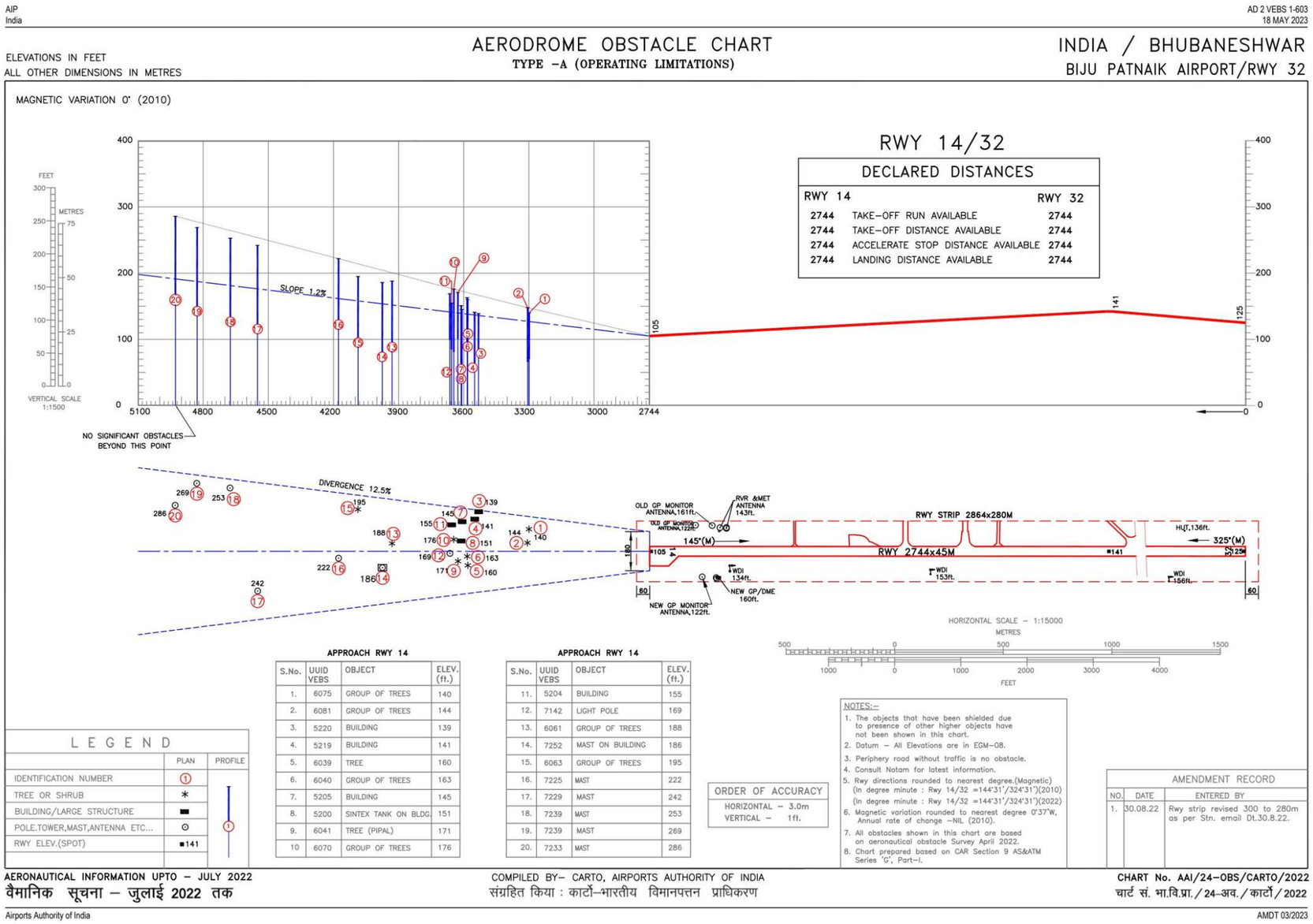
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S.No.	UUID VEBS	OBJECT	ELEV. (ft.)
1.	6075	GROUP OF TREES	140
2.	6081	GROUP OF TREES	144
3.	5220	BUILDING	139
4.	5219	BUILDING	141
5.	6039	TREE	160
6.	6040	GROUP OF TREES	163
7.	5205	BUILDING	145
8.	5200	SINTEX TANK ON BLDG.	151
9.	6041	TREE (PIPAL)	171
10	6070	GROUP OF TREES	176

S.No.	UUID VEBS	OBJECT	ELEV. (ft.)
11.	5204	BUILDING	155
12.	7142	LIGHT POLE	169
13.	6061	GROUP OF TREES	188
14.	7252	MAST ON BUILDING	186
15.	6063	GROUP OF TREES	195
16.	7225	MAST	222
17.	7229	MAST	242
18.	7239	MAST	253
19.	7239	MAST	269
20.	7233	MAST	286

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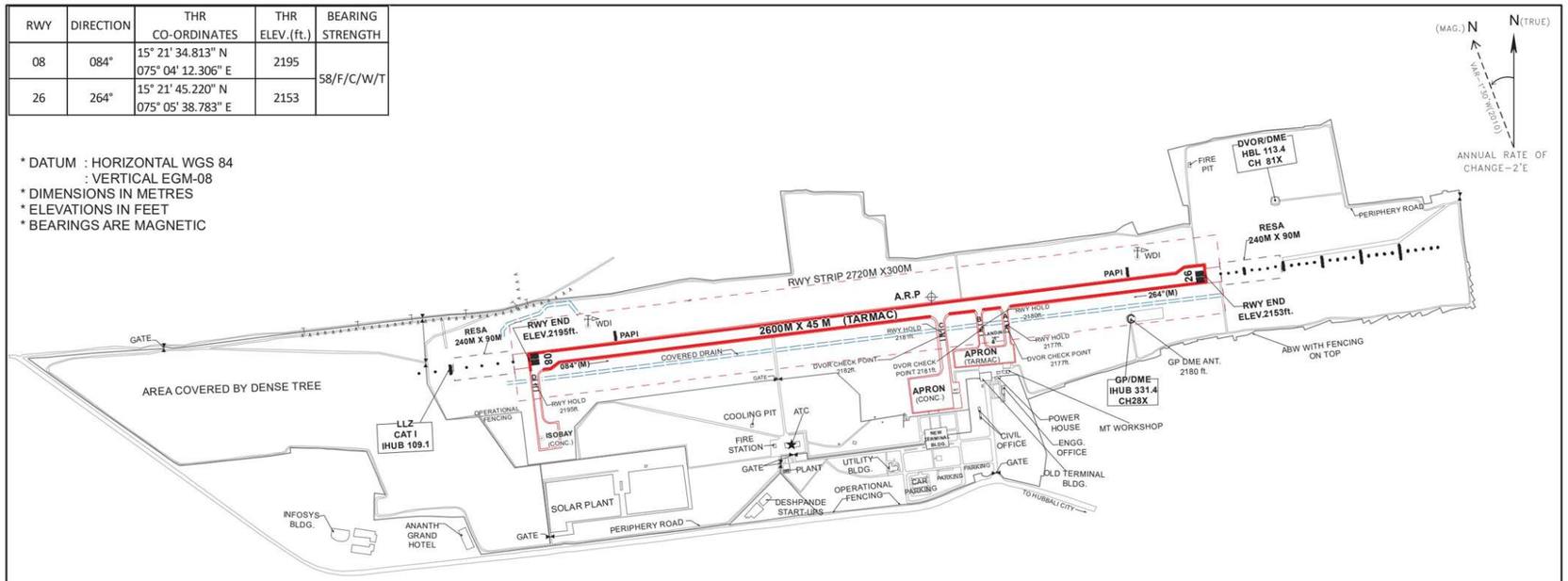
AD 2 VOHB 1-101 23 JAN 2025

AERODROME CHART | **15° 21'42.620"N 075° 05' 03.720"E** | **AD.ELEV. 2195ft.** | **TWR - 122.2 BACKUP- 118.85** | **HUBBALLI, INDIA**

HUBBALLI AIRPORT

RWY	DIRECTION	THR CO-ORDINATES	THR ELEV.(ft.)	BEARING STRENGTH
08	084°	15° 21' 34.813" N 075° 04' 12.306" E	2195	58/F/C/W/T
26	264°	15° 21' 45.220" N 075° 05' 38.783" E	2153	

* DATUM : HORIZONTAL WGS 84
: VERTICAL EGM-08
* DIMENSIONS IN METRES
* ELEVATIONS IN FEET
* BEARINGS ARE MAGNETIC



SCALE

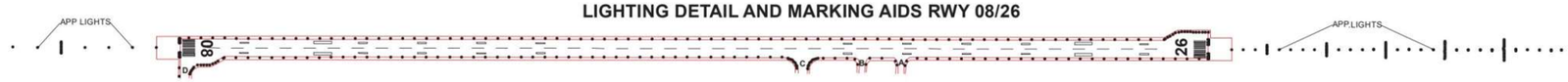
600 300 0 600 Meters

2,000 1,000 0 2,000 Feet

DECLARED DISTANCE (IN METRES)				
RWY	TORA	TODA	ASDA	LDA
08	2600	2600	2600	2600
26	2600	2600	2600	2600

LEGEND	
DVOR CHECK POINT	
RWY HOLDING POSITION	

LIGHTING DETAIL AND MARKING AIDS RWY 08/26



DATE OF AERONAUTICAL INFORMATION
JUNE, 2023

DRG.NO. AAI/38-ADM/2023
(UPDATED AS ON 09-07-2024)

Airports Authority of India

AMDT 01/2025

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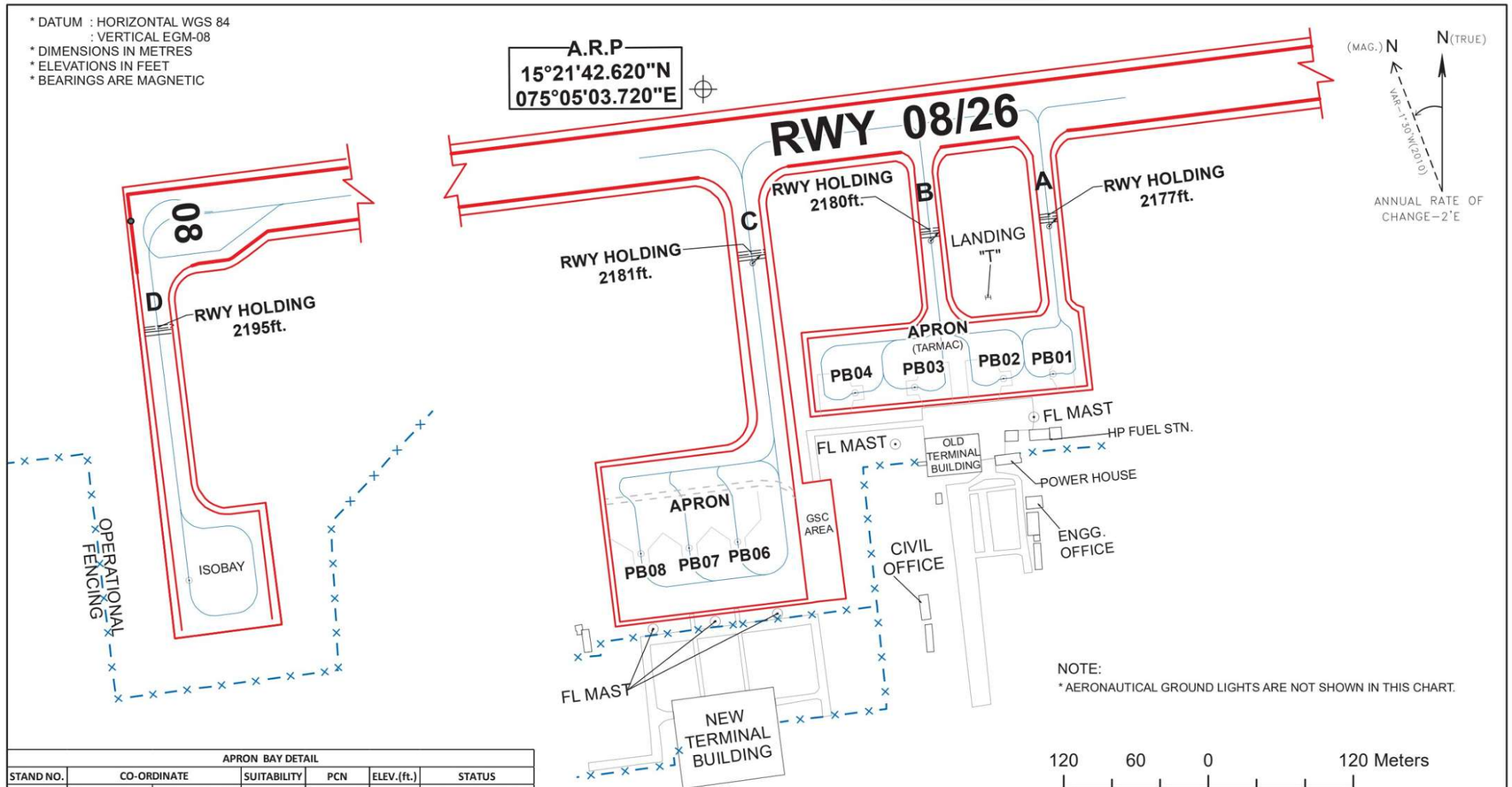
AIRCRAFT PARKING/ DOCKING CHART

APRON ELEV. - 2192ft.

TWR - 122.2
BACKUP - 118.85

HUBBALLI, INDIA
HUBBALLI AIRPORT

* DATUM : HORIZONTAL WGS 84
: VERTICAL EGM-08
* DIMENSIONS IN METRES
* ELEVATIONS IN FEET
* BEARINGS ARE MAGNETIC



NOTE:
* AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.

120 60 0 120 Meters
360 180 0 360 Feet

APRON BAY DETAIL

STAND NO.	CO-ORDINATE		SUITABILITY	PCN	ELEV.(ft.)	STATUS
PB-01	15° 21' 34.933" N	075° 05' 13.448" E	B200	19/R/B/W/T	2183	POWER IN POWER OUT
PB-02	15° 21' 34.802" N	075° 05' 12.070" E	AT72	72/R/A/W/T	2185	POWER IN POWER OUT
PB-03	15° 21' 34.570" N	075° 05' 09.603" E	AT72	72/R/A/W/T	2187	POWER IN POWER OUT
PB-04	15° 21' 34.417" N	075° 05' 07.949" E	AT72	19/R/B/W/T	2189	POWER IN POWER OUT
PB-06	15° 21' 30.392" N	075° 05' 04.672" E	AB-320	59/R/B/W/T	2192	POWER IN POWER OUT
PB-07	15° 21' 30.231" N	075° 05' 03.324" E	AB-320	59/R/B/W/T	2192	POWER IN POWER OUT
PB-08	15° 21' 30.070" N	075° 05' 01.975" E	AB-320	59/R/B/W/T	2192	POWER IN POWER OUT
ISOBAY	15° 21' 25.109" N	075° 04' 13.933" E	-	61/R/B/W/T	2204	POWER IN POWER OUT

TWY	PCN	WIDTH
TWY"A"	21/F/C/W/T	15M
TWY"B"	44/F/C/W/T	15M
TWY"C"	58/F/C/W/T	23M
TWY"D"	58/F/C/W/T	23M

LEGEND	
AIRCRAFT STAND	8
VOR CHECK POINT	
RWY HOLDING POSITION	

DATE OF AERONAUTICAL INFORMATION
JUNE, 2023

DRG.NO.-AAI/39-PDC/2023
(Updated as on 09-07-24)

Airports Authority of India

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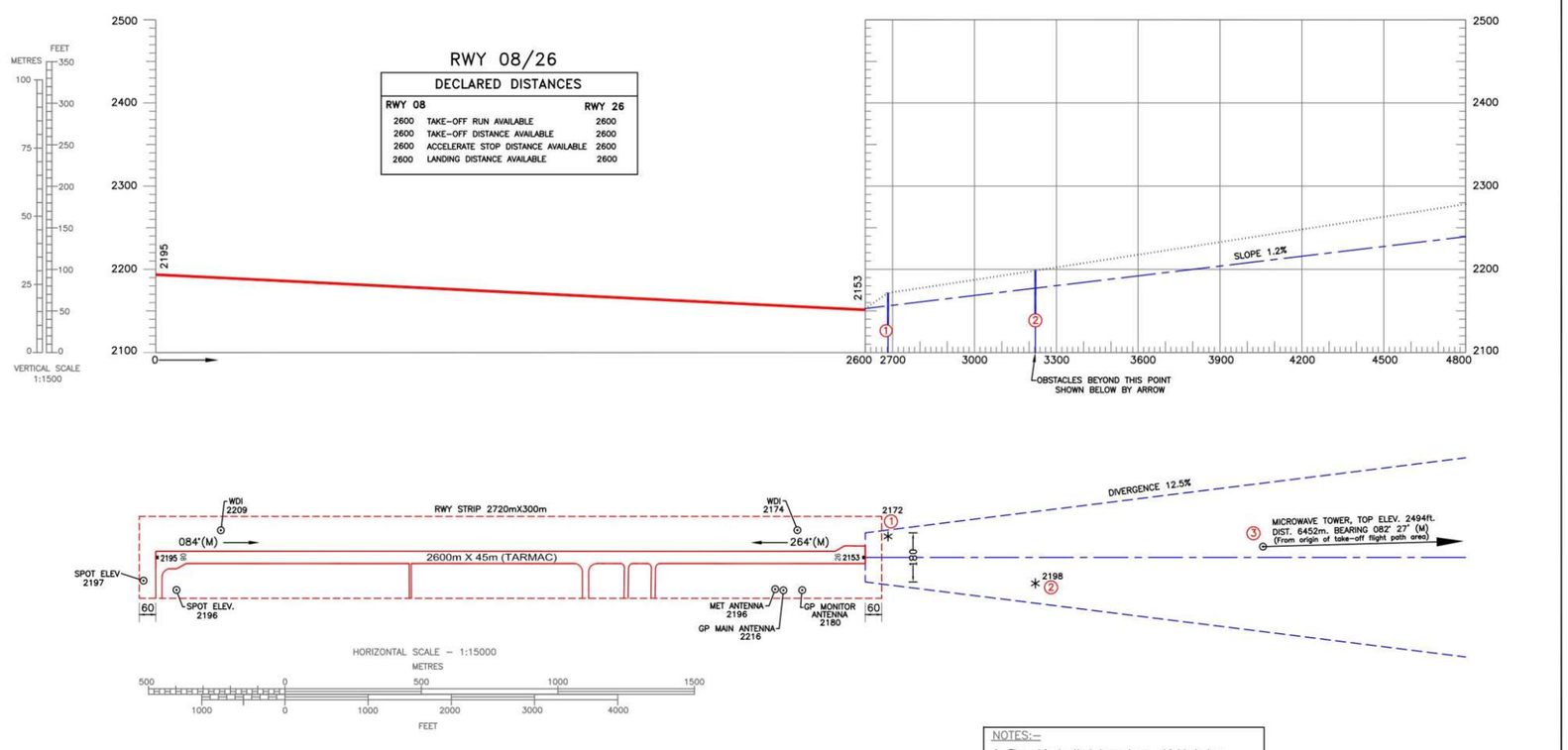
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ELEVATIONS IN FEET AND EGM-08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

INDIA / HUBBALLI
HUBBALLI AIRPORT / RWY 08

MAGNETIC VARIATION 2°W (2010)



LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	③	
TREE, BUSHES OR SHRUB	*	
LIGHT,MAST,TOWER,ANTENNA ETC...	⊙	
		③

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

OBSTACLE TABLE- APP. 26

S.NO.	UUID	OBJECT	ELEV-FT
1	VOHB_6066	GROUP OF TREES	2172
2	VOHB_6072	GROUP OF TREES	2198
3	VOHB_7167	MICROWAVE TOWER	2494

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–08.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic) (In degree minute : Rwy 08/26=084°26'/264°26')(2010) (In degree minute : Rwy 08/26=084°00'/264°00')(2023)
6. Magnetic Variation rounded to nearest degree 1°30'W, Annual rate of change 02'E (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey Dec. 2022.
8. Chart prepared based on DGCA CAR section 9 AS & ATM Series 'G', Part–1.

AMENDMENT RECORD		
NO.	DATE	REFERENCE

AERONAUTICAL INFORMATION UPTO – JUNE 2023

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA

CHART No. AAI/41–OBS/CARTO/2023

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HBX | VOHB-AOCTA-RWY-26

Existing / obstacles | AAI AIM | Original PDF page 1

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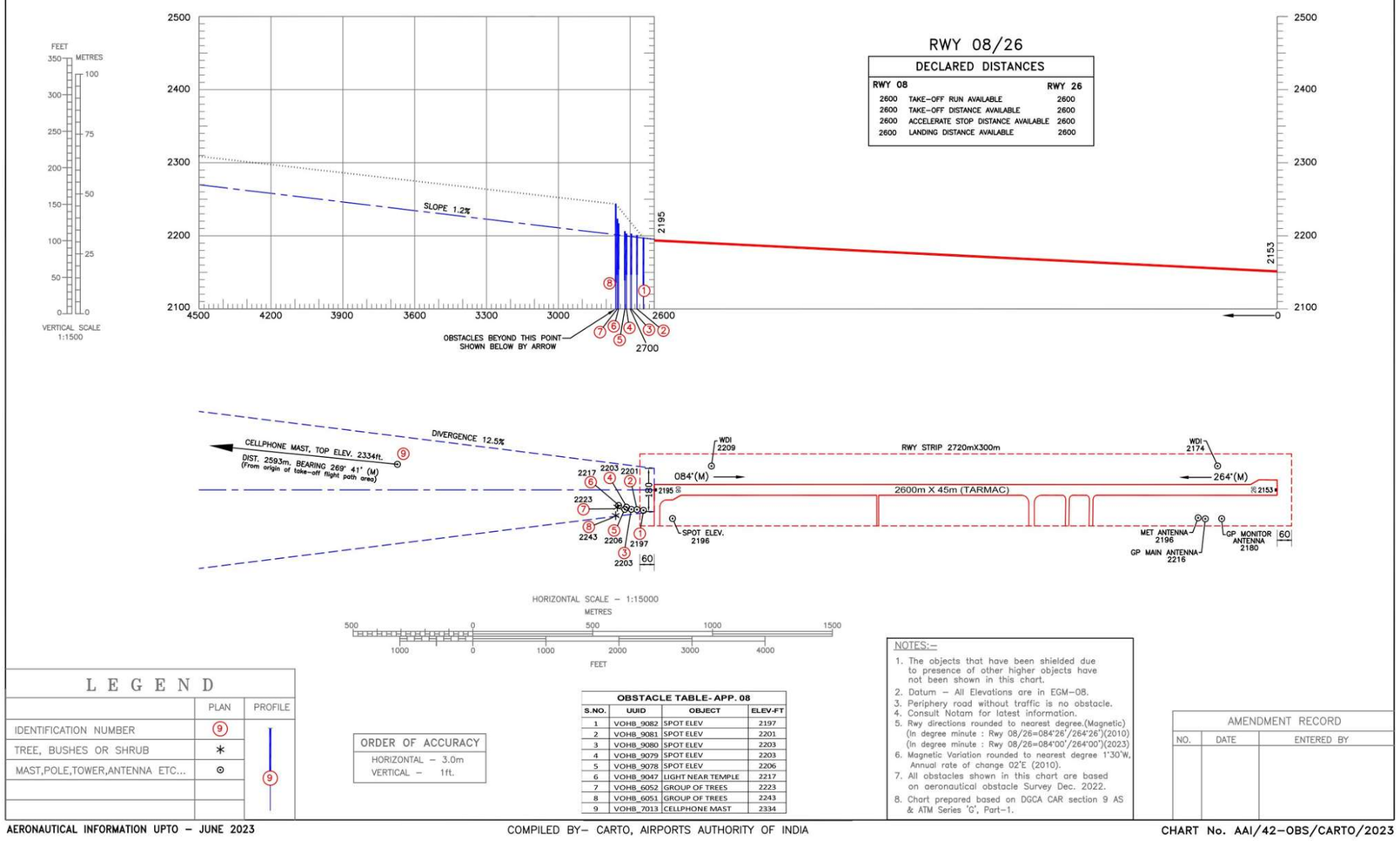
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ELEVATIONS IN FEET AND EGM-08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

INDIA / HUBBALLI
HUBBALLI AIRPORT / RWY 26

MAGNETIC VARIATION 2°W (2010)



RWY 08/26
DECLARED DISTANCES

RWY 08		RWY 26
2600	TAKE–OFF RUN AVAILABLE	2600
2600	TAKE–OFF DISTANCE AVAILABLE	2600
2600	ACCELERATE STOP DISTANCE AVAILABLE	2600
2600	LANDING DISTANCE AVAILABLE	2600

LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	9	
TREE, BUSHES OR SHRUB	*	
MAST,POLE,TOWER,ANTENNA ETC...	⊙	

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

OBSTACLE TABLE- APP. 08

S.NO.	UUID	OBJECT	ELEV-FT
1	VOHB_9082	SPOT ELEV	2197
2	VOHB_9081	SPOT ELEV	2201
3	VOHB_9080	SPOT ELEV	2203
4	VOHB_9079	SPOT ELEV	2203
5	VOHB_9078	SPOT ELEV	2206
6	VOHB_9047	LIGHT NEAR TEMPLE	2217
7	VOHB_6052	GROUP OF TREES	2223
8	VOHB_6051	GROUP OF TREES	2243
9	VOHB_7013	CELLPHONE MAST	2334

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–08.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic)
   (In degree minute : Rwy 08/26=084°26'/264°26')(2010)
   (In degree minute : Rwy 08/26=084°00'/264°00')(2023)
6. Magnetic Variation rounded to nearest degree 1°30'W, Annual rate of change 02'E. (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey Dec. 2022.
8. Chart prepared based on DGCA CAR section 9 AS & ATM Series 'G', Part–1.

AMENDMENT RECORD

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AERONAUTICAL INFORMATION UPTO – JUNE 2023

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA

CHART No. AAI/42–OBS/CARTO/2023

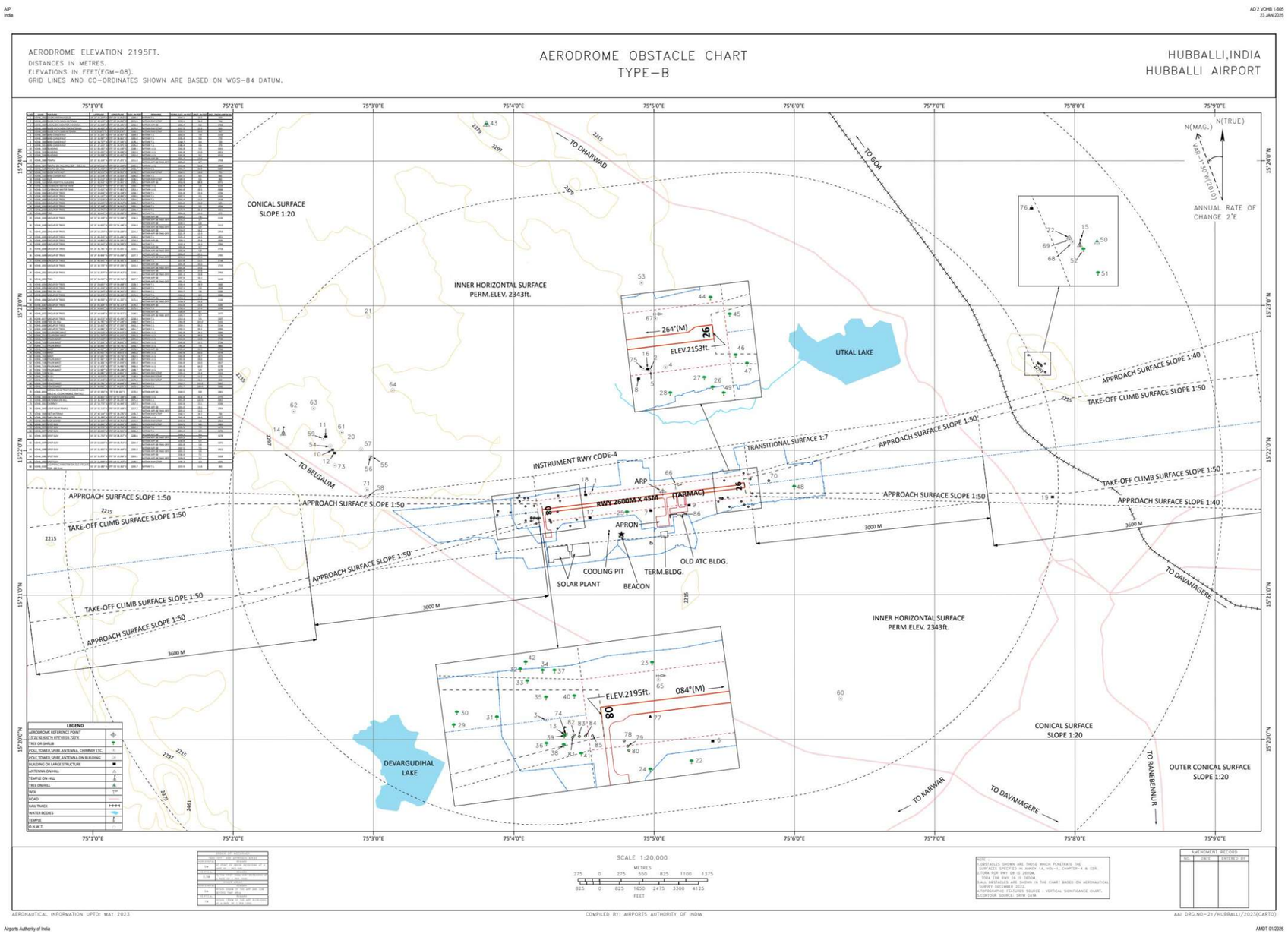
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HBX | VOHB-AOCTB

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ATQ | VIAR-ADC

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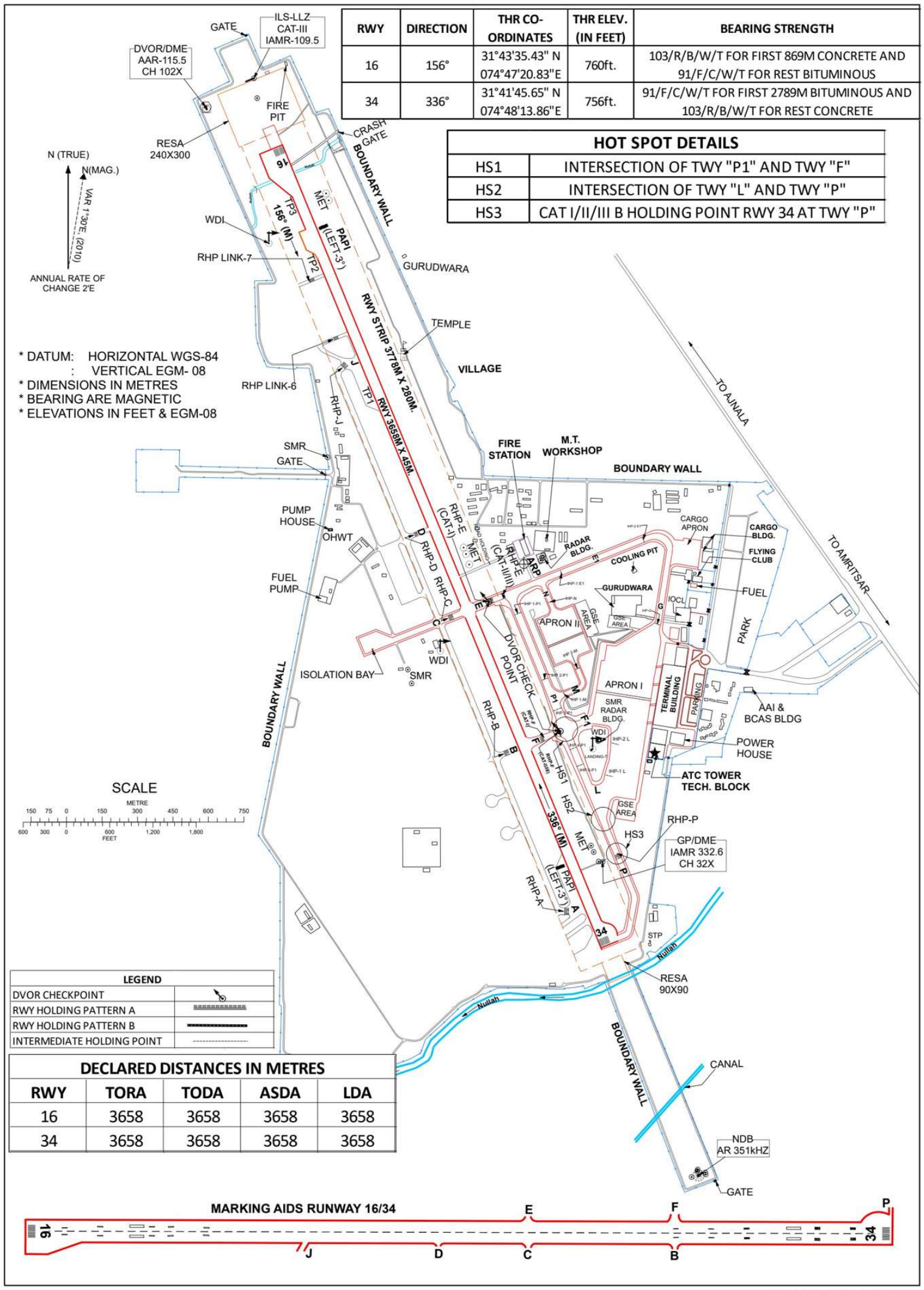
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AERODROME CHART — ARP 31°42'38.13"N 074°48'00.56"E — AD. ELEV. 760ft. — TWR 124.350 BACKUP 118.150

AMRITSAR, INDIA
SRI GURU RAM DASS JEE INT'L AIRPORT

RWY	DIRECTION	THR CO-ORDINATES	THR ELEV. (IN FEET)	BEARING STRENGTH
16	156°	31°43'35.43" N 074°47'20.83"E	760ft.	103/R/B/W/T FOR FIRST 869M CONCRETE AND 91/F/C/W/T FOR REST BITUMINOUS
34	336°	31°41'45.65" N 074°48'13.86"E	756ft.	91/F/C/W/T FOR FIRST 2789M BITUMINOUS AND 103/R/B/W/T FOR REST CONCRETE

HOT SPOT DETAILS	
HS1	INTERSECTION OF TWY "P1" AND TWY "F"
HS2	INTERSECTION OF TWY "L" AND TWY "P"
HS3	CAT I/II/III B HOLDING POINT RWY 34 AT TWY "P"



LEGEND	
DVOR CHECKPOINT	
RWY HOLDING PATTERN A	
RWY HOLDING PATTERN B	
INTERMEDIATE HOLDING POINT	

DECLARED DISTANCES IN METRES				
RWY	TORA	TODA	ASDA	LDA
16	3658	3658	3658	3658
34	3658	3658	3658	3658

DATE OF AERONAUTICAL INFORMATION JUNE 2025 (UPDATED ON 08-07-25) DRG.NO. AAI/1-AC/2025

PUBLISHED MAP ATLAS

ATQ | VIAR-PDC

Existing / obstacles | AAI AIM | Original PDF page 1

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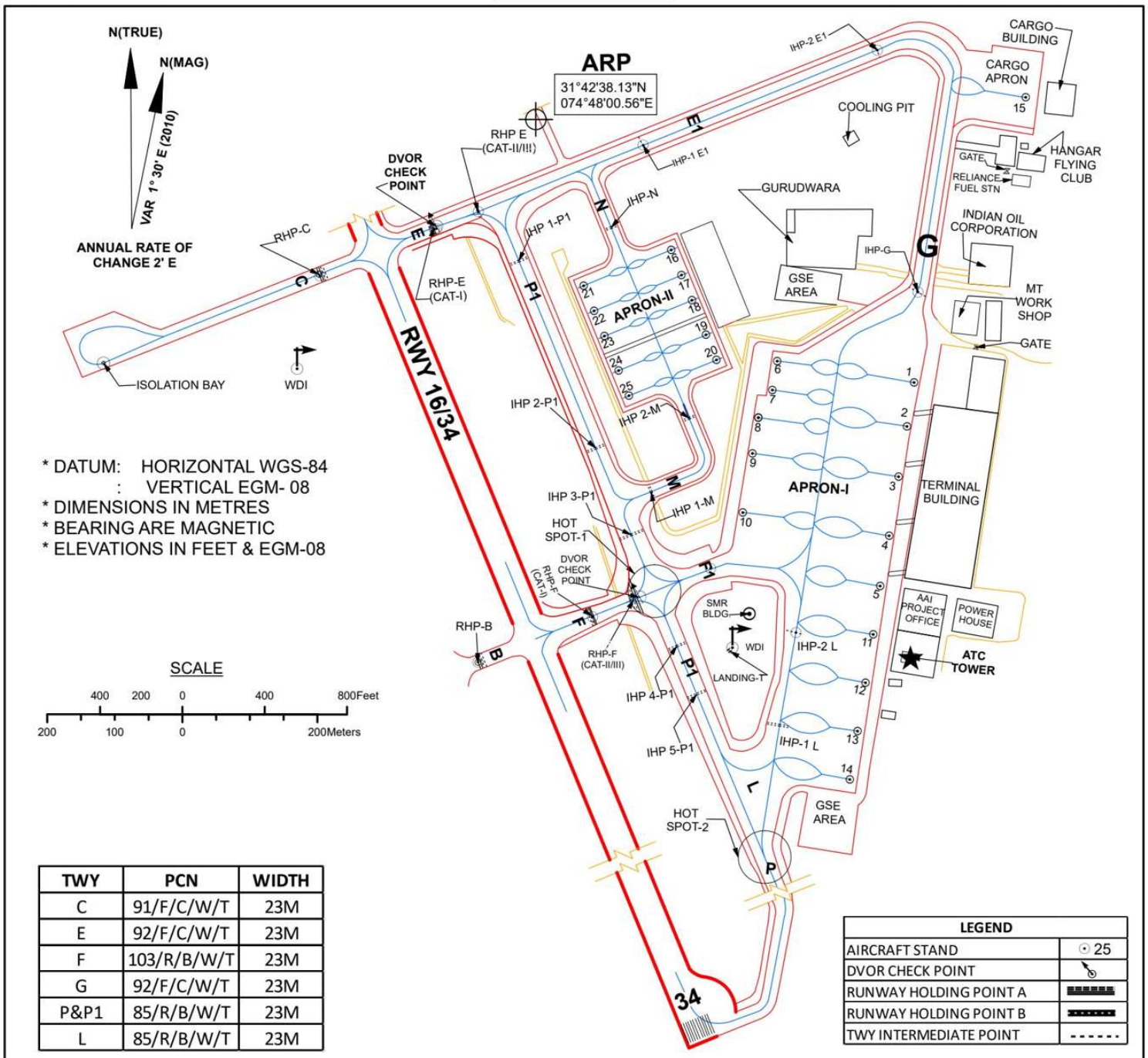
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AIRCRAFT PARKING/ DOCKING CHART

APRON-I ELEV. 757ft.
APRON-II ELEV. 757ft.

TWR 124.350
BACKUP 118.150

AMRITSAR, INDIA
SRI GURU RAM DASS JEE INT'L AIRPORT



* DATUM: HORIZONTAL WGS-84
: VERTICAL EGM- 08
* DIMENSIONS IN METRES
* BEARING ARE MAGNETIC
* ELEVATIONS IN FEET & EGM-08

SCALE

400 200 0 400 800Feet
200 100 0 200Meters

TWY	PCN	WIDTH
C	91/F/C/W/T	23M
E	92/F/C/W/T	23M
F	103/R/B/W/T	23M
G	92/F/C/W/T	23M
P&P1	85/R/B/W/T	23M
L	85/R/B/W/T	23M

LEGEND	
AIRCRAFT STAND	25
DVOR CHECK POINT	
RUNWAY HOLDING POINT A	
RUNWAY HOLDING POINT B	
TWY INTERMEDIATE POINT	

STAND NO.	WGS CO-ORDINATES FOR AIRCRAFT STANDS	SUITABILITY	PNC	ELEV. ft	STATUS
1	31° 42' 25.50105" N 074° 48' 21.86967" E	UPTO B764 (CODE-D)	84/R/B/W/T	757	POWER IN PUSH BACK
2	31° 42' 23.40203" N 074° 48' 21.47430" E	UPTO A346/B744 (CODE-E)	84/R/B/W/T	757	POWER IN PUSH BACK
3	31° 42' 20.96714" N 074° 48' 21.00124" E	UPTO A346/B744 (CODE-E)	84/R/B/W/T	757	POWER IN PUSH BACK
4	31° 42' 18.11446" N 074° 48' 20.48052" E	UPTO A346/B744 (CODE-E)	84/R/B/W/T	757	POWER IN PUSH BACK
5	31° 42' 15.70018" N 074° 48' 19.97529" E	UPTO A346/B744 (CODE-E)	84/R/B/W/T	757	POWER IN PUSH BACK
6	31° 42' 26.53035" N 074° 48' 14.16434" E	UPTO A321/B739 (CODE-C)	84/R/B/W/T	754	POWER IN PUSH BACK
7	31° 42' 25.13305" N 074° 48' 13.89521" E	UPTO A321/B739 (CODE-C)	84/R/B/W/T	754	POWER IN PUSH BACK
8	31° 42' 23.80100" N 074° 48' 13.10200" E	UPTO A321/B739 (CODE-C)	84/R/B/W/T	754	POWER IN PUSH BACK
9	31° 42' 22.08198" N 074° 48' 12.77981" E	UPTO B764 (CODE-D)	84/R/B/W/T	754	POWER IN PUSH BACK
10	31° 42' 19.23378" N 074° 48' 12.24625" E	UPTO B764 (CODE-D)	84/R/B/W/T	755	POWER IN PUSH BACK
11	31° 42' 13.37056" N 074° 48' 19.59345" E	UPTO A346/B744 (CODE-E)	84/R/B/W/T	757	POWER IN PUSH BACK
12	31° 42' 11.04902" N 074° 48' 19.15928" E	UPTO A346/B744 (CODE-E)	84/R/B/W/T	757	POWER IN PUSH BACK
13	31° 42' 08.72791" N 074° 48' 18.72416" E	UPTO A346/B744 (CODE-E)	84/R/B/W/T	757	POWER IN PUSH BACK
14	31° 42' 06.40597" N 074° 48' 18.29069" E	UPTO A346/B744 (CODE-E)	84/R/B/W/T	757	POWER IN PUSH BACK
15	31° 42' 39.21649" N 074° 48' 28.10957" E	-	84/R/B/W/T	756	POWER IN PUSH BACK
16	31° 42' 31.86325" N 074° 48' 08.19035" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
17	31° 42' 30.64665" N 074° 48' 08.77617" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
18	31° 42' 29.43053" N 074° 48' 09.36126" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
19	31° 42' 27.77720" N 074° 48' 10.15658" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
20	31° 42' 26.56157" N 074° 48' 10.74071" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
21	31° 42' 30.13316" N 074° 48' 03.27080" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
22	31° 42' 28.91682" N 074° 48' 03.85641" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
23	31° 42' 27.69980" N 074° 48' 04.44098" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
24	31° 42' 26.04794" N 074° 48' 05.23617" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
25	31° 42' 24.83134" N 074° 48' 05.82183" E	-	84/R/B/W/T	757	POWER IN PUSH BACK
ISOLATION BAY	31° 42' 26.36854" N 074° 47' 36.26482" E	-	103/R/B/W/T	756	POWER IN POWER OUT

DATE OF AERONAUTICAL INFORMATION
DECEMBER 2024

(UPDATED ON 03-07-2025)

DRG. AAI/2-PDC/2025

PUBLISHED MAP ATLAS

ATQ | VIAR-AOCTA-RWY-16

Existing / obstacles | AAI AIM | Original PDF page 1

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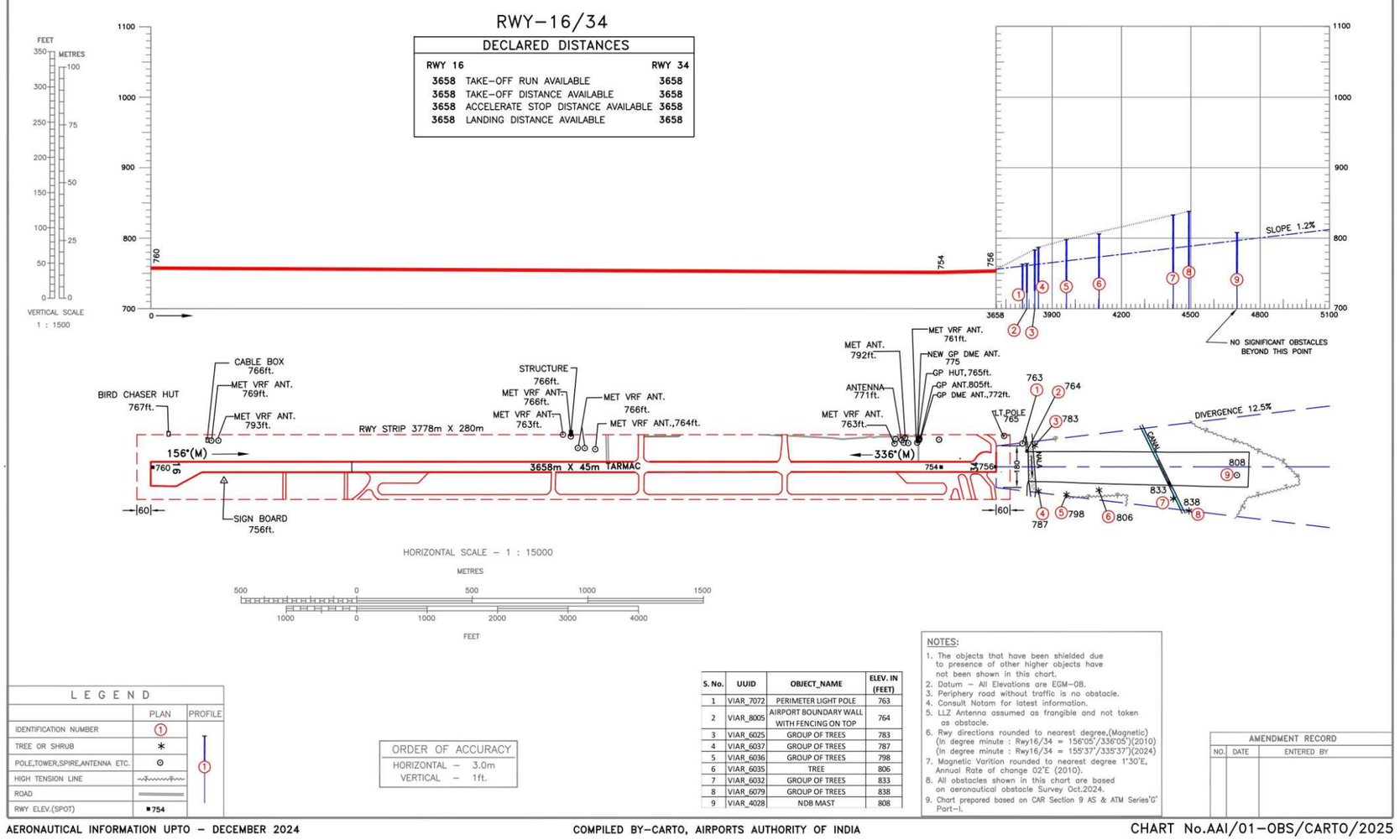
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ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE–A (OPERATING LIMITATIONS)

INDIA / AMRITSAR
SRI GURU RAM DASS JEE INTL. AIRPORT/ RWY 16

MAGNETIC VARIATION 2°E 2010



LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	1	
TREE OR SHRUB	*	
POLE,TOWER,SPIRE,ANTENNA ETC.	⊙	
HIGH TENSION LINE		
ROAD		
RWY ELEV.(SPOT)	▪754	

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

S. No.	UUID	OBJECT_NAME	ELEV. IN (FEET)
1	VIAR_7072	PERIMETER LIGHT POLE	763
2	VIAR_8005	AIRPORT BOUNDARY WALL WITH FENCING ON TOP	764
3	VIAR_6025	GROUP OF TREES	783
4	VIAR_6037	GROUP OF TREES	787
5	VIAR_6036	GROUP OF TREES	798
6	VIAR_6035	TREE	806
7	VIAR_6032	GROUP OF TREES	833
8	VIAR_6079	GROUP OF TREES	838
9	VIAR_4028	NDB MAST	808

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are EGM–08.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. LLZ Antenna assumed as frangible and not taken as obstacle.
6. Rwy directions rounded to nearest degree,(Magnetic) (In degree minute : Rwy16/34 = 156°05'/336°05')(2010) (In degree minute : Rwy16/34 = 155°37'/335°37')(2024)
7. Magnetic Varition rounded to nearest degree 1°30'E, Annual Rate of change 02'E (2010).
8. All obstacles shown in this chart are based on aeronautical obstacle Survey Oct.2024.
9. Chart prepared based on CAR Section 9 AS & ATM Series'G' Part–I.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO – DECEMBER 2024

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CHART No.AAI/01–OBS/CARTO/2025

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ATQ | VIAR-AOCTA-RWY-34

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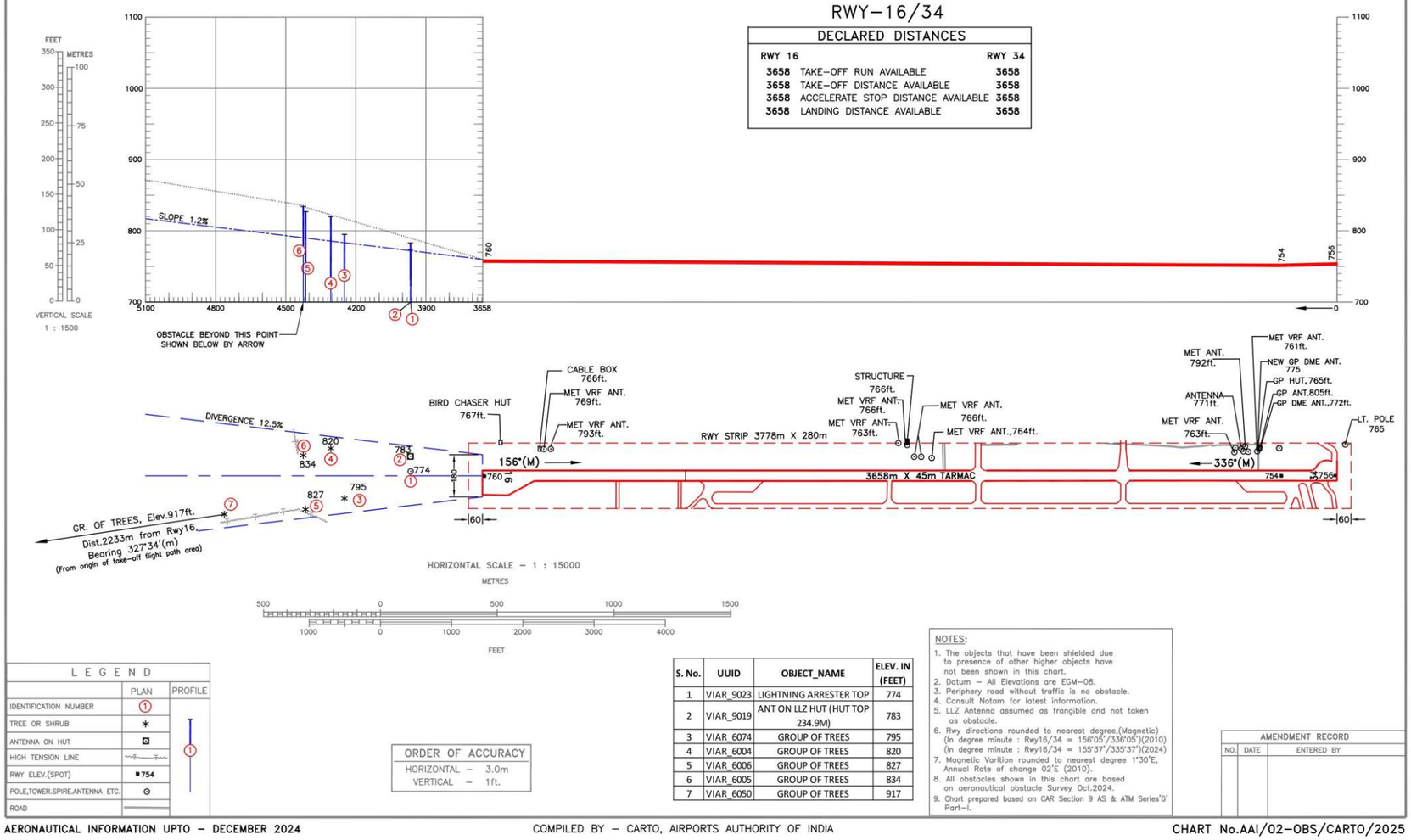
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AERODROME OBSTACLE CHART
TYPE–A (OPERATING LIMITATIONS)

INDIA / AMRITSAR
SRI GURU RAM DASS JEE INTL. AIRPORT/ RWY 34

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

MAGNETIC VARIATION 2°E (2010)



RWY–16/34

DECLARED DISTANCES

RWY 16		RWY 34
3658	TAKE–OFF RUN AVAILABLE	3658
3658	TAKE–OFF DISTANCE AVAILABLE	3658
3658	ACCELERATE STOP DISTANCE AVAILABLE	3658
3658	LANDING DISTANCE AVAILABLE	3658

LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
TREE OR SHRUB	*	
ANTENNA ON HUT	◘	
HIGH TENSION LINE		
RWY ELEV.(SPOT)	▪754	
POLE,TOWER,SPIRE,ANTENNA ETC.	⊙	
ROAD		

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

S. No.	UUID	OBJECT_NAME	ELEV. IN (FEET)
1	VIAR_9023	LIGHTNING ARRESTER TOP	774
2	VIAR_9019	ANT ON LLZ HUT (HUT TOP 234.9M)	783
3	VIAR_6074	GROUP OF TREES	795
4	VIAR_6004	GROUP OF TREES	820
5	VIAR_6006	GROUP OF TREES	827
6	VIAR_6005	GROUP OF TREES	834
7	VIAR_6050	GROUP OF TREES	917

NOTES:
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4. Consult Notam for latest information.
5. LLZ Antenna assumed as frangible and not taken as obstacle.
6. Rwy directions rounded to nearest degree,(Magnetic) (In degree minute : Rwy16/34 = 156°05'/336°05')(2010) (In degree minute : Rwy16/34 = 155°37'/335°37')(2024)
7. Magnetic Varition rounded to nearest degree 1°30'E, Annual Rate of change 02'E (2010).
8. All obstacles shown in this chart are based on aeronautical obstacle Survey Oct.2024.
9. Chart prepared based on CAR Section 9 AS & ATM Series'G' Part–I.

AMENDMENT RECORD

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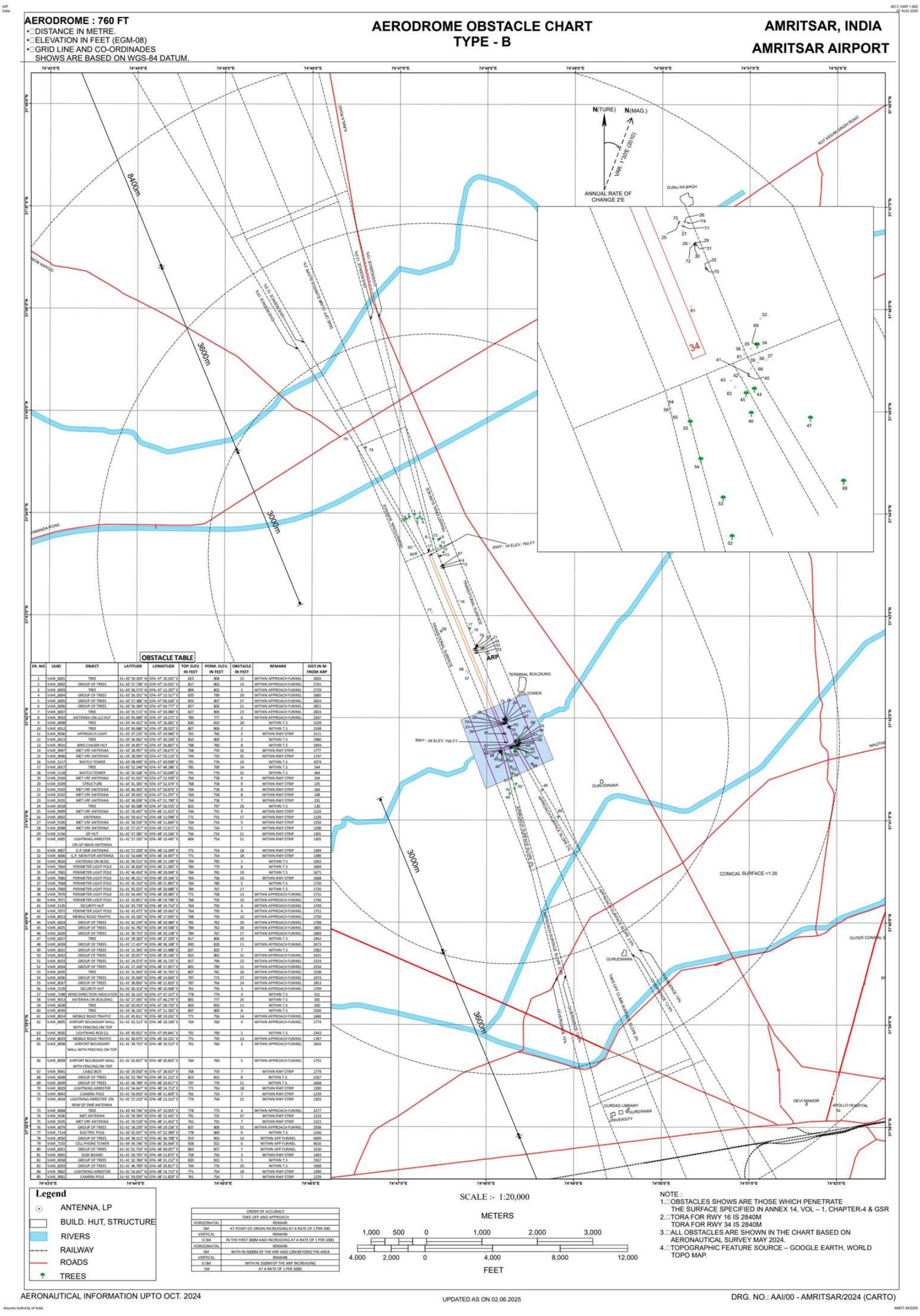
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OBSTACLE TABLE

SR. NO	UUID	OBJECT	LATITUDE	LONGITUDE	TOP ELEV. IN FEET	PERM. ELEV. IN FEET	OBSTACLE IN FEET	REMARK	DIST.IN M FROM ARP
1	VIAR_6001	TREE	31› 43' 59.304" N	074› 47' 10.431" E	823	808	15	WITHIN APPROACH FUNNEL	2826
2	VIAR_6002	GROUP OF TREES	31› 43' 57.738" N	074› 47' 14.031" E	817	803	14	WITHIN APPROACH FUNNEL	2741
3	VIAR_6003	TREE	31› 43' 56.574" N	074› 47' 12.297" E	804	802	3	WITHIN APPROACH FUNNEL	2729
4	VIAR_6004	GROUP OF TREES	31› 43' 56.351" N	074› 47' 15.517" E	820	799	20	WITHIN APPROACH FUNNEL	2685
5	VIAR_6005	GROUP OF TREES	31› 43' 57.386" N	074› 47' 06.626" E	833	807	27	WITHIN APPROACH FUNNEL	2824
6	VIAR_6006	GROUP OF TREES	31› 43' 56.369" N	074› 47' 04.777" E	827	806	21	WITHIN APPROACH FUNNEL	2821
7	VIAR_6007	TREE	31› 43' 55.572" N	074› 47' 03.080" E	827	806	23	WITHIN APPROACH FUNNEL	2824
8	VIAR_9059	ANTENNA ON LLZ HUT	31› 43' 45.689" N	074› 47' 19.271" E	784	777	6	WITHIN APPROACH FUNNEL	2347
9	VIAR_6008	TREE	31› 43' 44.422" N	074› 47' 26.681" E	830	810	18	WITHIN T.S	2228
10	VIAR_6012	TREE	31› 43' 43.686" N	074› 47' 28.023" E	827	806	2	WITHIN T.S	2108
11	VIAR_9036	APPROACH LIGHT	31› 43' 37.233" N	074› 47' 19.960" E	761	760	2	WITHIN RWY STRIP	2111
12	VIAR_6013	TREE	31› 43' 36.962" N	074› 47' 30.204" E	810	809	2	WITHIN T.S	1980
13	VIAR_9016	BIRD CHASER HUT	31› 43' 34.857" N	074› 47' 26.867" E	768	760	8	WITHIN T.S	1959
14	VIAR_9097	MET VRF ANTENNA	31› 43' 28.997" N	074› 47' 28.675" E	768	759	10	WITHIN RWY STRIP	1777
15	VIAR_9096	MET VRF ANTENNA	31› 43' 28.094" N	074› 47' 29.119" E	794	759	35	WITHIN RWY STRIP	1747
16	VIAR_5117	WATCH TOWER	31› 43' 38.699" N	074› 47' 40.908" E	791	776	13	WITHIN T.S	1074
17	VIAR_6017	TREE	31› 42' 52.348" N	074› 47' 48.286" E	781	769	14	WITHIN T.S	544
18	VIAR_5118	WATCH TOWER	31› 42' 50.168" N	074› 47' 50.000" E	791	776	15	WITHIN T.S	464
19	VIAR_9104	MET VRF ANTENNA	31› 42' 41.922" N	074› 47' 52.430" E	764	758	6	WITHIN RWY STRIP	244
20	VIAR_5039	STRUCTURE	31› 42' 41.365" N	074› 47' 52.474" E	768	758	9	WITHIN RWY STRIP	235
21	VIAR_9103	MET VRF ANTENNA	31› 42' 40.363" N	074› 47' 50.876" E	764	758	8	WITHIN RWY STRIP	264
22	VIAR_9102	MET VRF ANTENNA	31› 42' 39.455" N	074› 47' 51.297" E	764	758	8	WITHIN RWY STRIP	248
23	VIAR_9101	MET VRF ANTENNA	31› 42' 38.039" N	074› 47' 51.790" E	764	758	7	WITHIN RWY STRIP	231
24	VIAR_6018	TREE	31› 42' 40.588" N	074› 47' 56.555" E	823	797	26	WITHIN T.S	130
25	VIAR_9089	MET VRF ANTENNA	31› 41' 59.447" N	074› 48' 11.453" E	764	755	9	WITHIN RWY STRIP	1224
26	VIAR_9002	ANTENNA	31› 41' 59.412" N	074› 48' 12.098" E	771	755	17	WITHIN RWY STRIP	1229
27	VIAR_9100	MET VRF ANTENNA	31› 41' 58.559" N	074› 48' 11.869" E	764	754	9	WITHIN RWY STRIP	1254
28	VIAR_9098	MET VRF ANTENNA	31› 41' 57.257" N	074› 48' 12.671" E	761	754	7	WITHIN RWY STRIP	1298
29	VIAR_5156	GP HUT	31› 41' 57.285" N	074› 48' 13.266" E	764	754	11	WITHIN RWY STRIP	1301
30	VIAR_4005	LIGHTNING ARRESTER ON GP MAIN ANTENNA	31› 41' 57.192" N	074› 48' 13.445" E	804	754	51	WITHIN RWY STRIP	1305
31	VIAR_4007	G.P.DME ANTENNA	31› 41' 57.209" N	074› 48' 13.309" E	771	754	18	WITHIN RWY STRIP	1304
32	VIAR_4006	G.P. MONITOR ANTENNA	31› 41' 54.646" N	074› 48' 14.697" E	771	754	18	WITHIN RWY STRIP	1389
33	VIAR_5010	AINTENNA ON BLDG	31› 41' 49.522" N	074› 48' 21.190" E	754	795	1	WITHIN T.S	1592
34	VIAR_7064	PERIMETER LIGHT POLE	31› 41' 46.830" N	074› 48' 21.045" E	784	779	6	WITHIN T.S	1669
35	VIAR_7065	PERIMETER LIGHT POLE	31› 41' 46.450" N	074› 48' 20.040" E	784	765	19	WITHIN T.S	1671
36	VIAR_7066	PERIMETER LIGHT POLE	31› 41' 46.311" N	074› 48' 19.146" E	764	756	10	WITHIN RWY STRIP	1668
37	VIAR_7068	PERIMETER LIGHT POLE	31› 41' 45.110" N	074› 48' 21.892" E	784	780	5	WITHIN T.S	1720
38	VIAR_7069	PERIMETER LIGHT POLE	31› 41' 45.025" N	074› 48' 20.888" E	784	767	17	WITHIN T.S	1720
39	VIAR_7070	PERIMETER LIGHT POLE	31› 41' 44.445" N	074› 48' 20.085" E	771	758	13	WITHIN APPROACH FUNNEL	1731
40	VIAR_7071	PERIMETER LIGHT POLE	31› 41' 43.851" N	074› 48' 19.796" E	768	758	10	WITHIN APPROACH FUNNEL	1746
41	VIAR_5135	SECURITY HUT	31› 41' 43.739" N	074› 48' 19.734" E	764	759	4	WITHIN APPROACH FUNNEL	1749
42	VIAR_7072	PERIMETER LIGHT POLE	31› 41' 43.475" N	074› 48' 19.042" E	764	759	4	WITHIN APPROACH FUNNEL	1751
43	VIAR_8013	MOBILE ROAD TRAFFIC	31› 41' 43.182" N	074› 48' 17.693" E	768	759	10	WITHIN APPROACH FUNNEL	1750
44	VIAR_6024	GROUP OF TREES	31› 41' 42.239" N	074› 48' 20.480" E	781	762	20	WITHIN APPROACH FUNNEL	1798
45	VIAR_6025	GROUP OF TREES	31› 41' 41.782" N	074› 48' 19.508" E	784	762	20	WITHIN APPROACH FUNNEL	1805
46	VIAR_6026	GROUP OF TREES	31› 41' 39.753" N	074› 48' 20.138" E	784	767	17	WITHIN APPROACH FUNNEL	1869
47	VIAR_6027	TREE	31› 41' 39.287" N	074› 48' 27.209" E	817	806	10	WITHIN T.S	1942
48	VIAR_6028	GROUP OF TREES	31› 41' 17.457" N	074› 48' 16.108" E	830	820	11	WITHIN APPROACH FUNNEL	2673
49	VIAR_6031	GROUP OF TREES	31› 41' 15.305" N	074› 48' 15.988" E	837	829	7	WITHIN T.S	2582
50	VIAR_6032	GROUP OF TREES	31› 41' 20.957" N	074› 48' 20.106" E	833	802	31	WITHIN APPROACH FUNNEL	2431
51	VIAR_6033	GROUP OF TREES	31› 41' 24.073" N	074› 48' 16.725" E	817	794	23	WITHIN APPROACH FUNNEL	2319
52	VIAR_6034	GROUP OF TREES	31› 41' 27.100" N	074› 48' 17.857" E	801	789	11	WITHIN APPROACH FUNNEL	2234
53	VIAR_6035	TREE	31› 41' 31.043" N	074› 48' 16.763" E	807	781	26	WITHIN APPROACH FUNNEL	2108
54	VIAR_6036	GROUP OF TREES	31› 41' 35.040" N	074› 48' 14.060" E	797	772	27	WITHIN APPROACH FUNNEL	1974
55	VIAR_6037	GROUP OF TREES	31› 41' 38.856" N	074› 48' 12.810" E	787	764	24	WITHIN APPROACH FUNNEL	1853
56	VIAR_5139	SECURITY HUT	31› 41' 40.314" N	074› 48' 10.408" E	761	758	3	WITHIN APPROACH FUNNEL	1799
57	VIAR_7188	WIND DIRECTION INDICATOR	31› 42' 26.122" N	074› 47' 47.157" E	778	774	3	WITHIN T.S	511
58	VIAR_9013	ANTENNA ON BUILDING	31› 42' 27.395" N	074› 47' 46.276" E	801	777	25	WITHIN T.S	501
59	VIAR_6038	TREE	31› 42' 50.452" N	074› 47' 28.732" E	863	850	11	WITHIN T.S	920
60	VIAR_6039	TREE	31› 43' 36.101" N	074› 47' 11.302" E	807	800	8	WITHIN T.S	2206
61	VIAR_8014	MOBILE ROAD TRAFFIC	31› 41' 45.811" N	074› 48' 19.261" E	771	756	14	WITHIN APPROACH FUNNEL	1684
62	VIAR_8005	AIRPORT BOUNDARY WALL WITH FENCING ON TOP	31› 41' 42.513" N	074› 48' 18.169" E	764	760	4	WITHIN APPROACH FUNNEL	1774
63	VIAR_9030	LIGHTNING ROD (L)	31› 43' 40.653" N	074› 47' 09.841" E	791	790	1	WITHIN T.S	2343
64	VIAR_8019	MOBILE ROAD TRAFFIC	31› 41' 40.675" N	074› 48' 10.231" E	771	759	13	WITHIN APPROACH FUNNEL	1787
65	VIAR_8008	AIRPORT BOUNDARY WALL WITH FENCING ON TOP	31› 41' 39.755" N	074› 48' 10.513" E	761	760	2	WITHIN APPROACH FUNNEL	1816
66	VIAR_8009	AIRPORT BOUNDARY WALL WITH FENCING ON TOP	31› 41' 43.837" N	074› 48' 20.855" E	764	760	5	WITHIN APPROACH FUNNEL	1755
67	VIAR_9041	CABLE BOX	31› 43' 29.050" N	074› 47' 28.637" E	768	759	7	WITHIN RWY STRIP	1779
68	VIAR_6048	GROUP OF TREES	31› 41' 32.784" N	074› 48' 31.212" E	823	815	8	WITHIN T.S.	2167
69	VIAR_6049	GROUP OF TREES	31› 41' 46.789" N	074› 48' 20.817" E	797	776	21	WITHIN T.S.	1668
70	VIAR_9029	LIGHTNING ARRESTER	31› 41' 54.647" N	074› 48' 14.713" E	771	754	18	WITHIN RWY STRIP	1390
71	VIAR_9043	CAMERA POLE	31› 41' 55.050" N	074› 48' 11.829" E	761	754	7	WITHIN RWY STRIP	1239
72	VIAR_4034	LIGHTNING ARRESTER ON NEW GP DME ANTENNA	31› 41' 57.210" N	074› 48' 13.313" E	774	754	21	WITHIN RWY STRIP	1303
73	VIAR_6068	TREE	31› 43' 44.746" N	074› 47' 23.055" E	778	773	4	WITHIN APPROACH FUNNEL	2277
74	VIAR_9106	MET ANTENNA	31› 41' 59.394" N	074› 48' 12.431" E	791	755	37	WITHIN RWY STRIP	1233
75	VIAR_9105	MET VRF ANTENNA	31› 41' 59.518" N	074› 48' 11.453" E	761	755	7	WITHIN RWY STRIP	1222
76	VIAR_6070	GROUP OF TREES	31› 41' 18.230" N	074› 48' 19.226" E	837	806	31	WITHIN APPROACH FUNNEL	2508
77	VIAR_7134	ELECTRIC POLE	31› 43' 03.037" N	074› 47' 22.389" E	778	860	0	WITHIN T.S	1246
78	VIAR_6050	GROUP OF TREES	31› 44' 38.315" N	074› 46' 36.708" E	919	909	14	WITHIN APP FUNNEL	4309
79	VIAR_7292	CELL PHONE TOWER	31› 44' 44.780" N	074› 46' 26.644" E	928	922	6	WITHIN APP FUNNEL	4616
80	VIAR_6051	GROUP OF TREES	31› 41' 01.756" N	074› 48' 49.057" E	863	857	7	WITHIN APP FUNNEL	3230
81	VIAR_9065	SIGN BOARD	31› 41' 50.795" N	074› 48' 12.872" E	758	754	3	WITHIN RWY STRIP	1493
82	VIAR_6258	GROUP OF TREES	31› 41' 32.784" N	074› 48' 31.212" E	820	815	5	WITHIN T.S	2167
83	VIAR_6059	GROUP OF TREES	31› 41' 46.789" N	074› 48' 20.817" E	794	776	20	WITHIN T.S	1668
84	VIAR_9062	LIGHTNING ARRESTER	31› 41' 54.647" N	074› 48' 14.713" E	771	754	18	WITHIN RWY STRIP	1390
85	VIAR_9061	CAMERA POLE	31› 41' 55.050" N	074› 48' 11.829" E	761	754	7	WITHIN RWY STRIP	1239

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AERODROME CHART 32°09'53.05"N 076°15'43.76"E AD.ELEV. 2527ft.

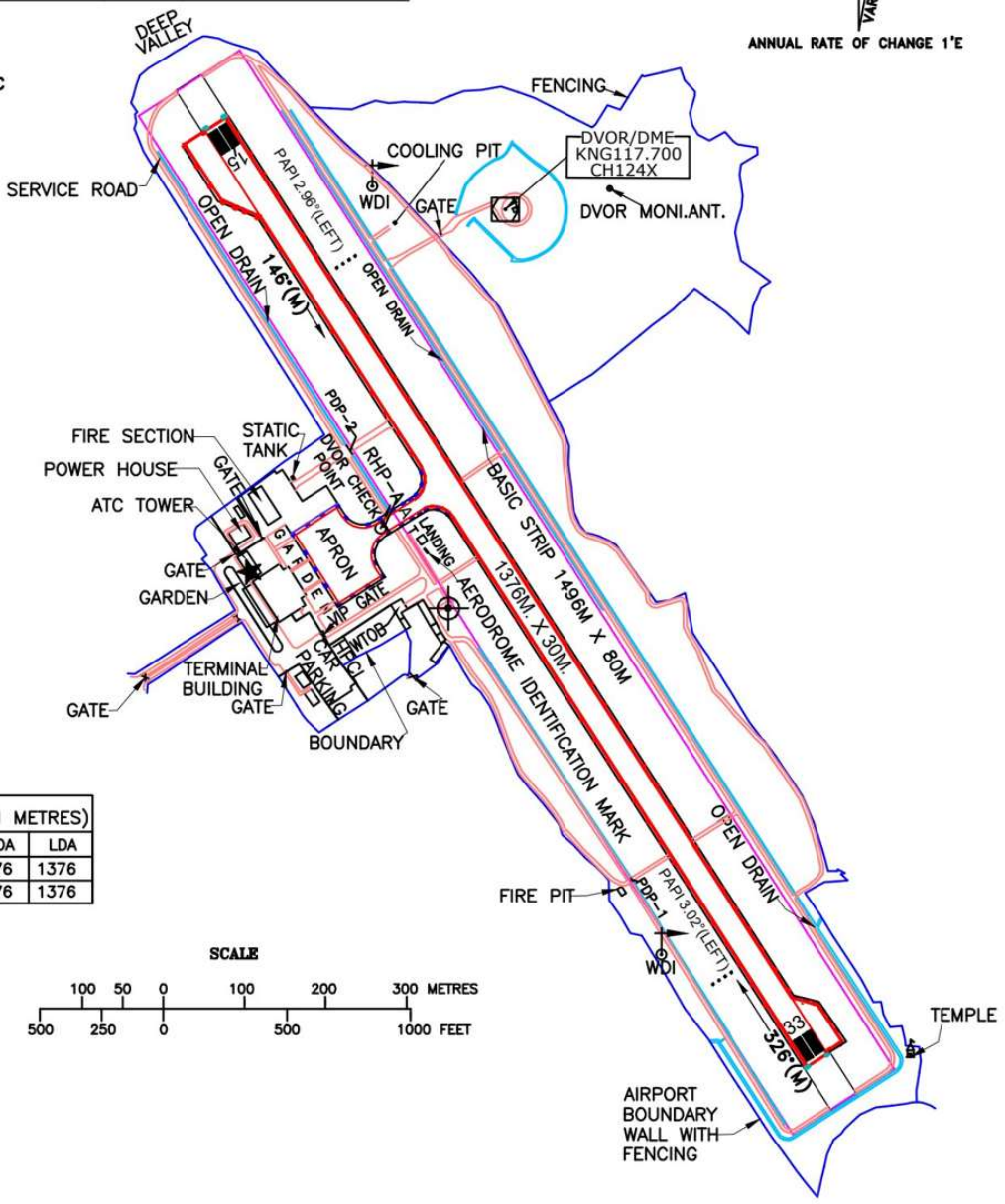
TWR 120.100
BACK UP 118.050

KANGRA, INDIA

KANGRA AIRPORT

RWY	DIRECTION	THR CO-ORDINATES	THR ELEV.	BEARING STRENGTH (PCR)
15	146°	32°10'12.60"N 076°15'33.05"E	2527	460/F/C/W/T
33	326°	32°09'34.73"N 076°16'00.88"E	2466	

* DATUM : HORIZONTAL–WGS–84; VERTICAL–EGM08
* BEARINGS ARE MAGNETIC
* DIMENSIONS IN METRES
* ELEVATIONS IN FEET



DECLARED DISTANCES (IN METRES)				
RWY	TORA	TODA	ASDA	LDA
15	1376	1376	1376	1376
33	1376	1376	1376	1376

LEGEND	
DVOR CHECK POINT	
RWY HOLDING POINT	

MARKING AIDS AND LIGHTING AIDS RUNWAY 15/33 (NOT TO SCALE)



DATE OF AERONAUTICAL INFORMATION
JUNE 2026

DRG.NO.–AAI/22–A.C./2026

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AIRCRAFT PARKING/ DOCKING CHART

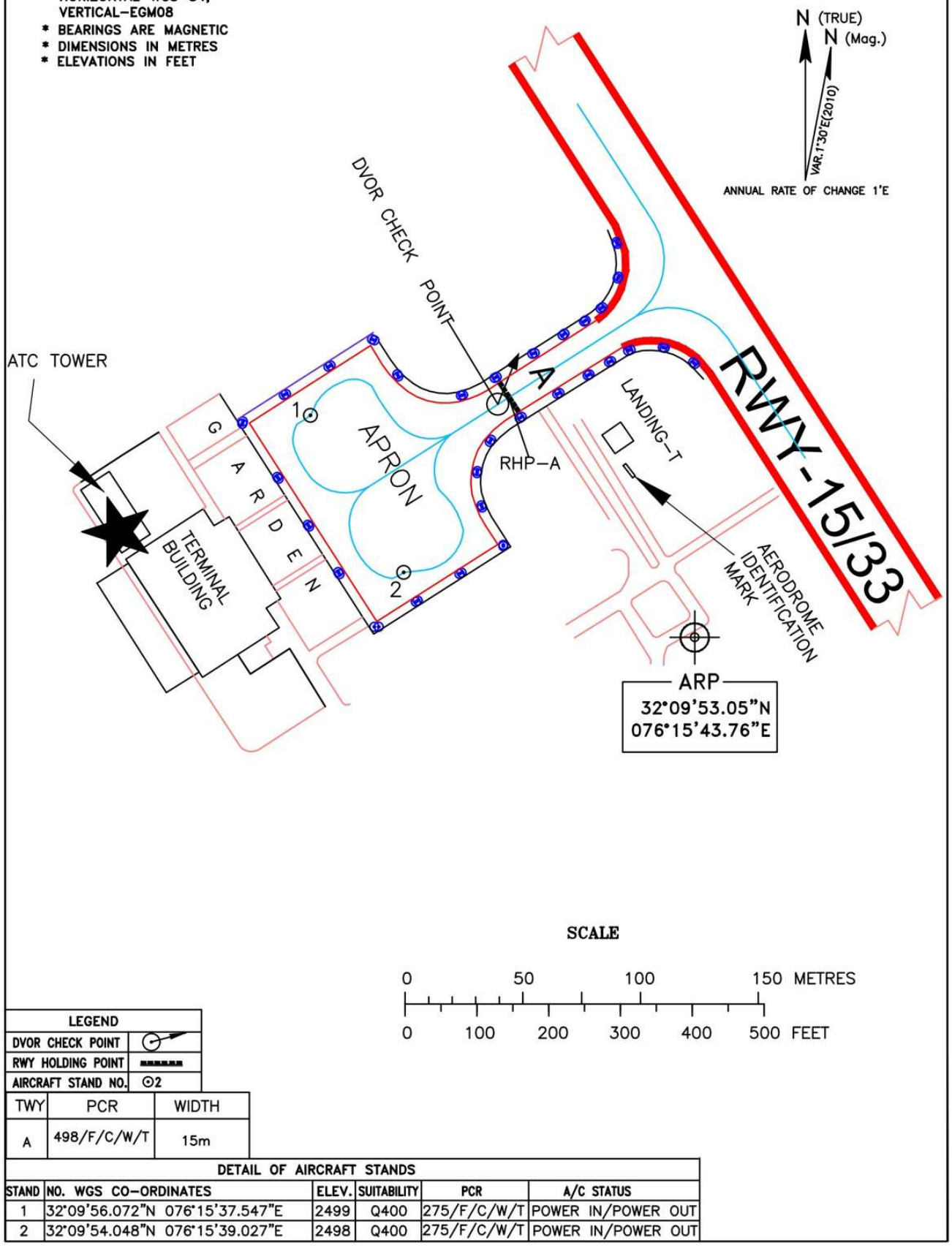
APRON ELEV. 2499ft.

TWR 120.100
BACK UP 118.050

KANGRA, INDIA

KANGRA AIRPORT

* DATUM : HORIZONTAL–WGS–84; VERTICAL–EGM08
* BEARINGS ARE MAGNETIC
* DIMENSIONS IN METRES
* ELEVATIONS IN FEET



LEGEND	
DVOR CHECK POINT	
RWY HOLDING POINT	
AIRCRAFT STAND NO.	⊙2

TWY	PCR	WIDTH
A	498/F/C/W/T	15m

DETAIL OF AIRCRAFT STANDS

STAND	NO. WGS CO–ORDINATES	ELEV.	SUITABILITY	PCR	A/C STATUS
1	32°09'56.072"N 076°15'37.547"E	2499	Q400	275/F/C/W/T	POWER IN/POWER OUT
2	32°09'54.048"N 076°15'39.027"E	2498	Q400	275/F/C/W/T	POWER IN/POWER OUT

DATE OF AERONAUTICAL INFORMATION
JUNE 2026

DRG.NO.–AAI/23–PDC/2026

PUBLISHED MAP ATLAS

DHM | VIGG-AOCTA-RWY-15

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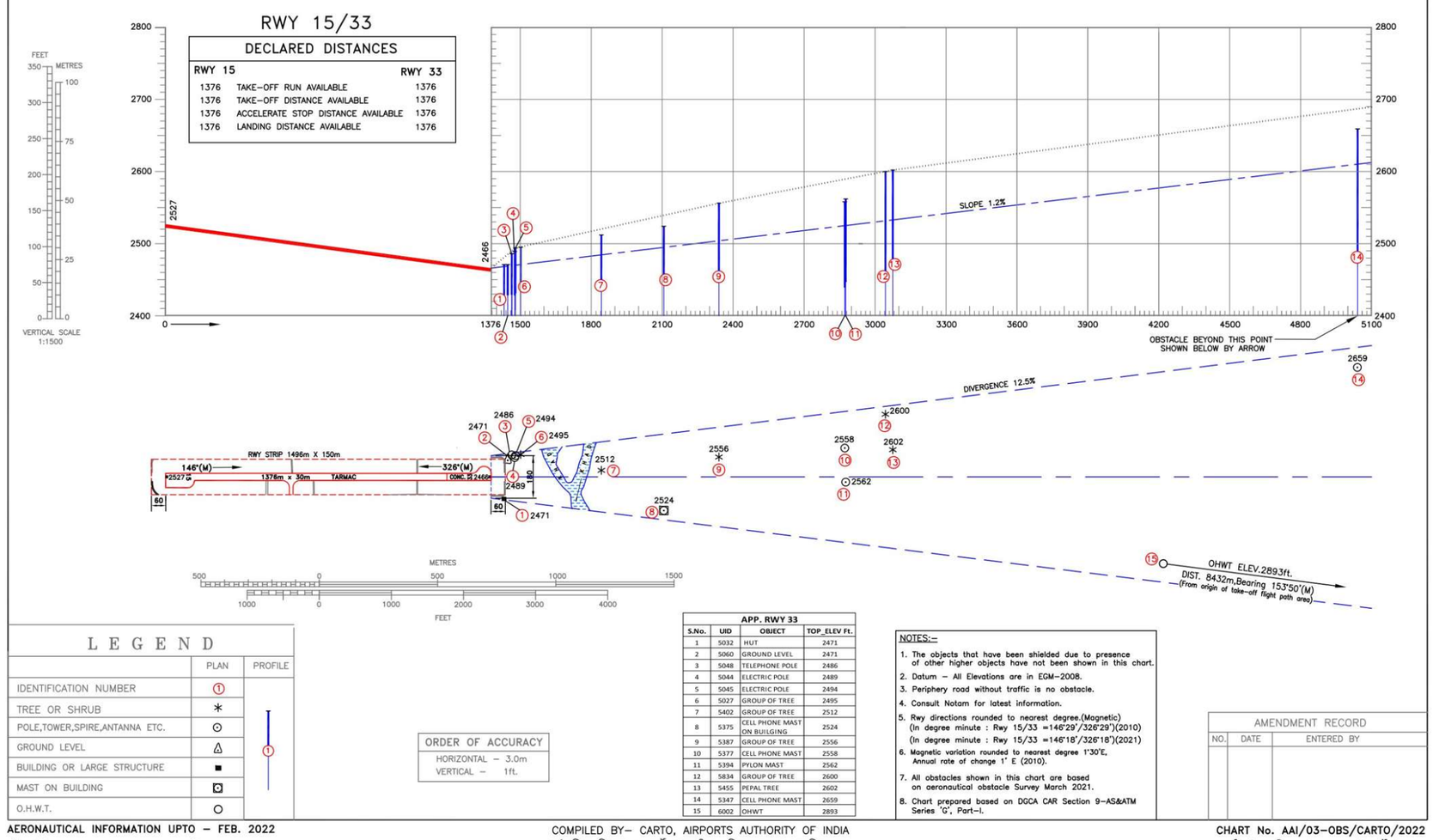
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ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

INDIA/KANGRA
KANGRA AIRPORT/ RWY 15

MAGNETIC VARIATION 2°E (2010)



LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
TREE OR SHRUB	*	
POLE,TOWER,SPIRE,ANTANNA ETC.	⊙	
GROUND LEVEL	△	①
BUILDING OR LARGE STRUCTURE	■	
MAST ON BUILDING	⊡	
O.H.W.T.	○	

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

APP. RWY 33

S.No.	UID	OBJECT	TOP_ELEV Ft.
1	5032	HUT	2471
2	5060	GROUND LEVEL	2471
3	5048	TELEPHONE POLE	2486
4	5044	ELECTRIC POLE	2489
5	5045	ELECTRIC POLE	2494
6	5027	GROUP OF TREE	2495
7	5402	GROUP OF TREE	2512
8	5375	CELL PHONE MAST ON BUILGING	2524
9	5387	GROUP OF TREE	2556
10	5377	CELL PHONE MAST	2558
11	5394	PYLON MAST	2562
12	5834	GROUP OF TREE	2600
13	5455	PEPAL TREE	2602
14	5347	CELL PHONE MAST	2659
15	6002	OHWT	2893

NOTES:–

1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–2008.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic)
   (In degree minute : Rwy 15/33 =146°29'/326°29')(2010)
   (In degree minute : Rwy 15/33 =146°18'/326°18')(2021)
6. Magnetic variation rounded to nearest degree 1°30'E, Annual rate of change 1' E (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey March 2021.
8. Chart prepared based on DGCA CAR Section 9–AS&ATM Series 'G', Part–I.

AMENDMENT RECORD

NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO – FEB. 2022
वैमानिक सूचना – फरवरी 2022 तक

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA
संग्रहित किया : कार्टो, भारतीय विमानपत्तन प्राधिकरण

CHART No. AAI/03–OBS/CARTO/2022
चार्ट सं. भा.वि.प्रा./03–अव./कार्टो/2022

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DHM | VIGG-AOCTA-RWY-33

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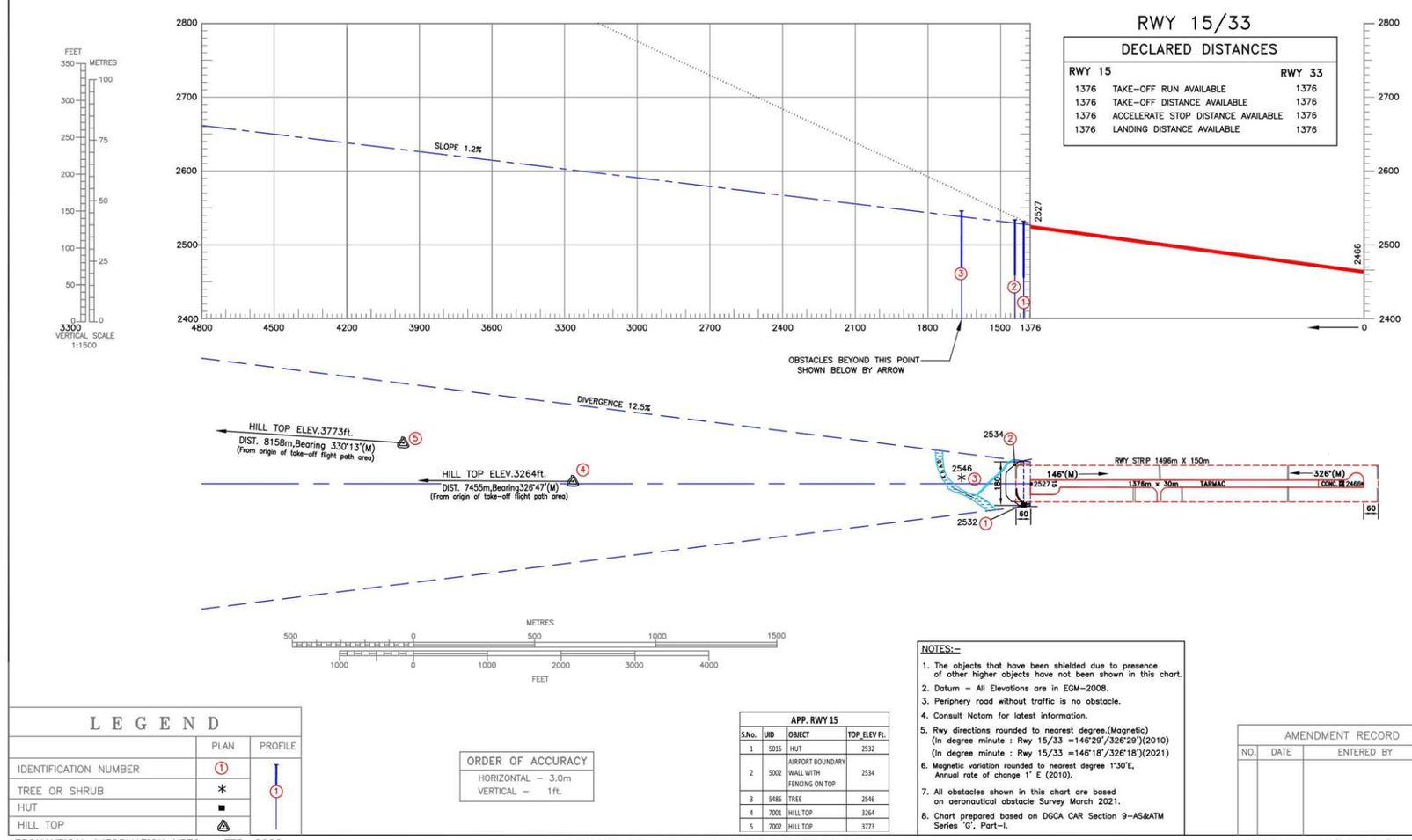
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ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

INDIA/KANGRA
KANGRA AIRPORT/ RWY 33

MAGNETIC VARIATION 2°E (2010)



LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
TREE OR SHRUB	*	
HUT	■	
HILL TOP	△	

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

APP. RWY 15

S.No.	UID	OBJECT	TOP_ELEV Ft.
1	5015	HUT	2532
2	5002	AIRPORT BOUNDARY WALL WITH FENCING ON TOP	2534
3	5486	TREE	2546
4	7001	HILL TOP	3264
5	7002	HILL TOP	3773

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–2008.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic)
   (In degree minute : Rwy 15/33 =146°29'/326°29')(2010)
   (In degree minute : Rwy 15/33 =146°18'/326°18')(2021)
6. Magnetic variation rounded to nearest degree 1°30'E, Annual rate of change 1° E (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey March 2021.
8. Chart prepared based on DGCA CAR Section 9–AS&ATM Series 'C', Part–I.

AMENDMENT RECORD

NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO – FEB. 2022
वैमानिक सूचना – फरवरी 2022 तक

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA
संग्रहित किया : कार्टो, भारतीय विमानपत्तन प्राधिकरण

CHART No. AAI/04–OBS/CARTO/2022
चार्ट सं. भा.वि.प्रा./04–अव./कार्टो/2022

PUBLISHED MAP ATLAS

RPR | VERP-ADC

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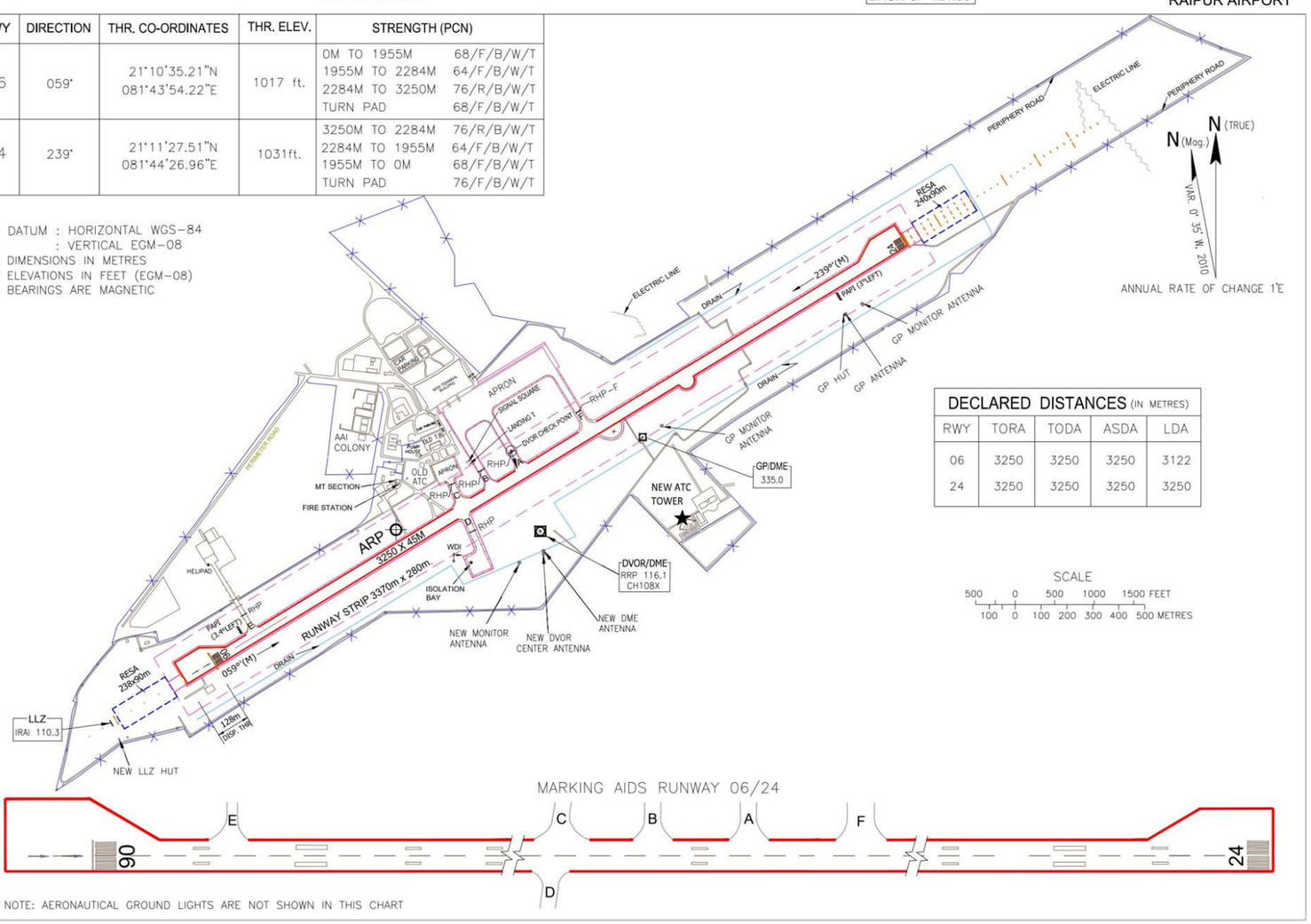
Published operational layout/obstacle reference; no as-built certification or current NOTAM check Retrieved 3 November 2026; chart date/revision as printed

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AERODROME CHART — 21°10'51.63"N 081°44'18.79"E — AD. ELEV. 1044ft. — TWR 124.75 BACK-UP 124.30 — RAIPUR, INDIA — RAIPUR AIRPORT

RWY	DIRECTION	THR. CO-ORDINATES	THR. ELEV.	STRENGTH (PCN)
06	059°	21°10'35.21"N 081°43'54.22"E	1017 ft.	0M TO 1955M 68/F/B/W/T 1955M TO 2284M 64/F/B/W/T 2284M TO 3250M 76/R/B/W/T TURN PAD 68/F/B/W/T
24	239°	21°11'27.51"N 081°44'26.96"E	1031ft.	3250M TO 2284M 76/R/B/W/T 2284M TO 1955M 64/F/B/W/T 1955M TO 0M 68/F/B/W/T TURN PAD 76/F/B/W/T

* DATUM : HORIZONTAL WGS-84
  : VERTICAL EGM-08
* DIMENSIONS IN METRES
* ELEVATIONS IN FEET (EGM-08)
* BEARINGS ARE MAGNETIC



DECLARED DISTANCES (IN METRES)

RWY	TORA	TODA	ASDA	LDA
06	3250	3250	3250	3122
24	3250	3250	3250	3250

SCALE
500 0 500 1000 1500 FEET
100 0 100 200 300 400 500 METRES

MARKING AIDS RUNWAY 06/24

NOTE: AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART

DATE OF AERONAUTICAL INFORMATION
JANUARY, 2023

AIRPORTS AUTHORITY OF INDIA

(UPDATED ON 25.07.2025)

DRG. NO. AAI-05/AC/2023(CARTO)

Airports Authority of India

AMDT 01/2026

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AIP
India

AD 2 VERP 1-301
16 APRIL 2026

AIRCRAFT PARKING/
DOCKING CHART

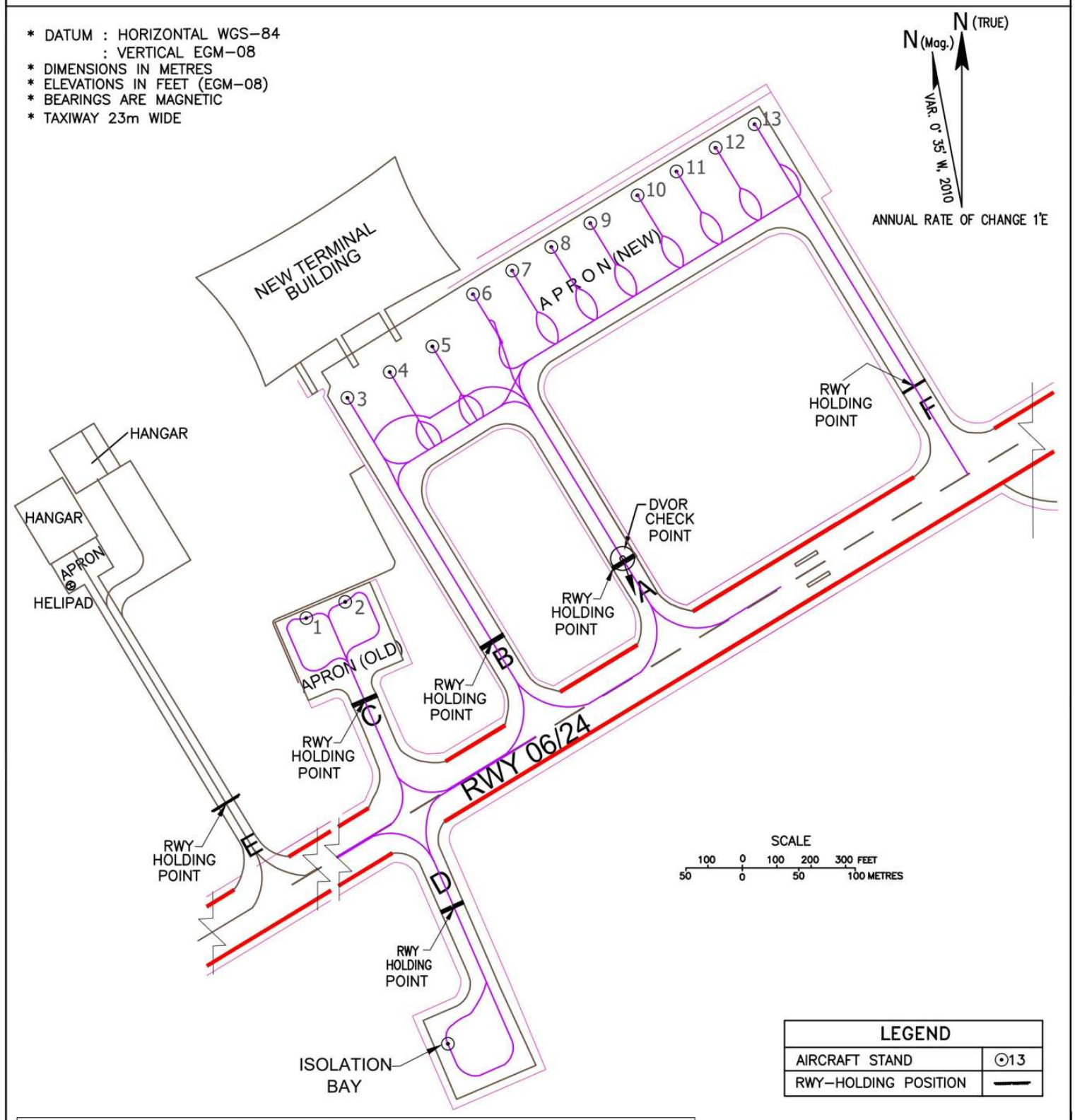
APRON (OLD) ELEV 1034ft.
APRON (NEW) ELEV 1039ft.

TWR 124.75
BACK-UP 124.30

RAIPUR, INDIA

RAIPUR AIRPORT

* DATUM : HORIZONTAL WGS–84
: VERTICAL EGM–08
* DIMENSIONS IN METRES
* ELEVATIONS IN FEET (EGM–08)
* BEARINGS ARE MAGNETIC
* TAXIWAY 23m WIDE



LEGEND	
AIRCRAFT STAND	⊙13
RWY–HOLDING POSITION	—

PARKING DETAIL AT RAIPUR AIRPORT

STAND NO.	LATITUDE	LONGITUDE	ELEV.(FT)	PCN	SUITABILITY	STATUS OF AIRCRAFT
APRON (OLD)						
1	21°10'59.72038" N	081°44'24.53240" E	1034	38/F/B/W/T	UPTO F2TH	POWER IN/POWER OUT
2	21°11'00.18706" N	081°44'25.73185" E	1034	38/F/B/W/T	UPTO F2TH	POWER IN/POWER OUT
APRON (NEW)						
3	21°11'06.06487" N	081°44'25.82947" E	1036	64/R/B/W/T	UPTO A320-321	POWER IN/PUSH BACK
4	21°11'06.80352" N	081°44'27.13799" E	1037	64/R/B/W/T	UPTO A320-321	POWER IN/PUSH BACK
5	21°11'07.54040" N	081°44'28.44554" E	1038	64/R/B/W/T	UPTO A320-321	POWER IN/PUSH BACK
6	21°11'09.04113" N	081°44'29.70377" E	1039	64/R/B/W/T	UPTO A320-321	POWER IN/PUSH BACK
7	21°11'09.71524" N	081°44'30.91062" E	1039	66/R/B/W/T	UPTO A320-321	POWER IN/PUSH BACK
8	21°11'10.39396" N	081°44'32.11411" E	1039	66/R/B/W/T	UPTO A320	POWER IN/PUSH BACK
9	21°11'11.07544" N	081°44'33.31852" E	1038	66/R/B/W/T	A320/A321	POWER IN/PUSH BACK
10	21°11'11.87144" N	081°44'34.76742" E	1037	78/R/B/W/T	A320/A321	POWER IN/PUSH BACK
11	21°11'12.54983" N	081°44'35.97163" E	1037	78/R/B/W/T	A320/A321	POWER IN/PUSH BACK
12	21°11'13.22777" N	081°44'37.17578" E	1037	78/R/B/W/T	A320/A321	POWER IN/PUSH BACK
13	21°11'13.90542" N	081°44'38.37993" E	1036	78/R/B/W/T	A320/A321	POWER IN/PUSH BACK
ISOLATION BAY	21°10'47.45761" N	081°44'28.80679" E	1030	47/R/B/W/T	A320/A321	POWER IN/POWER OUT
HELIPAD	21°10'47.36048" N	081°43'53.65514" E	1013	—	—	—

TWY DETAILS

TWY	WIDTH	PCN
A	23m	64/R/B/W/T
B	23m	64/R/B/W/T
C	23m	64/R/B/W/T
D	23m	64/R/B/W/T
E	23m	47/R/B/W/T
F	23m	78/R/B/W/T

APRON DETAILS

APRON DESIG.	PCN	SURFACE
NEW APRON	64/R/B/W/T	CONCRETE
OLD APRON FLEXI PORTION	38/F/B/W/T	CONCRETE/ ASPHALT
OLD APRON RIGID PORTION	38/R/B/W/T	

DATE OF AERONAUTICAL INFORMATION
JULY, 2022

AIRPORTS AUTHORITY OF INDIA

DRG. NO. AAI–20/PDC/2023, (CARTO)
(UPDATED ON 27.01.26)

Airports Authority of India

AMDT 03/2026

PUBLISHED MAP ATLAS

RPR | VERP-AOCTA-RWY-06

Existing / obstacles | AAI AIM | Original PDF page 1

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INDIA

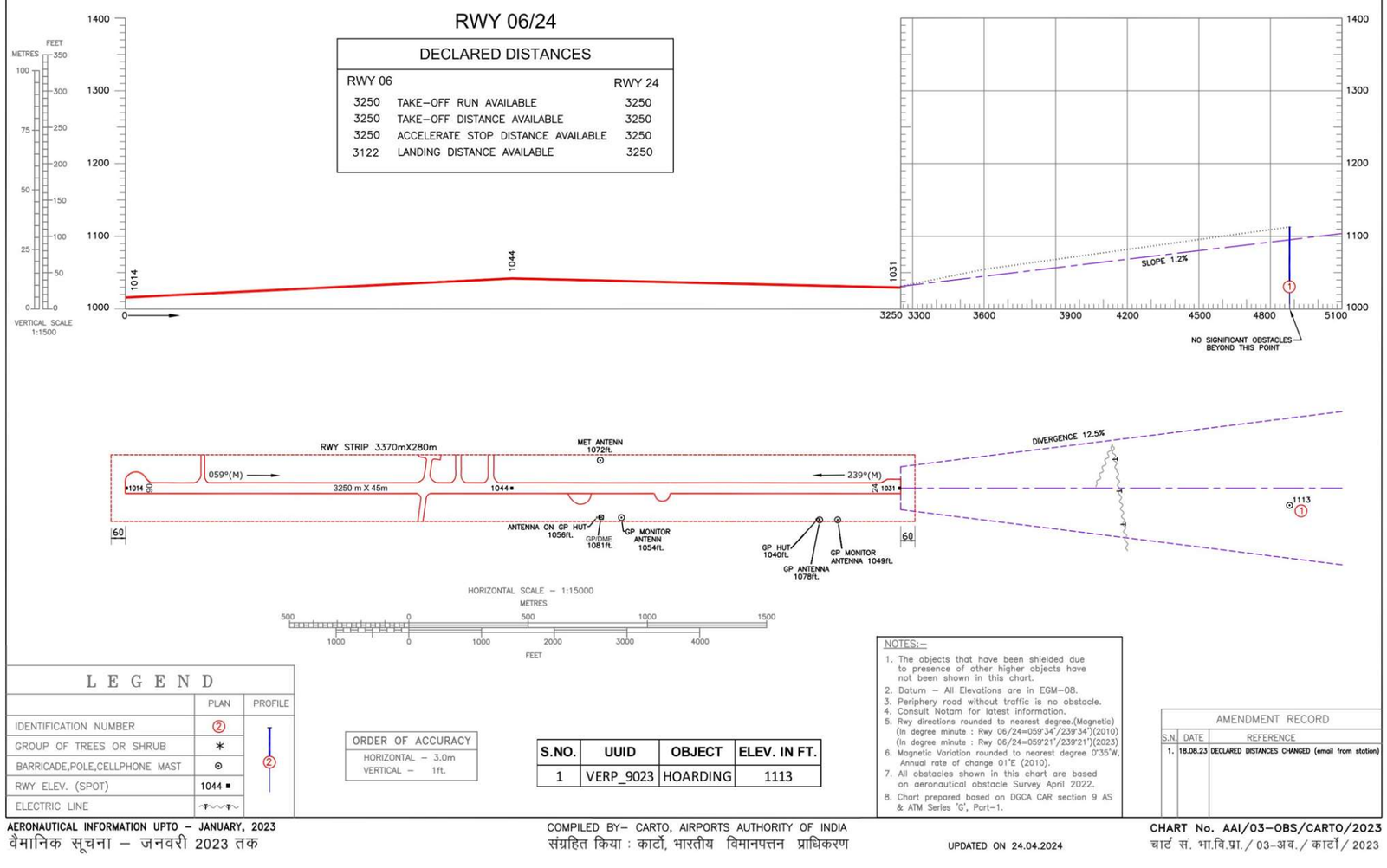
AD 2 VERP 1-601
03 OCT 2024

ELEVATIONS IN FEET AND EGM 08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

INDIA / RAIPUR
RAIPUR AIRPORT / RWY 06

MAGNETIC VARIATION 1°W (2010)



LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	②	
GROUP OF TREES OR SHRUB	*	
BARRICADE,POLE,CELLPHONE MAST	⊙	
RWY ELEV. (SPOT)	1044 ■	
ELECTRIC LINE		

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

S.NO.	UUID	OBJECT	ELEV. IN FT.
1	VERP_9023	HOARDING	1113

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–08.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic) (In degree minute : Rwy 06/24=059°34'/239°34')(2010) (In degree minute : Rwy 06/24=059°21'/239°21')(2023)
6. Magnetic Variation rounded to nearest degree 0°35'W, Annual rate of change 01'E (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey April 2022.
8. Chart prepared based on DGCA CAR section 9 AS & ATM Series 'G', Part–1.

AMENDMENT RECORD

S.N.	DATE	REFERENCE
1.	18.08.23	DECLARED DISTANCES CHANGED (email from station)

AERONAUTICAL INFORMATION UPTO – JANUARY, 2023
वैमानिक सूचना – जनवरी 2023 तक

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA
संग्रहित किया : कार्टो, भारतीय विमानपत्तन प्राधिकरण

UPDATED ON 24.04.2024

CHART No. AAI/03–OBS/CARTO/2023
चार्ट सं. भा.वि.प्रा./03–अव./कार्टो/2023

Airports Authority of India

AMDT 07/2024

PUBLISHED MAP ATLAS

RPR | VERP-AOCTA-RWY-24

Existing / obstacles | AAI AIM | Original PDF page 1

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AIP
INDIA

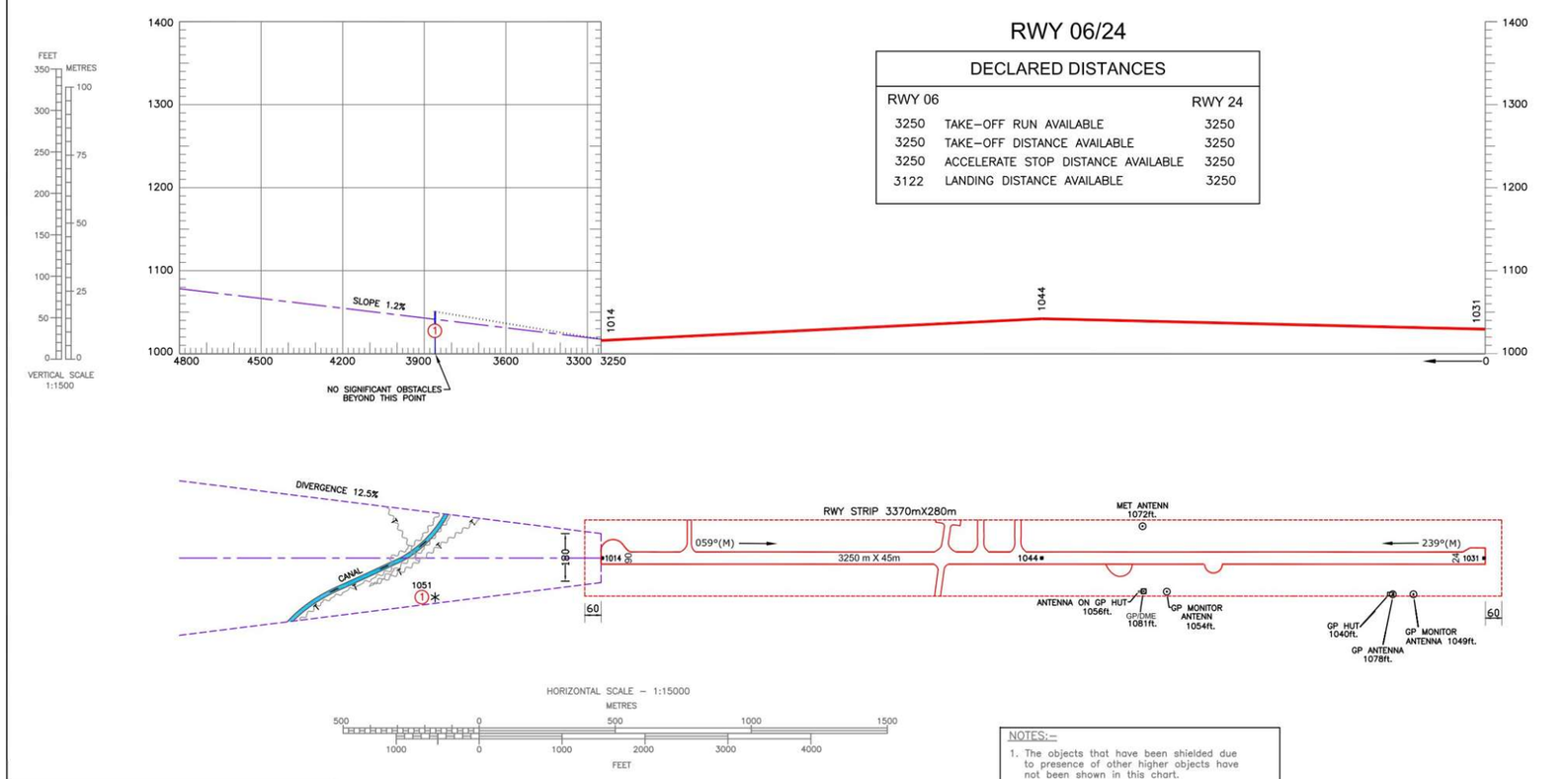
AD 2 VERP 1-603
03 OCT 2024

ELEVATIONS IN FEET AND EGM 08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

INDIA / RAIPUR
RAIPUR AIRPORT / RWY 24

MAGNETIC VARIATION 1°W (2010)



RWY 06/24

DECLARED DISTANCES

RWY 06		RWY 24
3250	TAKE–OFF RUN AVAILABLE	3250
3250	TAKE–OFF DISTANCE AVAILABLE	3250
3250	ACCELERATE STOP DISTANCE AVAILABLE	3250
3122	LANDING DISTANCE AVAILABLE	3250

LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
GROUP OF TREES OR SHRUB	*	
RWY ELEV. (SPOT)	1044 ■	
ELECTRIC LINE		

ORDER OF ACCURACY

HORIZONTAL –	3.0m
VERTICAL –	1ft.

S.NO.	UUID	OBJECT	ELEV.IN FT.
1	VERP_6025	GROUP OF TREE	1051

NOTES:–

1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–08.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic)
   (In degree minute : Rwy 06/24=059°34'/239°34')(2010)
   (In degree minute : Rwy 06/24=059°21'/239°21')(2023)
6. Magnetic Variation rounded to nearest degree 0°35'W, Annual rate of change 01'E (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey April 2022.
8. Chart prepared based on DGCA CAR section 9 AS & ATM Series 'G', Part–1.

AMENDMENT RECORD

S.N.	DATE	REFERENCE
1.	18.08.23	DECLARED DISTANCES CHANGED (email from station)

AERONAUTICAL INFORMATION UPTO – JANUARY, 2023
वैमानिक सूचना – जनवरी 2023 तक

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA
संग्रहित किया : कार्टो, भारतीय विमानपत्तन प्राधिकरण

UPDATED ON 24.04.2024

CHART No. AAI/04–OBS/CARTO/2023
चार्ट सं. भा.वि.प्रा./04–अव./कार्टो/2023

Airports Authority of India

AMDT 07/2024

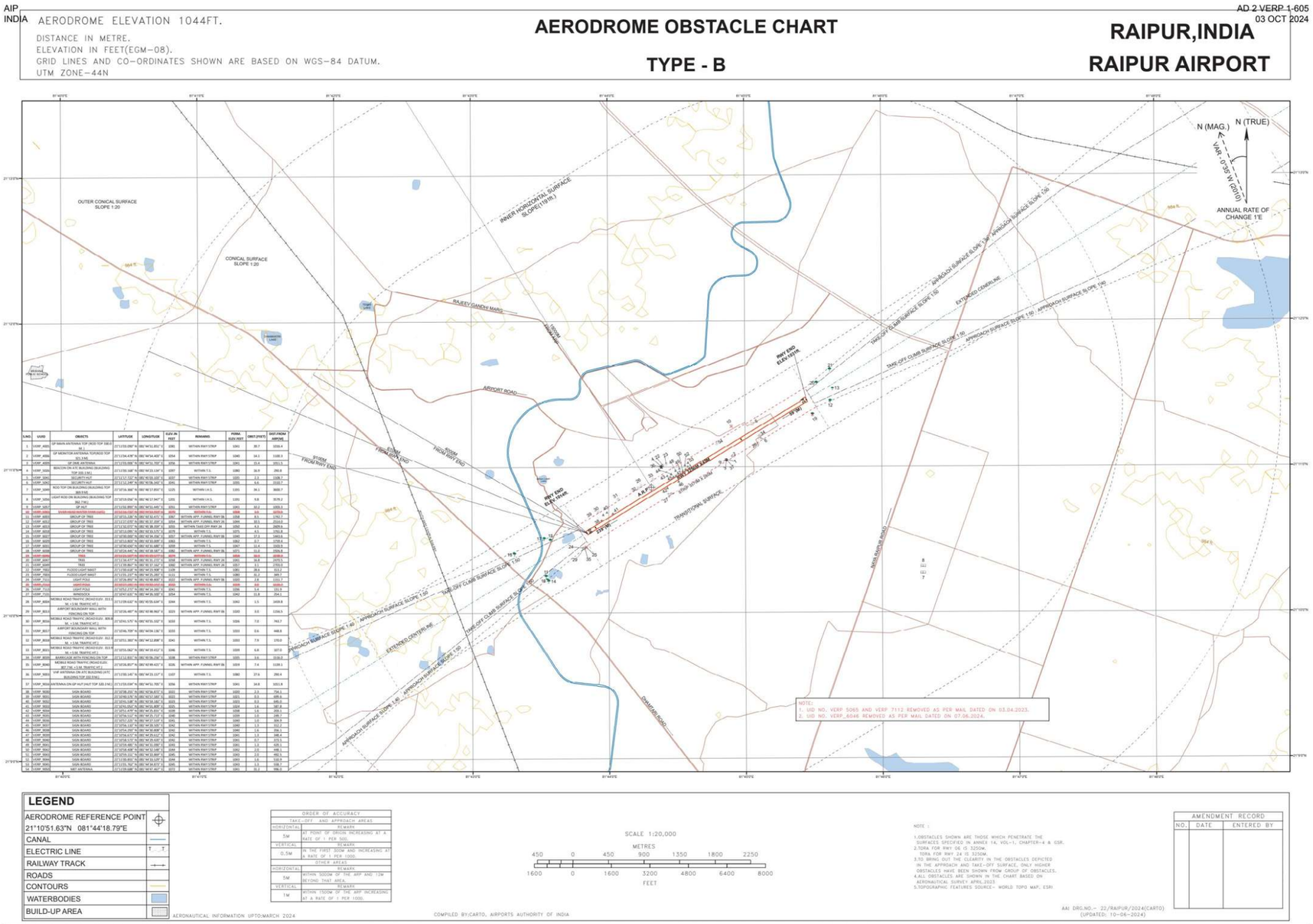
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RPR | VERP-AOCTB

Existing / obstacles | AAI AIM | Original PDF page 1

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IXU | VAAU-ADC

Existing / obstacles | AAI AIM | Original PDF page 1

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AERODROME CHART 19°51'51.82"N 075°23'51.22"E ELEV.1917 Ft

TWR.122.300
BACK-UP 118.350

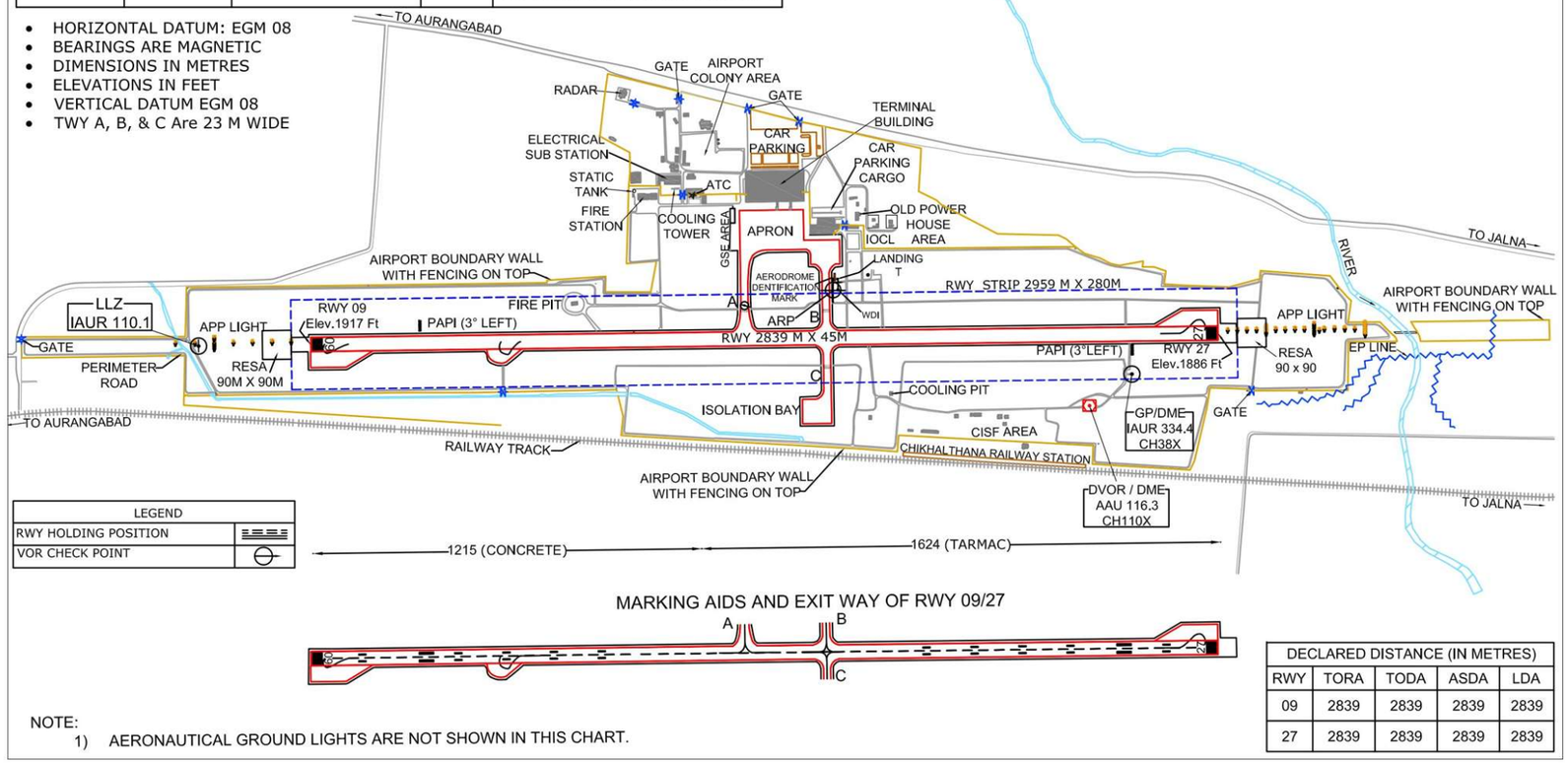
AURANGABAD / INDIA
AURANGABAD AIRPORT

RWY	DIRECTION	THR. COORDINATES	THR. ELEV.	BEARING STRENGTH
09	090°	19°51'46.44"N 075°22'55.03"E	1917 Ft	RWY 27/09 (0-700M) 104/F/B/W/T RWY 27/09 (700-1830M) 84/F/B/W/T RWY 27/09 (1830-2286M) 68/R/B/W/T RWY 27/09 (2286-2839M) 71/R/B/W/T
27	270°	19°51'47.37"N 075°24'32.59"E	1886 Ft	RWY 27/09 (0-700M) 104/F/B/W/T RWY 27/09 (700-1830M) 84/F/B/W/T RWY 27/09 (1830-2286M) 68/R/B/W/T RWY 27/09 (2286-2839M) 71/R/B/W/T

- HORIZONTAL DATUM: EGM 08
- BEARINGS ARE MAGNETIC
- DIMENSIONS IN METRES
- ELEVATIONS IN FEET
- VERTICAL DATUM EGM 08
- TWY A, B, & C Are 23 M WIDE

SCALE
Feet 0 100 500 1000 2000 3000
Meter 0 100 500 1000

N (True)
N (Mag)
VAR 0.40W(2010)
ANNUAL RATE OF CHANGE 02'E



LEGEND	
RWY HOLDING POSITION	
VOR CHECK POINT	

MARKING AIDS AND EXIT WAY OF RWY 09/27

DECLARED DISTANCE (IN METRES)				
RWY	TORA	TODA	ASDA	LDA
09	2839	2839	2839	2839
27	2839	2839	2839	2839

NOTE:
1) AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.

DATE OF AERONAUTICAL INFORMATION MAY 2023.

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Airports Authority of India

RT/AV/AURANGABAD AIRPORT / AERODROME CHART/65-23
AMDT 02/2024

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IXU | VAAU-PDC

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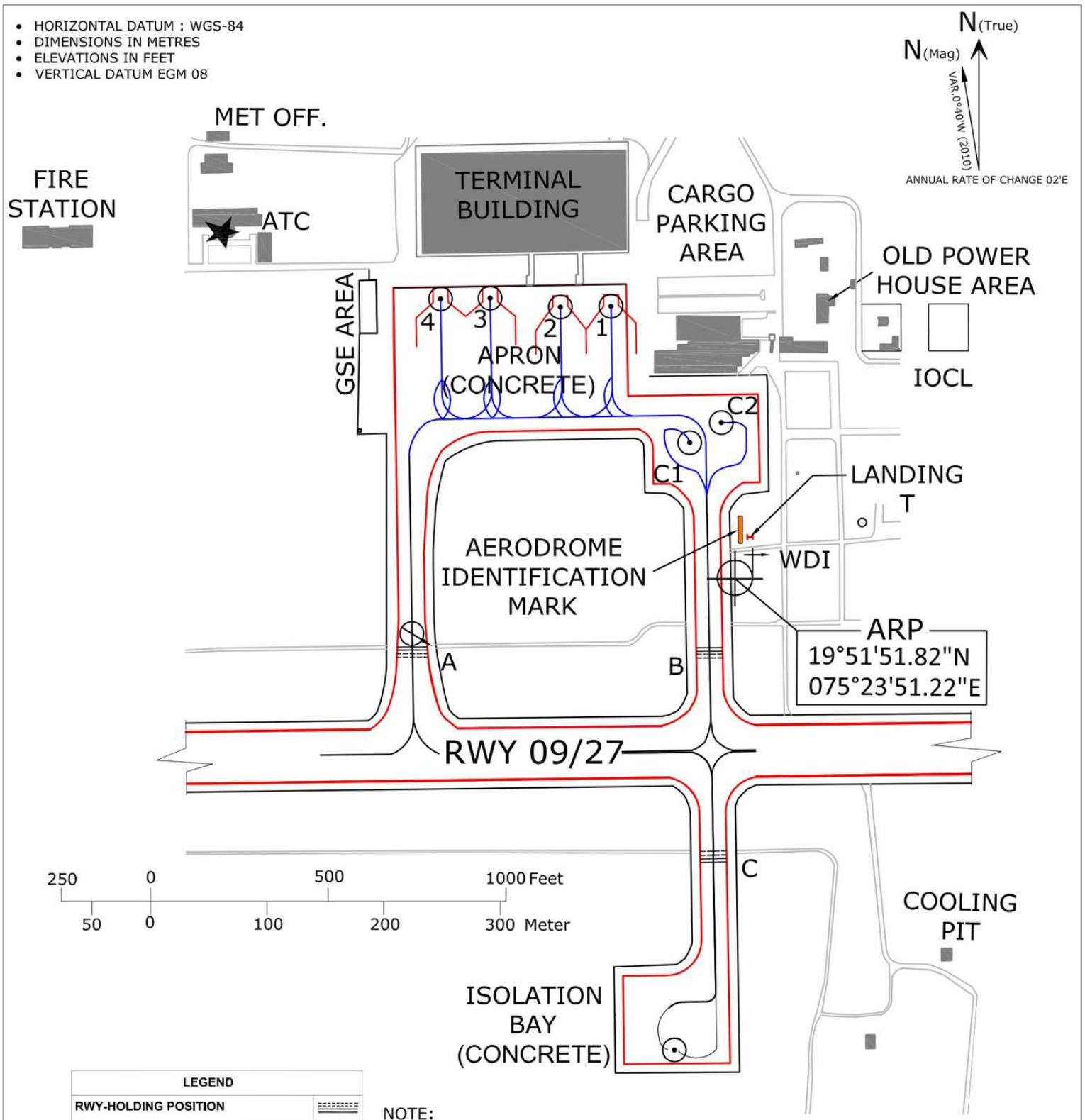
AIRCRAFT PARKING/ DOCKING CHART

APRON ELEV. 1921 FT

TWR 122.3
BACK-UP 118.350

AURANGABAD/INDIA
AURANGABAD AIRPORT

- HORIZONTAL DATUM : WGS-84
- DIMENSIONS IN METRES
- ELEVATIONS IN FEET
- VERTICAL DATUM EGM 08



LEGEND	
RWY-HOLDING POSITION	
AIRCRAFT STAND	04
VOR CHECK POINT	

NOTE:
- AERONAUTICAL GROUND LIGHTS ARE NOT SHOW IN THIS CHART.

APRON

BAY NO.	WGS CO-ORDINATES FOR AIRCARFT STAND		PCN	SUITABILTIY	STATUS	ELVE.
Parking Bay 1	19°51'59.423"N	075°23'47.587"E	63/R/B/W/T	A322/B739	Power In / Push Back	1919 Ft
Parking Bay 2	19°51'59.404"N	075°23'46.096"E	63/R/B/W/T	A322/B739 & B767	Power In / Push Back	1920 Ft
Parking Bay 3	19°51'59.658"N	075°23'44.029"E	63/R/B/W/T	A322/B739	Power In / Push Back	1921 Ft
Parking Bay 4	19°51'59.640"N	075°23'42.568"E	63/R/B/W/T	A322/B739	Power In / Push Back	1921 Ft
Parking Bay C1	19°51'55.614"N	075°23'49.897"E	45/R/C/W/T	AT72	Power In / Push Back	1915 Ft
Parking Bay C2	19°51'56.172"N	075°23'50.832"E	45/R/C/W/T	AT72	Power In / Push Back	1916 Ft
Isolation Bay	19°51'38.679"N	075°23'49.404"E	71/R/B/W/T	-	-	1898 Ft

TAXIWAY	PCN	WIDTH
A	63/R/B/W/T	23 M
B	52/F/C/W/T	23 M
C	71/R/B/W/T	23 M

DATE OF AERONAUTICAL INFORMATION MAY 2023.

Airports Authority of India.

RT/AV/AURANGABAD AIRPORT / PDC/66-23
AMDT 02/2024

Airports Authority of India

PUBLISHED MAP ATLAS

IXU | VAAU-AOCTA-RWY-09

Existing / obstacles | AAI AIM | Original PDF page 1

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ELEVATIONS IN FEET AND EGM 08
ALL OTHER DIMENSIONS IN METERS

AERODROME OBSTACLE CHART

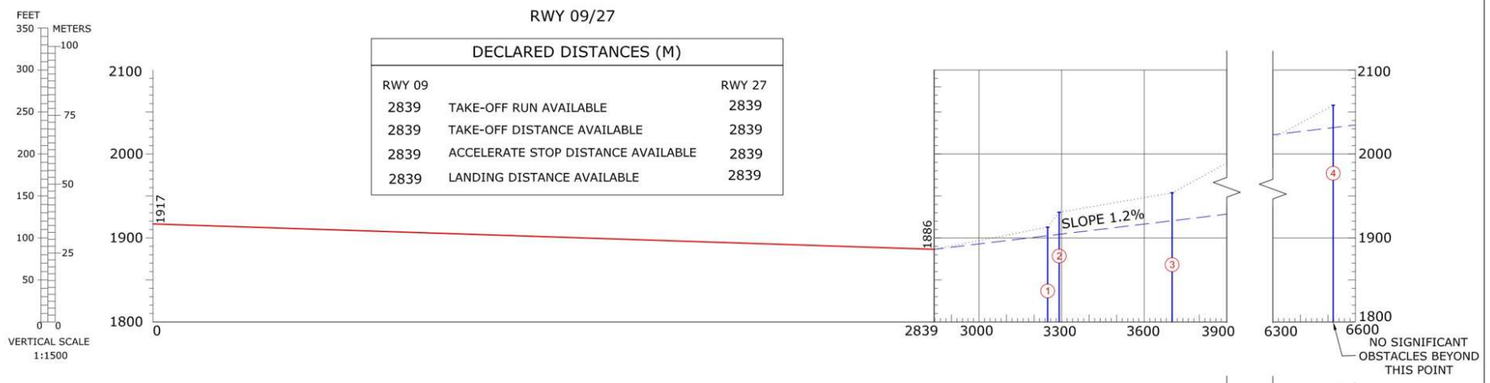
TYPE-A (OPERATING LIMITATIONS)

INDIA / AURANGABAD
AURANGABAD AIRPORT / RWY 09

MAGNETIC VARIATION 1°W, (2010)

RWY 09/27

DECLARED DISTANCES (M)		
RWY 09		RWY 27
2839	TAKE-OFF RUN AVAILABLE	2839
2839	TAKE-OFF DISTANCE AVAILABLE	2839
2839	ACCELERATE STOP DISTANCE AVAILABLE	2839
2839	LANDING DISTANCE AVAILABLE	2839



NOTES:-
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart
2. Datum - All Elevations are W.R.T. EGM-2008.
3. Consult NOTAM For Latest Information.
4. RWY Direction rounded to nearest degree (Magnetic)
(In degree/minute :RWY 09/27=90°00'/270°00'), (2010)
(In degree/minute :RWY 09/27=89°45'/269°45'), (2023)
5. Periphery Road with and without traffic is no obstacle.
6. Magnetic variation rounded to nearest degree 0°40'W, Annual rate of change 2'E.
7. All obstacles shown in this chart are based on Aeronautical Obstacle Survey May 2023.
8. Chart prepared based on CAR Section 9, AS & ATM, Series 'G', Part-I, Issue II, Revision 6. Dtd. 17 NOV. 2018.
9. Mag.Declination As Per EPOCH Chart 2010.

L E G E N D	PLAN	PROFILE
Identification Number	①	
Tree	✳	
Mast, Antenna	⊙	
RWY ELEV. (SPOT)	1917■	

ORDER OF ACCURACY
HORIZONTAL - 3.0m
VERTICAL - 1Ft

SR.NO	UUID	OBJECT	ELVE.
1	VAAU_6097	Tree	1913 Ft
2	VAAU_6078	Group of Tree	1931 Ft
3	VAAU_6095	Tree	1954 Ft
4	VAAU_7195	Mast	2058 Ft

AMENDMENT RECORDS		
NO	DATE	REMARKS

AERONAUTICAL INFORMATION UPTO MAY 2023
वैमानिक सूचना मई 2023 तक

COMPILED BY:- AIRPORTS AUTHORITY OF INDIA, CARTO SECTION
संग्रहित किया कार्टो, भारतीय विमानपत्तन प्राधिकरण

CHART NO.- RT/AV/AURANGABAD/DRG/Type A-09/55-23
ड्राइंग नं. आरटी/एवी/औरंगाबाद/ड्राईंग/टाईप ए-09/55-23

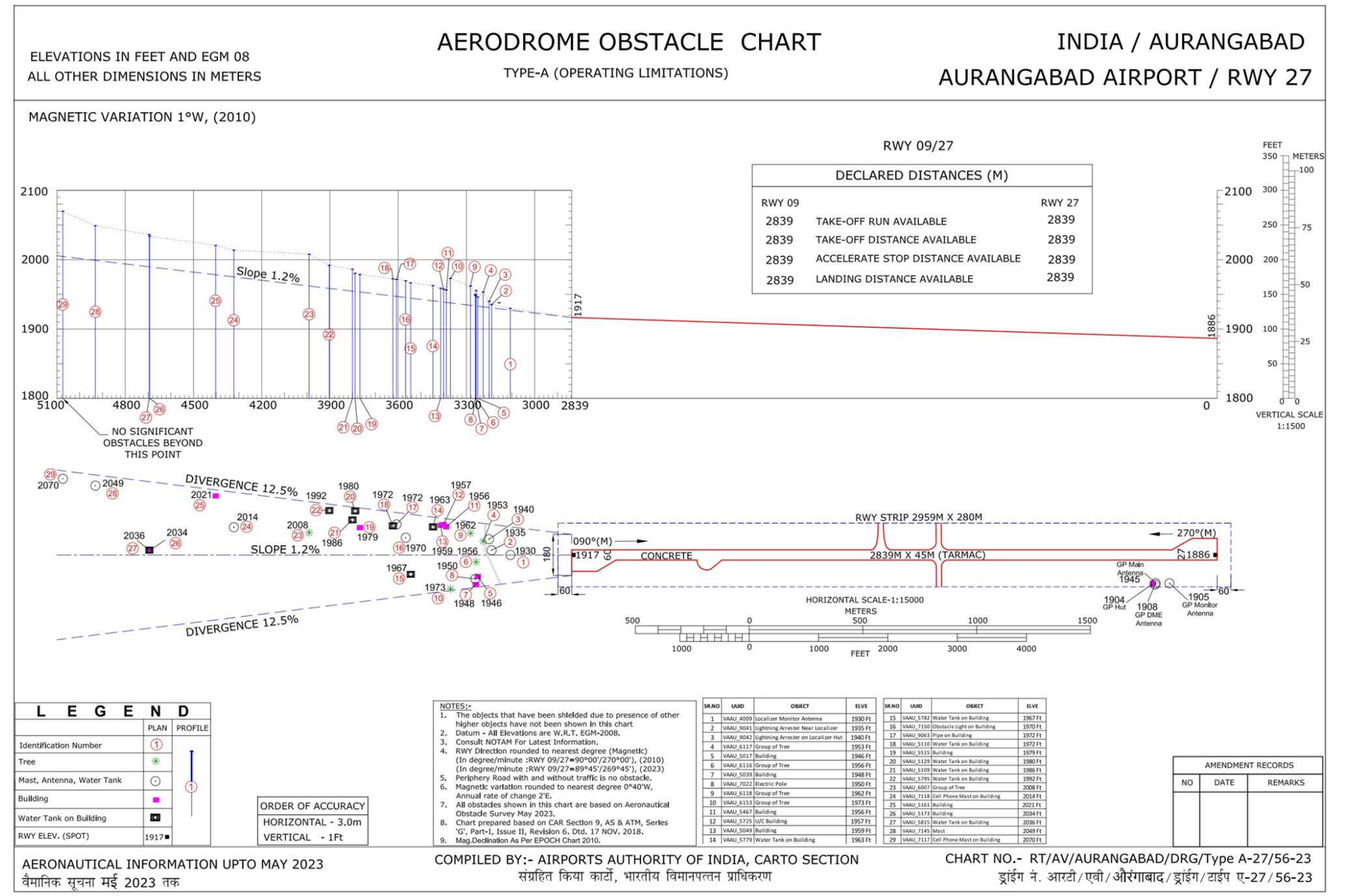
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IXU | VAAU-AOCTA-RWY-27

Existing / obstacles | AAI AIM | Original PDF page 1

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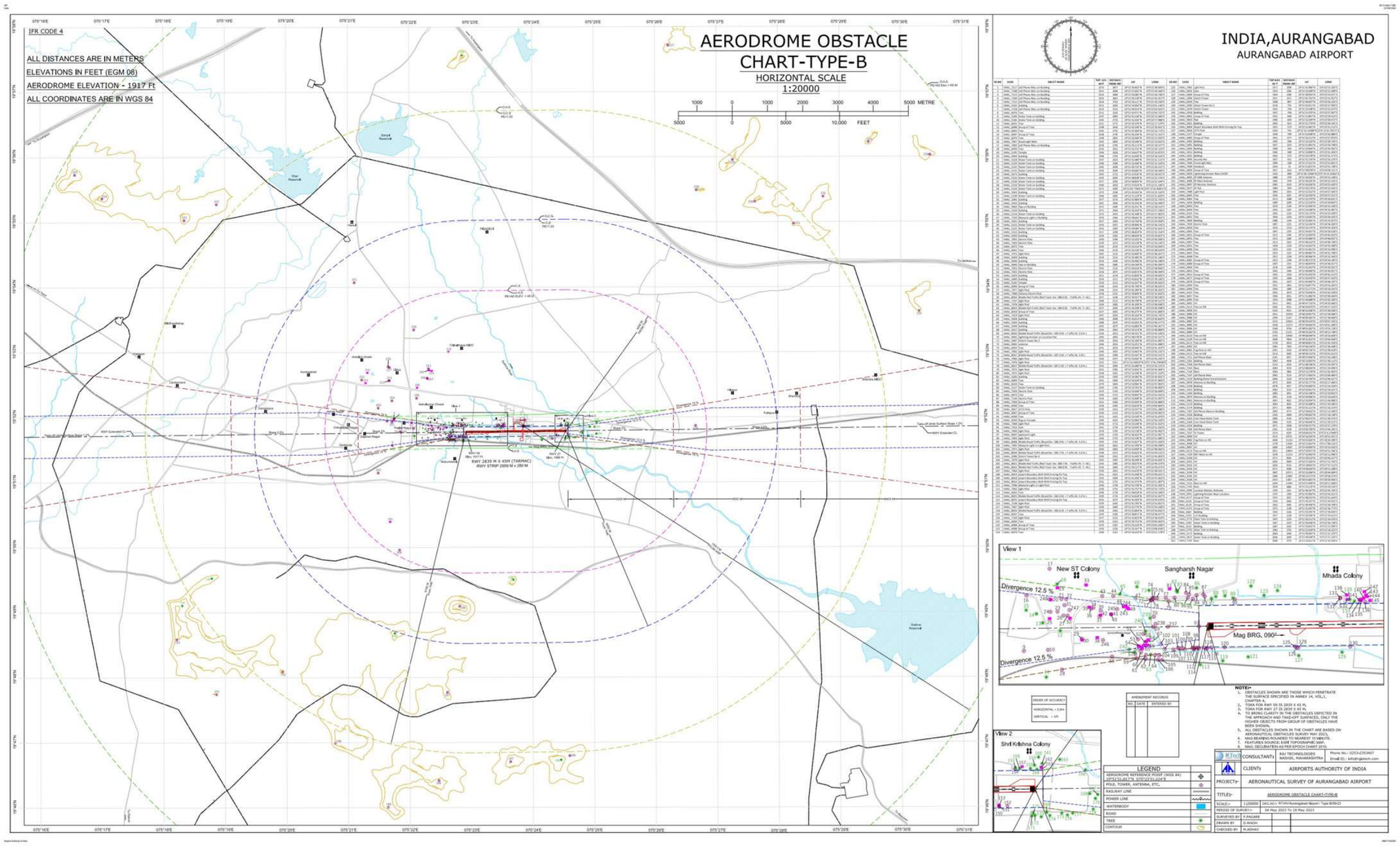
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IXU | VAAU-AOCTB

Existing / obstacles | AAI AIM | Original PDF page 1

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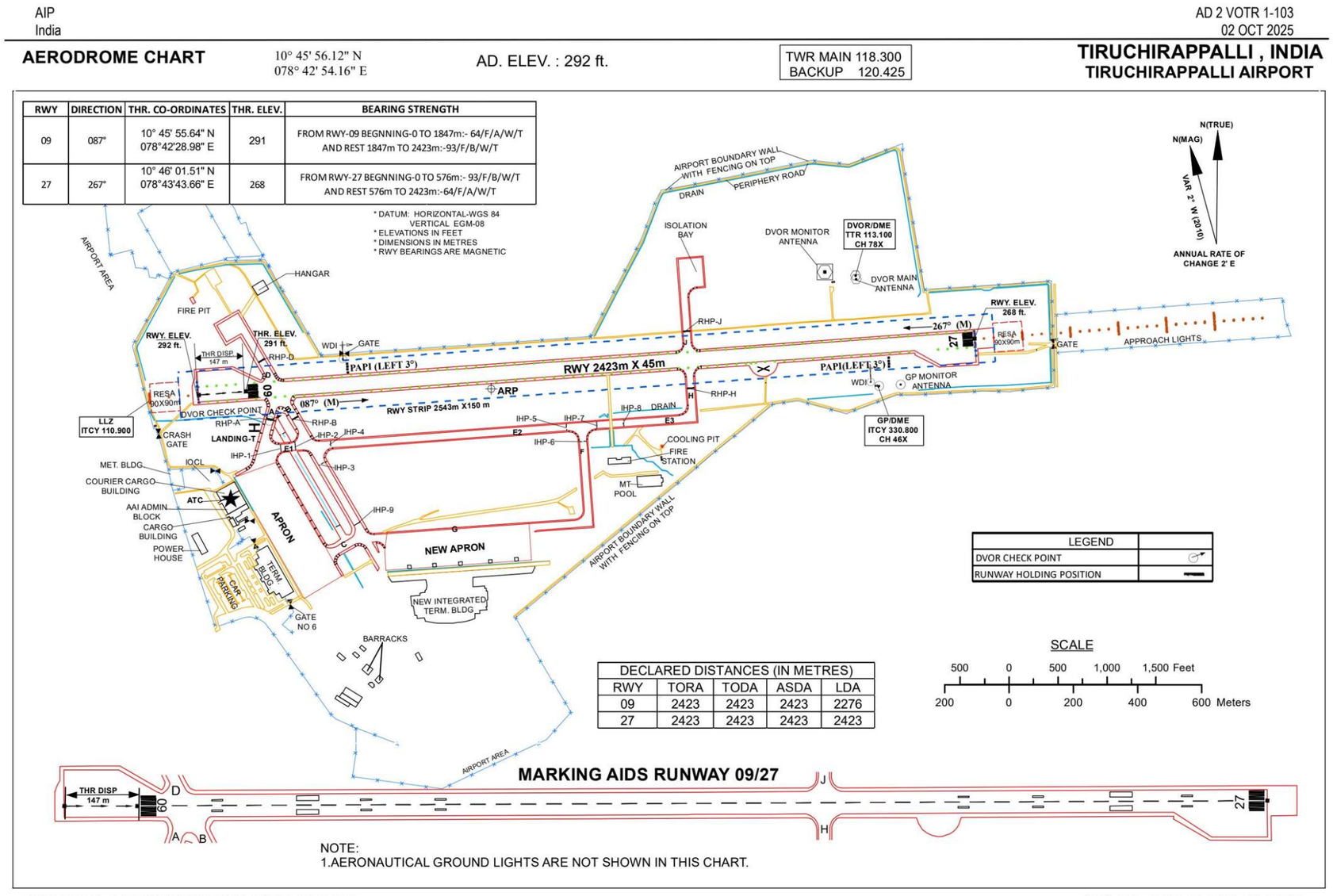
PUBLISHED MAP ATLAS

TRZ | VOTR - ADC

Existing / obstacles | AAI AIM | Original PDF page 1

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Existing / obstacles | AAI AIM | Original PDF page 1

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AIRCRAFT PARKING/ DOCKING CHART

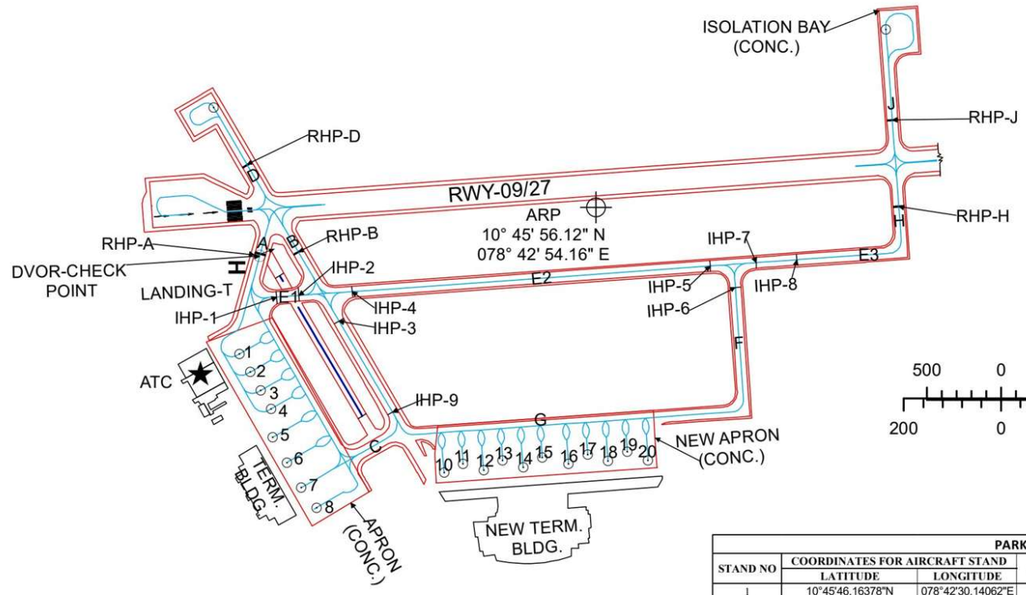
APRON ELEV. 296 ft.

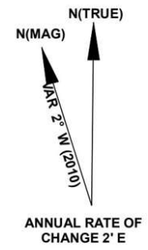
TWR MAIN 118.300
BACKUP 120.425

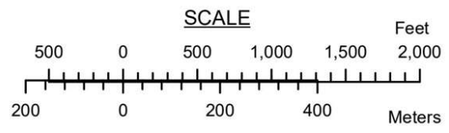
TIRUCHIRAPPALLI , INDIA

TIRUCHIRAPPALLI AIRPORT

* DATUM: HORIZONTAL WGS 84
VERTICAL EGM-08
* ELEVATIONS IN FEET
* DIMENSIONS IN METRES
* RWY BEARINGS ARE MAGNETIC







LEGEND	
AIRCRAFT STAND	⊙ 20
VOR CHECKPOINT	
RUNWAY HOLDING POSITION	

TWY	PCN	WIDTH
A	51/F/B/W/T	23 M
B	55/F/B/W/T	23 M
C	61/F/C/W/T	23 M
D	55/F/B/W/T	23 M
E1	64/F/A/W/T	23 M
E2	87/R/B/W/T	23 M
E3	87/R/B/W/T	23 M
F	87/R/B/W/T	23 M
G	87/R/B/W/T	23 M
H	87/R/B/W/T	23 M
J	64/R/B/W/T	23 M

PARKING DETAILS

STAND NO	COORDINATES FOR AIRCRAFT STAND		SUITABILITY	PCN	ELEV	REMARKS
	LATITUDE	LONGITUDE				
1	10°45'46.16378"N	078°42'30.14062"E	B739, A321	70/R/C/W/T	296	POWER-IN POWER-OUT
2	10°45'44.94357"N	078°42'30.86449"E	B739, A321	70/R/C/W/T	296	POWER-IN POWER-OUT
3	10°45'43.72307"N	078°42'31.59116"E	B739, A321	70/R/C/W/T	295	POWER-IN POWER-OUT
4	10°45'42.50187"N	078°42'32.31720"E	B739, A321	70/R/C/W/T	295	POWER-IN POWER-OUT
5	10°45'40.58792"N	078°42'32.40113"E	B767	84/R/B/W/T	294	POWER-IN PUSH-BACK
6	10°45'38.91787"N	078°42'33.39504"E	B767	84/R/B/W/T	293	POWER-IN PUSH-BACK
7	10°45'37.25202"N	078°42'34.38579"E	B767	84/R/B/W/T	293	POWER-IN PUSH-BACK
8	10°45'35.91115"N	078°42'35.42505"E	A321	68/R/B/W/T	293	POWER-IN PUSH-BACK
10	10°45'38.30980"N	078°42'44.01494"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
11	10°45'38.93888"N	078°42'45.30583"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
12	10°45'38.51652"N	078°42'46.68971"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
13	10°45'39.14809"N	078°42'47.98010"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
14	10°45'38.70832"N	078°42'49.36543"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
15	10°45'39.35644"N	078°42'50.65364"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
16	10°45'38.96239"N	078°42'52.42270"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
17	10°45'39.59357"N	078°42'53.71283"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
18	10°45'39.16930"N	078°42'55.09727"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
19	10°45'39.80192"N	078°42'56.38747"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
20	10°45'39.20933"N	078°42'57.80483"E	A321	87/R/B/W/T	289	POWER-IN PUSH-BACK
ISOLATION	10°46'08.13944"N	078°43'13.65886"E	A321	64/R/B/W/T	275	POWER-IN POWER-OUT

DATE OF AERONAUTICAL INFORMATION NOVEMBER 2024

(UPDATED ON) 09-12-2024

DRG. NO-AAI/31-PDC/2024(CARTO)

PUBLISHED MAP ATLAS

TRZ | VOTR-AOCTA-RWY-09

Existing / obstacles | AAI AIM | Original PDF page 1

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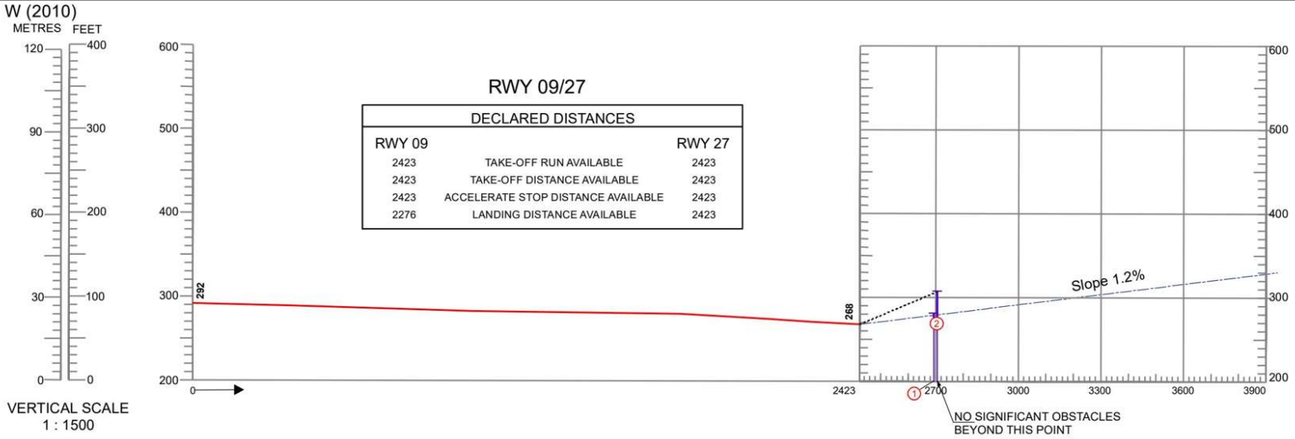
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ELEVATIONS IN FEET AND EGM-08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE - A (OPERATING LIMITATIONS)

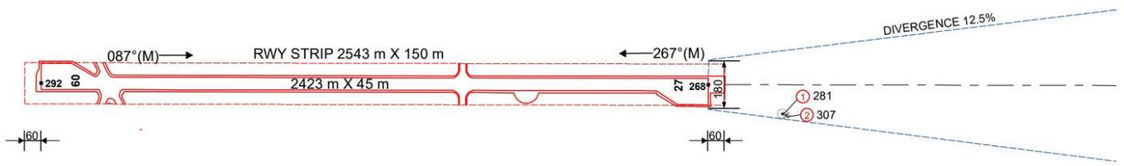
INDIA / TIRUCHIRAPPALLI
TIRUCHIRAPPALLI AIRPORT / RWY 09

MAGNETIC VARIATION 2° 00' W (2010)



RWY 09/27

DECLARED DISTANCES		
RWY 09		RWY 27
2423	TAKE-OFF RUN AVAILABLE	2423
2423	TAKE-OFF DISTANCE AVAILABLE	2423
2423	ACCELERATE STOP DISTANCE AVAILABLE	2423
2276	LANDING DISTANCE AVAILABLE	2423



LEGEND	PLAN	PROFILE
POLE, TOWER, SPIRE, ANTENNA ETC	⊙	
IDENTIFICATION NUMBER	②	
TREE OR SHRUB	✳	

HORIZONTAL SCALE 1 : 15000

440 220 0 440 880 1320 METRES
900 450 0 900 1800 2700 3600 FEET

ORDER OF ACCURACY	
HORIZONTAL	: 3.0 m
VERTICAL	: 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are EGM08.
3. Consult NOTAM for latest information.
taken in this chart
4. RWY direction rounded to nearest degree.(Magnetic)
(In degree minute : RWY 09/27 = 087° 28'/267° 28') (2010)
(In degree minute : RWY 09/27 = 087° 02'/267° 02') (2023)
5. Magnetic Variation rounded to nearest degree 2° W
Annual rate of change 02' E (2010)
6. All obstacles shown in this chart are based on Aeronautical Obstacle Survey of April, 2023
7. Chart Prepared Based on CAR S ection 9 AS & AT M S eries 'G', Part-I

OBSTACLE TABLE APP 27			
SNO	UUID	OBJECT	ELEV.FT.
1	VOTR_7302	Electric Pole	281
2	VOTR_6105	Group of Trees	307

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO -NOVEMBER 2024

UPDATED DATE-09-12-2024

DRG. NO.AAI/35-OBS/CARTO/2024

Airports Authority of India

AMDT 05/2025

PUBLISHED MAP ATLAS

TRZ | VOTR-AOCTA-RWY-27

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AERODROME OBSTACLE CHART

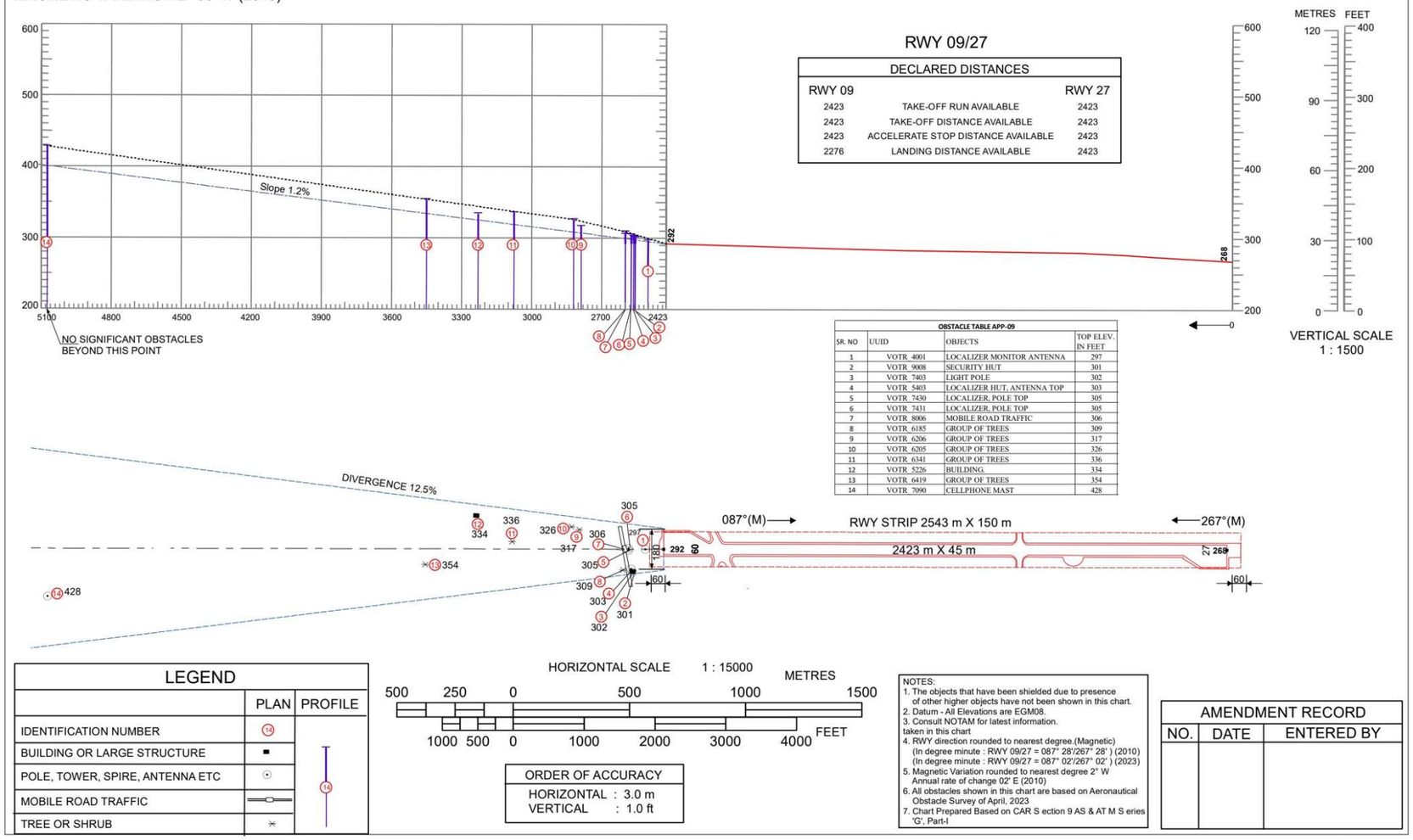
TYPE - A (OPERATING LIMITATIONS)

ELEVATIONS IN FEET AND EGM-08
ALL OTHER DIMENSIONS IN METRES

MAGNETIC VARIATION 2° 00' W (2010)

INDIA / TIRUCHIRAPPALLI

TIRUCHIRAPPALLI AIRPORT / RWY 27



RWY 09/27

DECLARED DISTANCES

RWY 09		RWY 27
2423	TAKE-OFF RUN AVAILABLE	2423
2423	TAKE-OFF DISTANCE AVAILABLE	2423
2423	ACCELERATE STOP DISTANCE AVAILABLE	2423
2276	LANDING DISTANCE AVAILABLE	2423

OBSTACLE TABLE APP-09

SR. NO	UUID	OBJECTS	TOP ELEV. IN FEET
1	VOTR_4001	LOCALIZER MONITOR ANTENNA	297
2	VOTR_9008	SECURITY HUT	301
3	VOTR_7403	LIGHT POLE	302
4	VOTR_5403	LOCALIZER HUT, ANTENNA TOP	303
5	VOTR_7430	LOCALIZER, POLE TOP	305
6	VOTR_7431	LOCALIZER, POLE TOP	305
7	VOTR_8006	MOBILE ROAD TRAFFIC	306
8	VOTR_6185	GROUP OF TREES	309
9	VOTR_6206	GROUP OF TREES	317
10	VOTR_6205	GROUP OF TREES	326
11	VOTR_6341	GROUP OF TREES	336
12	VOTR_5226	BUILDING	334
13	VOTR_6419	GROUP OF TREES	354
14	VOTR_7090	CELLPHONE MAST	428

LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	14	
BUILDING OR LARGE STRUCTURE	■	
POLE, TOWER, SPIRE, ANTENNA ETC	⊙	
MOBILE ROAD TRAFFIC	═	
TREE OR SHRUB	✳	

ORDER OF ACCURACY

HORIZONTAL : 3.0 m
VERTICAL : 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are EGM08.
3. Consult NOTAM for latest information. taken in this chart
4. RWY direction rounded to nearest degree.(Magnetic) (In degree minute : RWY 09/27 = 087° 28'/267° 28') (2010) (In degree minute : RWY 09/27 = 087° 02'/267° 02') (2023)
5. Magnetic Variation rounded to nearest degree 2° W Annual rate of change 02' E (2010)
6. All obstacles shown in this chart are based on Aeronautical Obstacle Survey of April, 2023
7. Chart Prepared Based on CAR S ection 9 AS & AT M S eries 'G', Part-I

AMENDMENT RECORD

NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO -NOVERMBER 2024

(UPDATED ON- 09/12/2024)

DRG. NO.AAI/36-OBS/CARTO/2024

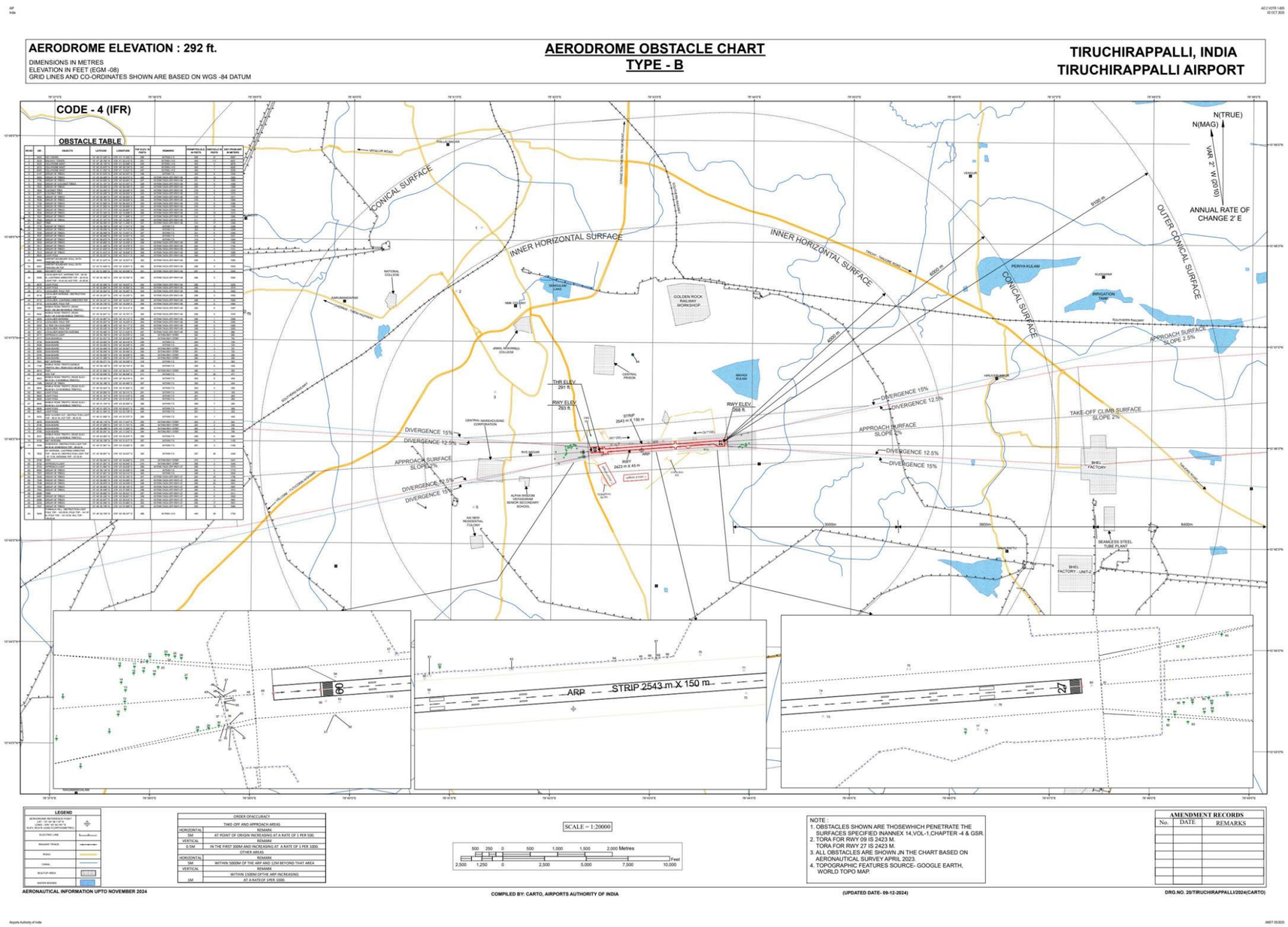
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TRZ | VOTR-AOCTB

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TIR | VOTP-ADC

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AIP
India

AD 2 VOTP 1-101
07 AUG 2025

AERODROME CHART

13° 37' 58.67" N
079° 32' 30.87" E

AD. ELEV. : 366 ft.

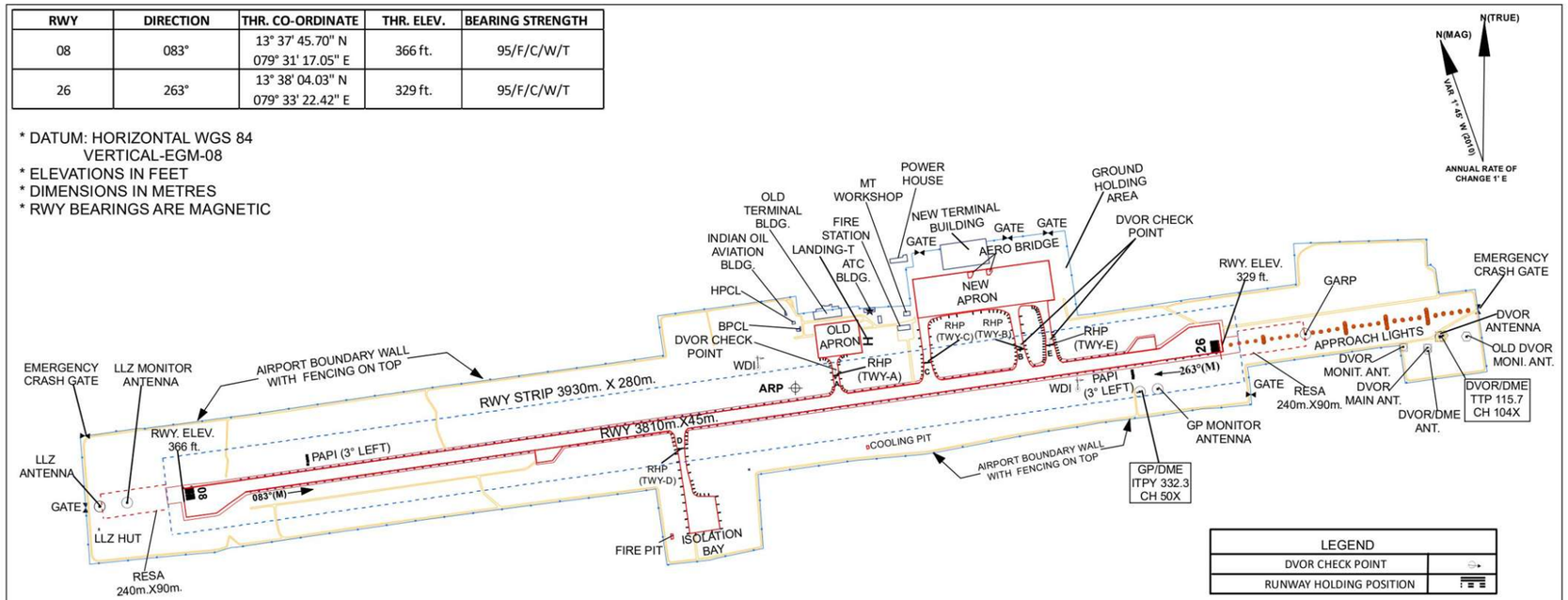
TWR MAIN 119.000
BACKUP 124.300

TIRUPATI, INDIA

TIRUPATI AIRPORT

RWY	DIRECTION	THR. CO-ORDINATE	THR. ELEV.	BEARING STRENGTH
08	083°	13° 37' 45.70" N 079° 31' 17.05" E	366 ft.	95/F/C/W/T
26	263°	13° 38' 04.03" N 079° 33' 22.42" E	329 ft.	95/F/C/W/T

* DATUM: HORIZONTAL WGS 84
VERTICAL-EGM-08
* ELEVATIONS IN FEET
* DIMENSIONS IN METRES
* RWY BEARINGS ARE MAGNETIC



LEGEND	
DVOR CHECK POINT	
RUNWAY HOLDING POSITION	

SCALE
500 250 0 500 1,000 1,500 Feet
200 100 0 200 400 600 Meters

DECLARED DISTANCES (IN METERS)					
RWY	TORA	TODA	ASDA	LDA	NOTAM No.
08	3810	3810	3810	3810	
26	3810	3810	3810	3810	

MARKING AIDS RUNWAY 08/26



NOTE:
1.AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.

DATE OF AERONAUTICAL INFORMATION UPTO OCTOBER 2024

(UPDATED ON-09-01-2025)

DRG. NO-AAI/28-ADM/2024(CARTO)

Airports Authority of India

AMDT 04/2025

PUBLISHED MAP ATLAS

TIR | VOTP-PDC

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AIP
India

AD 2 VOTP 1-301
27 NOV 2025

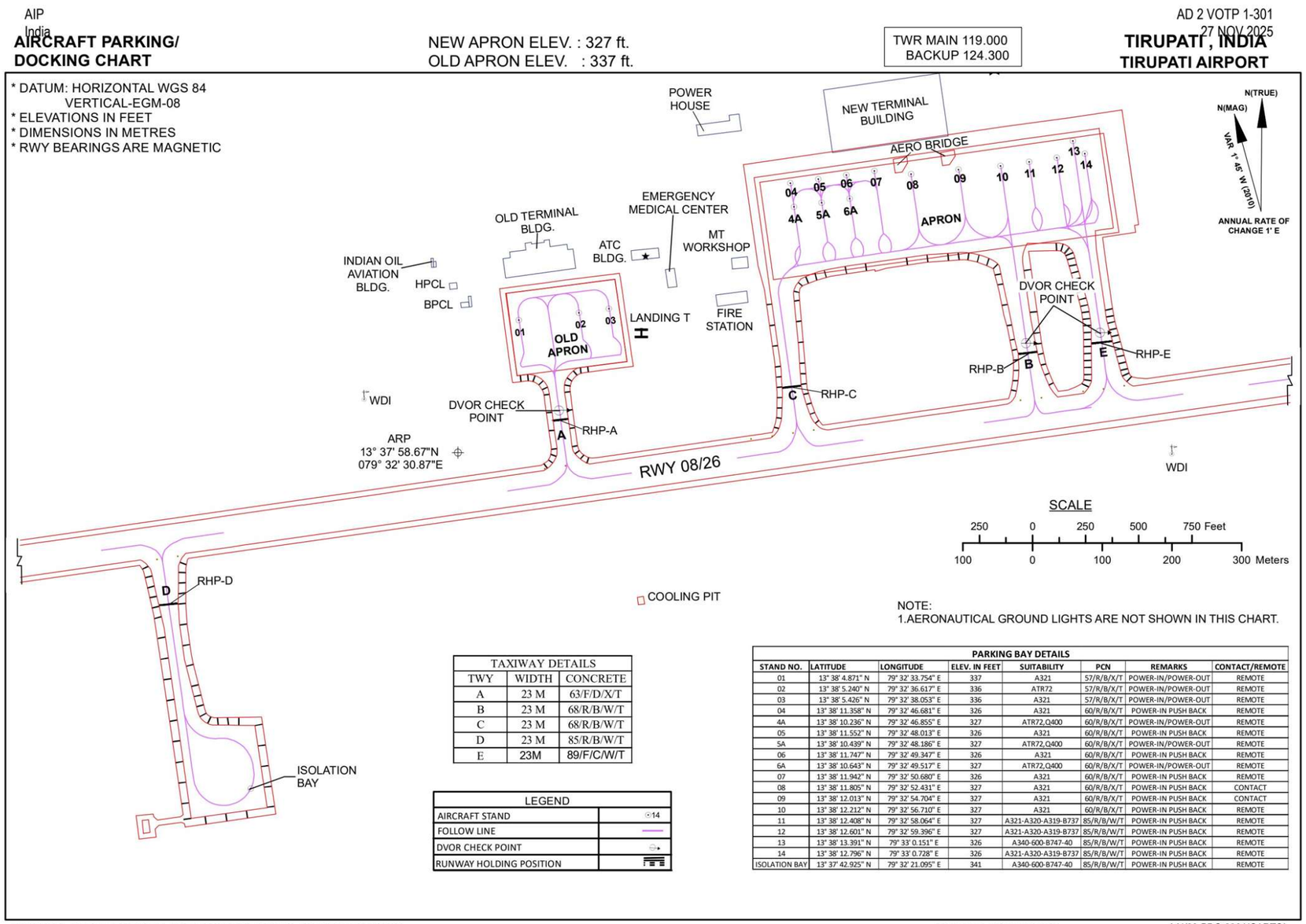
AIRCRAFT PARKING/ DOCKING CHART

NEW APRON ELEV. : 327 ft.
OLD APRON ELEV. : 337 ft.

TWR MAIN 119.000
BACKUP 124.300

TIRUPATI, INDIA
TIRUPATI AIRPORT

* DATUM: HORIZONTAL WGS 84
VERTICAL-EGM-08
* ELEVATIONS IN FEET
* DIMENSIONS IN METRES
* RWY BEARINGS ARE MAGNETIC



NOTE:
1.AERONAUTICAL GROUND LIGHTS ARE NOT SHOWN IN THIS CHART.

TAXIWAY DETAILS		
TWY	WIDTH	CONCRETE
A	23 M	63/F/D/X/T
B	23 M	68/R/B/W/T
C	23 M	68/R/B/W/T
D	23 M	85/R/B/W/T
E	23M	89/F/C/W/T

LEGEND	
AIRCRAFT STAND	14
FOLLOW LINE	
DVOR CHECK POINT	
RUNWAY HOLDING POSITION	

PARKING BAY DETAILS

STAND NO.	LATITUDE	LONGITUDE	ELEV. IN FEET	SUITABILITY	PCN	REMARKS	CONTACT/REMOTE
01	13° 38' 4.871" N	79° 32' 33.754" E	337	A321	57/R/B/X/T	POWER-IN/POWER-OUT	REMOTE
02	13° 38' 5.240" N	79° 32' 36.617" E	336	ATR72	57/R/B/X/T	POWER-IN/POWER-OUT	REMOTE
03	13° 38' 5.426" N	79° 32' 38.053" E	336	A321	57/R/B/X/T	POWER-IN/POWER-OUT	REMOTE
04	13° 38' 11.358" N	79° 32' 46.681" E	326	A321	60/R/B/X/T	POWER-IN PUSH BACK	REMOTE
4A	13° 38' 10.236" N	79° 32' 46.855" E	327	ATR72,Q400	60/R/B/X/T	POWER-IN/POWER-OUT	REMOTE
05	13° 38' 11.552" N	79° 32' 48.013" E	326	A321	60/R/B/X/T	POWER-IN PUSH BACK	REMOTE
5A	13° 38' 10.439" N	79° 32' 48.186" E	327	ATR72,Q400	60/R/B/X/T	POWER-IN/POWER-OUT	REMOTE
06	13° 38' 11.747" N	79° 32' 49.347" E	326	A321	60/R/B/X/T	POWER-IN PUSH BACK	REMOTE
6A	13° 38' 10.643" N	79° 32' 49.517" E	327	ATR72,Q400	60/R/B/X/T	POWER-IN/POWER-OUT	REMOTE
07	13° 38' 11.942" N	79° 32' 50.680" E	326	A321	60/R/B/X/T	POWER-IN PUSH BACK	REMOTE
08	13° 38' 11.805" N	79° 32' 52.431" E	327	A321	60/R/B/X/T	POWER-IN PUSH BACK	CONTACT
09	13° 38' 12.013" N	79° 32' 54.704" E	327	A321	60/R/B/X/T	POWER-IN PUSH BACK	CONTACT
10	13° 38' 12.212" N	79° 32' 56.710" E	327	A321	60/R/B/X/T	POWER-IN PUSH BACK	REMOTE
11	13° 38' 12.408" N	79° 32' 58.064" E	327	A321-A320-A319-B737	85/R/B/W/T	POWER-IN PUSH BACK	REMOTE
12	13° 38' 12.601" N	79° 32' 59.396" E	327	A321-A320-A319-B737	85/R/B/W/T	POWER-IN PUSH BACK	REMOTE
13	13° 38' 13.391" N	79° 33' 0.151" E	326	A340-600-B747-40	85/R/B/W/T	POWER-IN PUSH BACK	REMOTE
14	13° 38' 12.796" N	79° 33' 0.728" E	326	A321-A320-A319-B737	85/R/B/W/T	POWER-IN PUSH BACK	REMOTE
ISOLATION BAY	13° 37' 42.925" N	79° 32' 21.095" E	341	A340-600-B747-40	85/R/B/W/T	POWER-IN PUSH BACK	REMOTE

DATE OF AERONAUTICAL INFORMATION UPTO-DECEMBER-2024
Airports Authority of India

(UPDATED ON-06-08-2025)

AAI/29-PDC-2024(CARTO)
AMDT 06/2025

PUBLISHED MAP ATLAS

TIR | VOTP-AOCTA-RWY-08

Existing / obstacles | AAI AIM | Original PDF page 1

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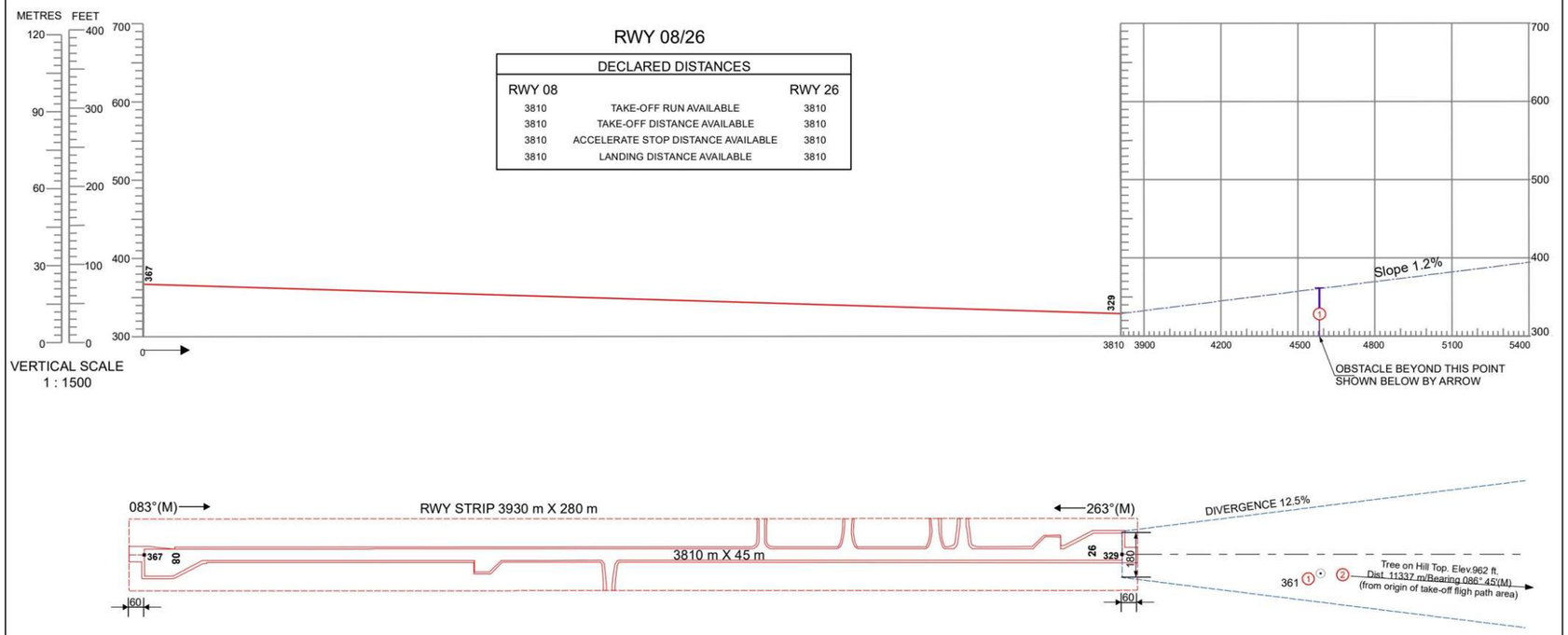
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ELEVATIONS IN FEET AND EGM-08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE - A (OPERATING LIMITATIONS)

INDIA / TIRUPATI
TIRUPATI AIRPORT / RWY 08

MAGNETIC VARIATION 02° W (2010)



RWY 08/26

DECLARED DISTANCES		
RWY 08		RWY 26
3810	TAKE-OFF RUN AVAILABLE	3810
3810	TAKE-OFF DISTANCE AVAILABLE	3810
3810	ACCELERATE STOP DISTANCE AVAILABLE	3810
3810	LANDING DISTANCE AVAILABLE	3810

LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
MOBILE ROAD TRAFFIC		
TREE OR SHRUB		
POLE, TOWER, SPIRE, ANTENNA, ETC.,		

ORDER OF ACCURACY
HORIZONTAL : 3.0 m
VERTICAL : 1.0 ft

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are EGM08.
3. Periphery Road without traffic is no obstacle
4. Consult NOTAM for latest information.
5. RWY direction rounded to nearest degree.(Magnetic)
   (In degree minute : RWY 08/26 = 083°15'/263°15') (2010)
   (In degree minute : RWY 08/26 = 083°02'/263°02') (2023)
6. Magnetic Variation rounded to nearest degree 01° 45' W Annual rate of change 1' E (2010)
7. All obstacles shown in this chart are based on Aeronautical Obstacle Survey of May, 2023
8. Chart Prepared Based on CAR S ection 9 AS & AT M S eries 'G', Part-I

OBSTACLE TABLE APP 26			
SNO	UUID	OBJECT	ELEV.FT.
1	VOTP_7095	DVOR, Lightning Arrester Top	361
2	VOTP_9309	Tree on Hill	962

AMENDMENT RECORD		
NO.	DATE	ENTERED BY
Sr. No-1	22-11-2024	Rwy Strip Dimension Change as per APD Tirupat " Action Plan for treatment of obstacles" on Dated-15 November 2024.

AERONAUTICAL INFORMATION UPTO - MAY 2023

UPDATED DATE-09-12-2024

DRG. NO:- AAI/33-OBS/CARTO/2024

PUBLISHED MAP ATLAS

TIR | VOTP-AOCTA-RWY-26

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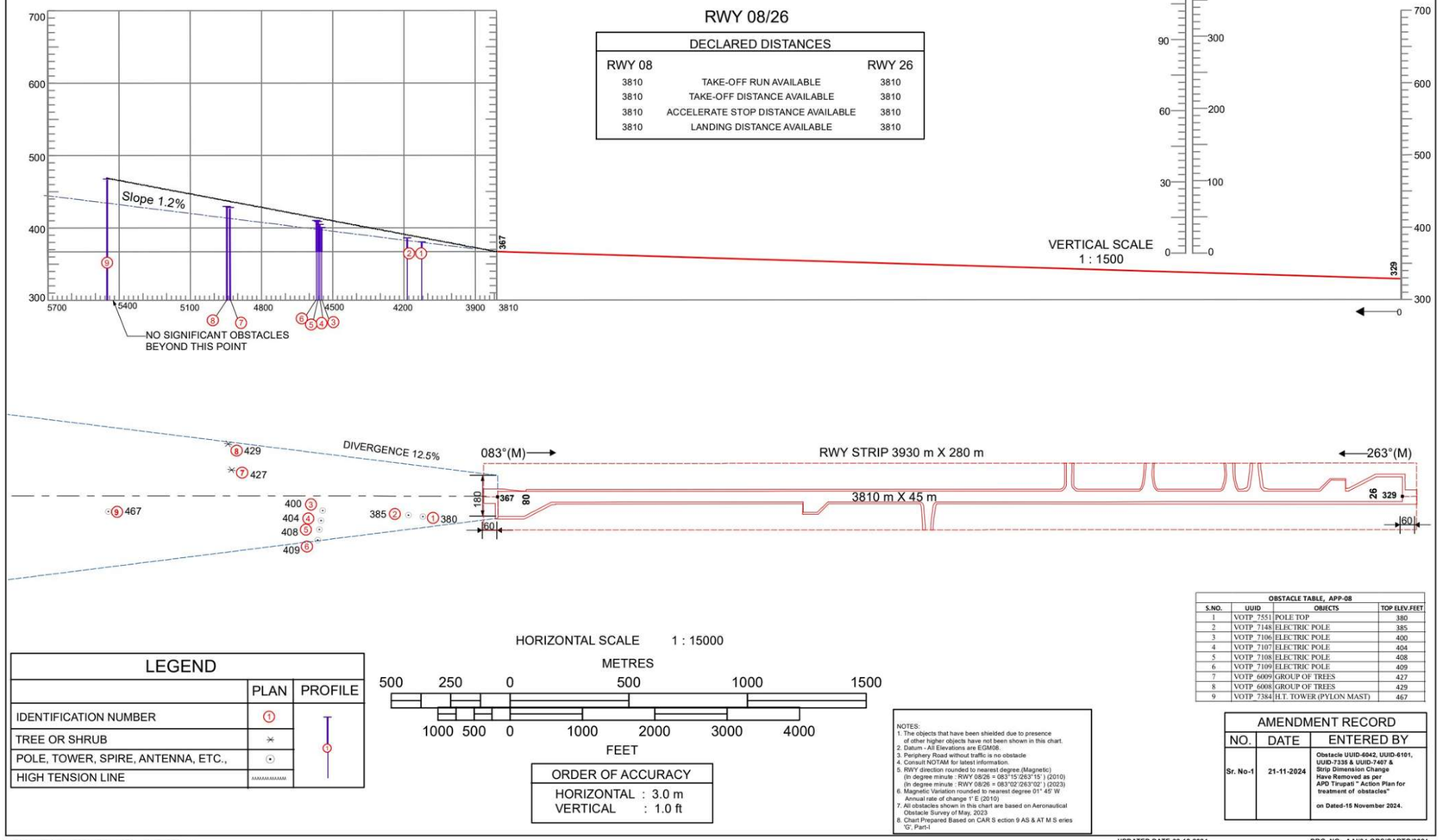
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ELEVATIONS IN FEET AND EGM-08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE - A (OPERATING LIMITATIONS)

INDIA / TIRUPATI
TIRUPATI AIRPORT / RWY 26

MAGNETIC VARIATION 02° W (2010)



LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
TREE OR SHRUB	✳	
POLE, TOWER, SPIRE, ANTENNA, ETC.,	⊙	
HIGH TENSION LINE	^^^^^^^^^^	

OBSTACLE TABLE, APP-08

S.NO.	UUID	OBJECTS	TOP ELEV.FEET
1	VOTP_7551	POLE TOP	380
2	VOTP_7148	ELECTRIC POLE	385
3	VOTP_7106	ELECTRIC POLE	400
4	VOTP_7107	ELECTRIC POLE	404
5	VOTP_7108	ELECTRIC POLE	408
6	VOTP_7109	ELECTRIC POLE	409
7	VOTP_6009	GROUP OF TREES	427
8	VOTP_6008	GROUP OF TREES	429
9	VOTP_7384	H.T. TOWER (PYLON MAST)	467

NOTES:
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum - All Elevations are EGM08.
3. Periphery Road without traffic is no obstacle
4. Consult NOTAM for latest information.
5. RWY direction rounded to nearest degree.(Magnetic)
(In degree minute : RWY 08/26 = 083°15'/263°15') (2010)
(In degree minute : RWY 08/26 = 083°02'/263°02') (2023)
6. Magnetic Variation rounded to nearest degree 01° 45' W
Annual rate of change 1' E (2010)
7. All obstacles shown in this chart are based on Aeronautical Obstacle Survey of May, 2023
8. Chart Prepared Based on CAR S ection 9 AS & AT M S eries 'G', Part-I

AMENDMENT RECORD		
NO.	DATE	ENTERED BY
Sr. No-1	21-11-2024	Obstacle UUID-6042, UUID-6101, UUID-7335 & UUID-7407 & Strip Dimension Change Have Removed as per APD Tirupati " Action Plan for treatment of obstacles" on Dated-15 November 2024.

AERONAUTICAL INFORMATION UPTO - NOVEMBER 2024

UPDATED DATE-09-12-2024

DRG. NO:- AAI/34-OBS/CARTO/2024

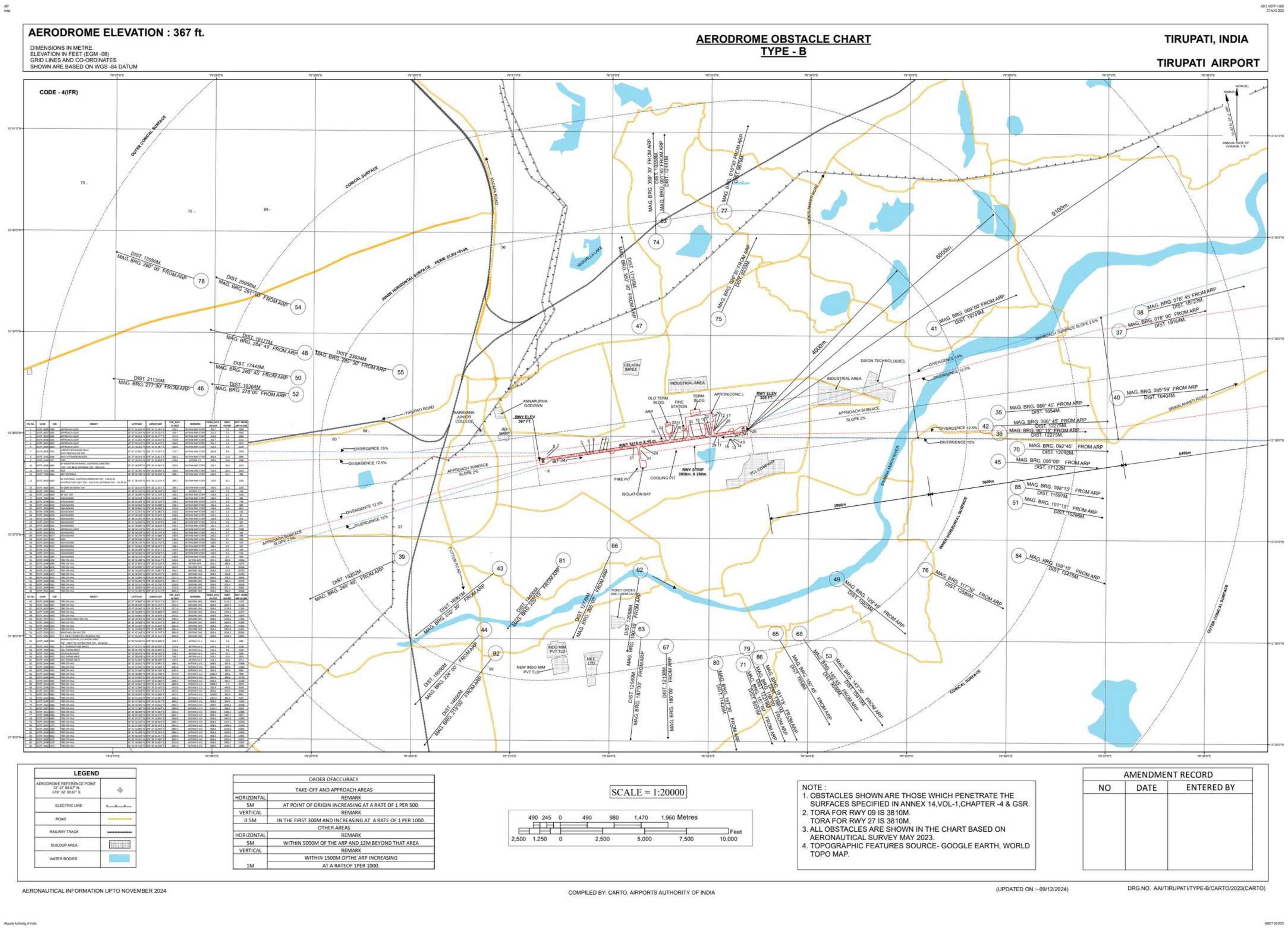
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TIR | VOTP-AOCTB

Existing / obstacles | AAI AIM | Original PDF page 1

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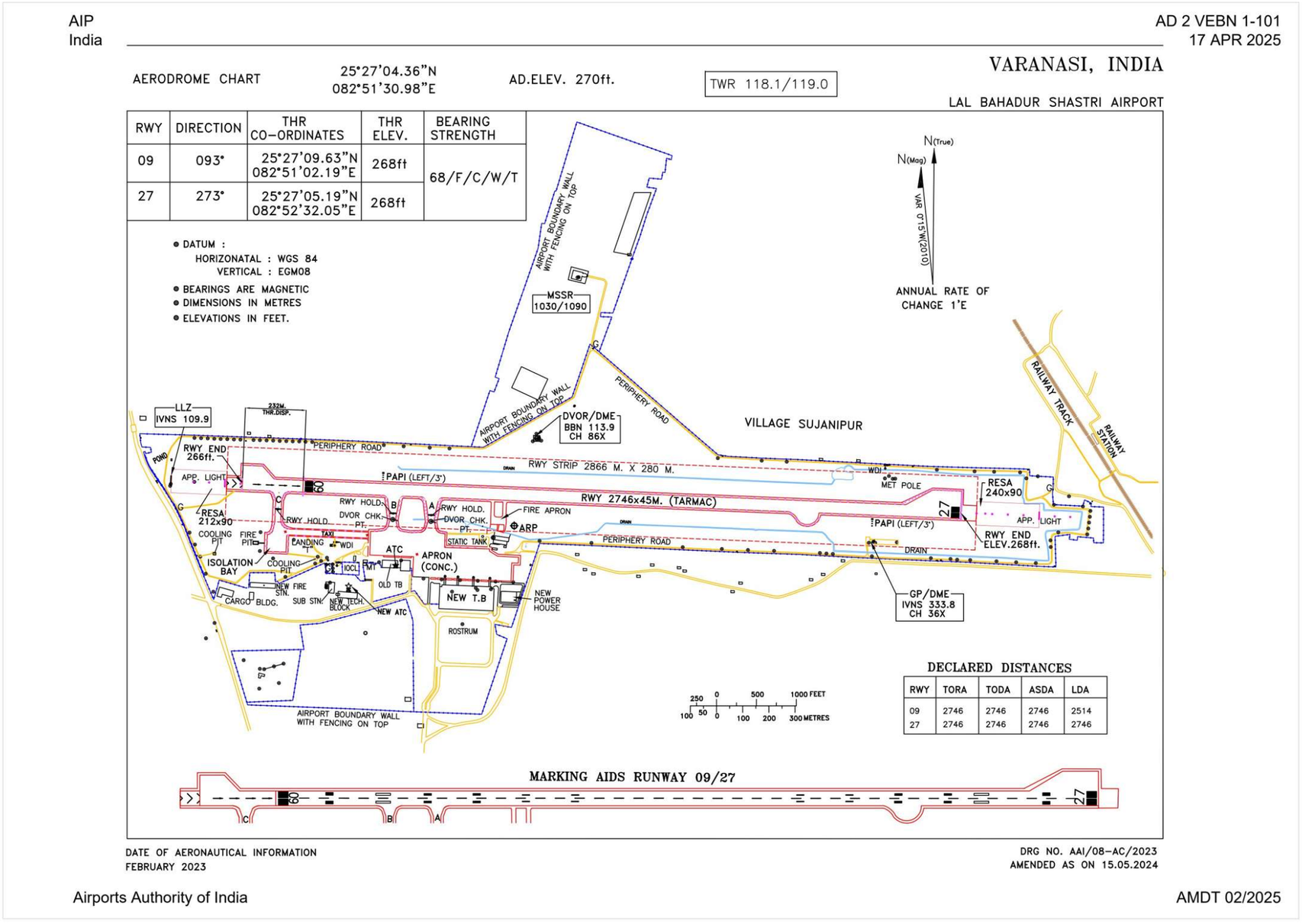
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VNS | VEBN-ADC

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AIRCRAFT PARKING/ DOCKING CHART

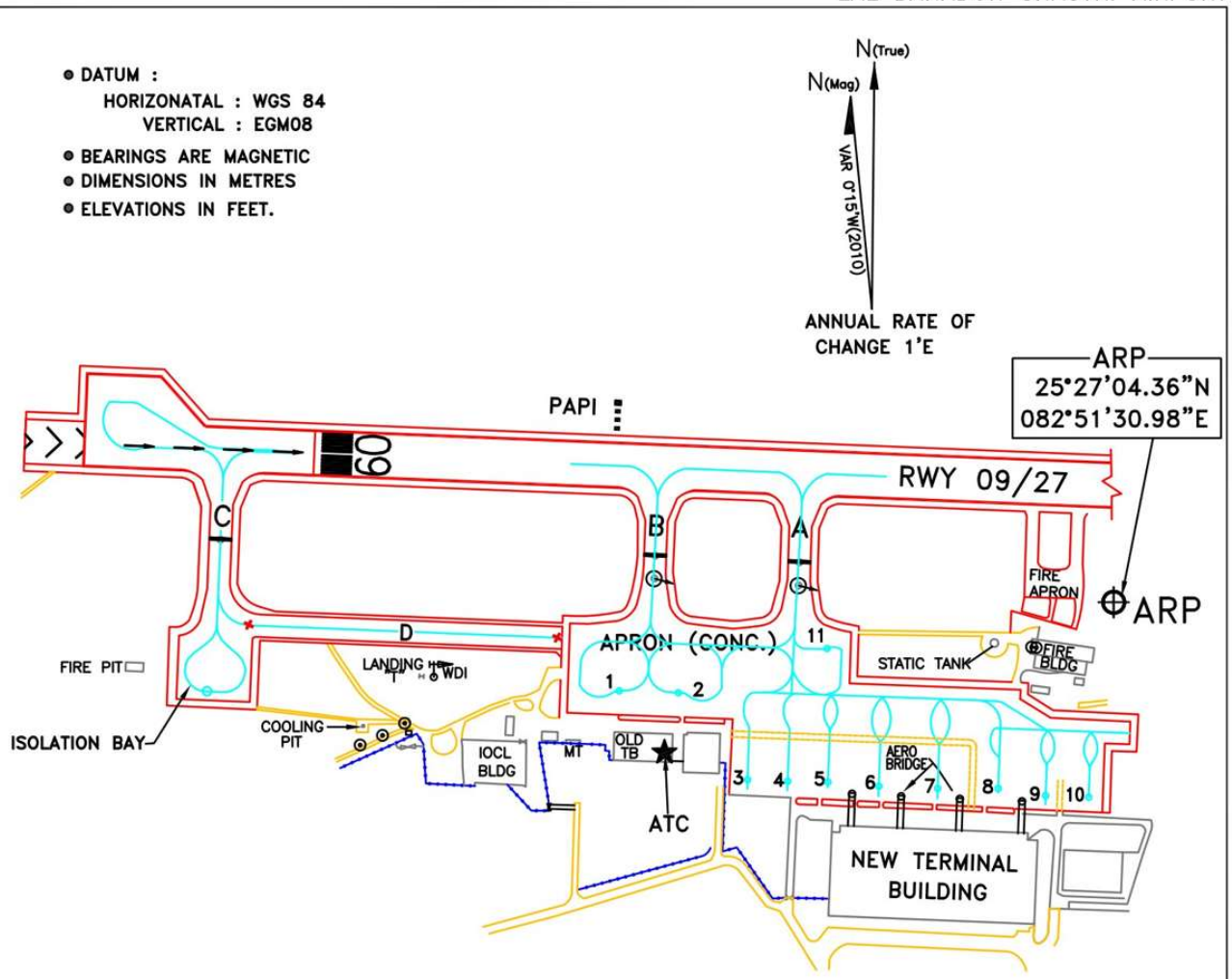
APRON ELEV 268

TWR 118.1/119.0

VARANASI, INDIA

LAL BAHADUR SHASTRI AIRPORT

- DATUM :
  HORIZONATAL : WGS 84
  VERTICAL : EGM08
- BEARINGS ARE MAGNETIC
- DIMENSIONS IN METRES
- ELEVATIONS IN FEET.



LEGEND	
AIRCRAFT STAND	11
RWY HOLDING POSITION	
DVOR CHECK POINT	

STAND NO.	WGS CO-ODINATE S FOR AIRCRAFT STAND		SUITABLITY	PCN	ELEV.	AIRCRAFT STAND STATUS
1	25°27'01.73766"N	082°51'13.14231"E	A322/B739	68/R/C/W/T	268	POWER IN /POWER OUT
2	25°27'01.64159"N	082°51'15.24599"E	A322/B739	68/R/C/W/T	268	POWER IN /POWER OUT
3	25°26'58.77277"N	082°51'17.68997"E	A322/B739	68/R/C/W/T	267	POWER IN /PUSH BACK
4	25°26'58.69930"N	082°51'19.13710"E	A322/B739	68/R/C/W/T	268	POWER IN /PUSH BACK
5	25°26'58.64348"N	082°51'20.58590"E	A322	68/R/C/W/T	268	POWER IN /PUSH BACK
6	25°26'58.56668"N	082°51'22.42911"E	B767	68/R/C/W/T	267	POWER IN /PUSH BACK
7	25°26'58.46855"N	082°51'24.56793"E	B767	68/R/C/W/T	268	POWER IN /PUSH BACK
8	25°26'58.33511"N	082°51'26.72901"E	A322	68/R/C/W/T	268	POWER IN /PUSH BACK
9	25°26'58.06590"N	082°51'28.44143"E	A322/B739	68/R/C/W/T	268	POWER IN /PUSH BACK
10	25°26'57.99058"N	082°51'29.99728"E	A322/B739	68/R/C/W/T	268	POWER IN /PUSH BACK
11	25°27'02.98600"N	082°51'20.60320"E	D228/212	68/R/C/W/T	267	POWER IN /POWER OUT
ISOLATION BAY	25°27'01.85252"N	082°50'58.20000"E	A321	68/R/C/W/T	267	POWER IN / POWER OUT

TAXIWAY	PCN	WIDTH
A	68/R/C/W/T	23
B	68/R/C/W/T	23
C	68/R/C/W/T	23

DATE OF AERONAUTICAL INFORMATION
NOVEMBER 2021

DRG NO. AAI/31–PDC/2021
(UPDATED AS ON 17.03.2022)

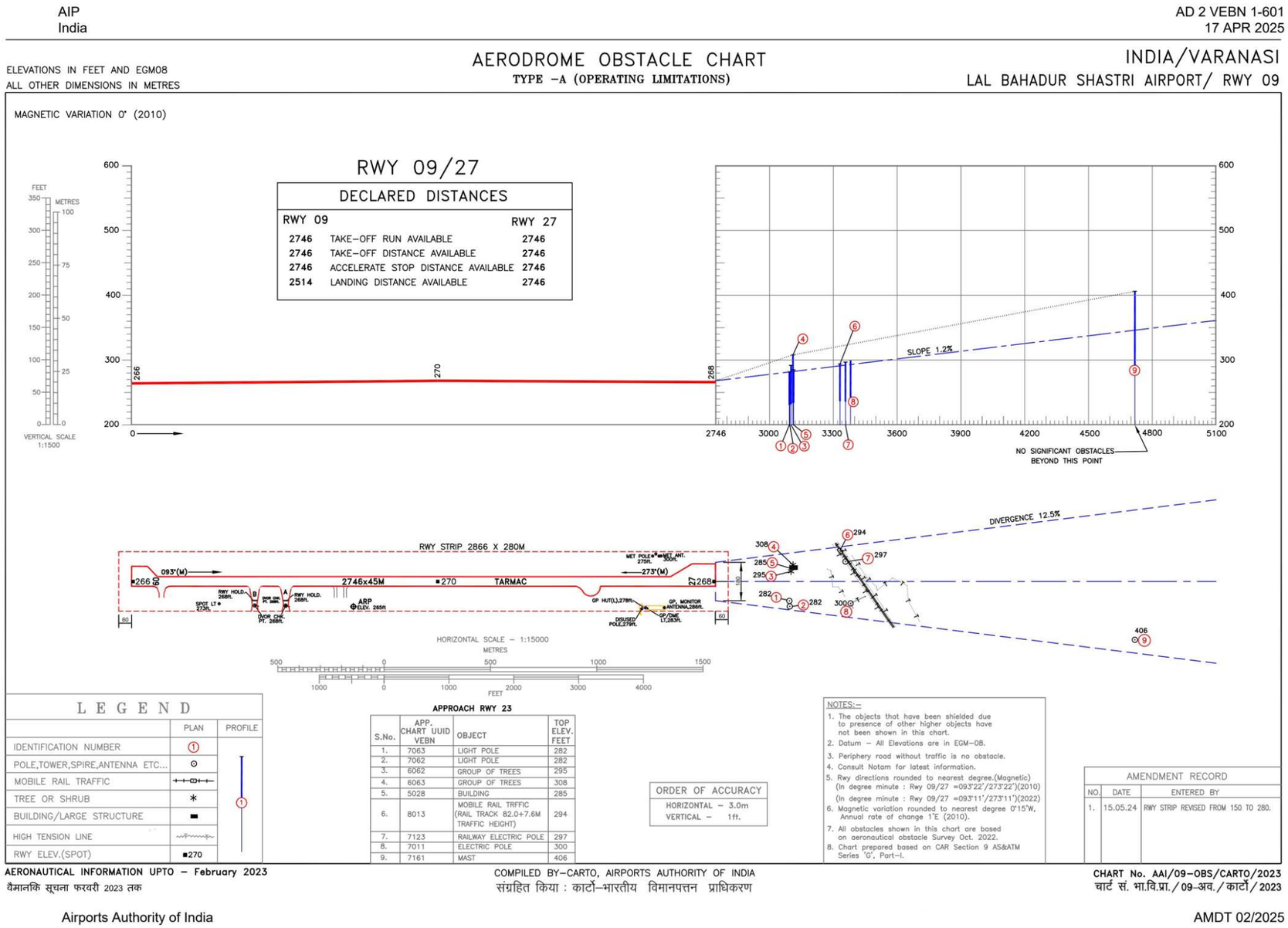
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VNS | VEBN-AOCTA-RWY-09

Existing / obstacles | AAI AIM | Original PDF page 1

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AIP
India

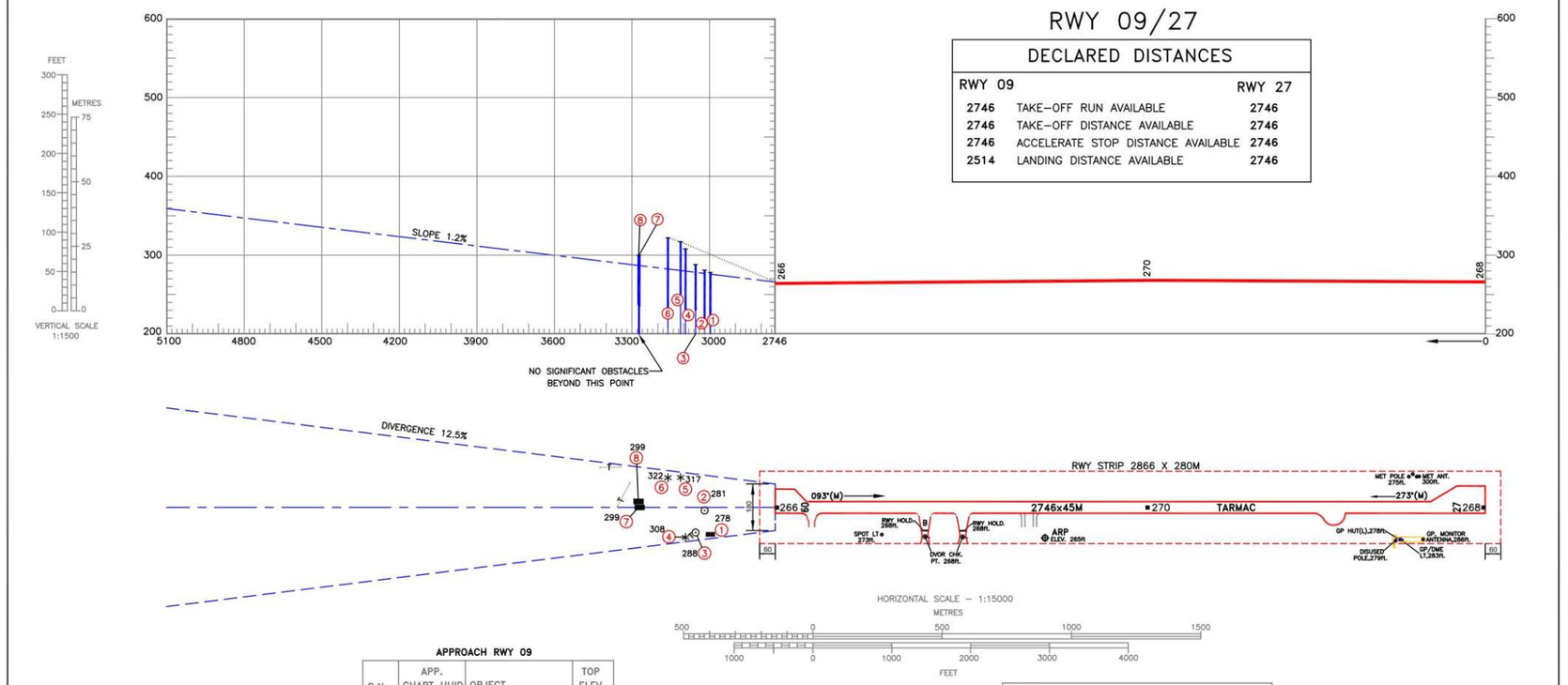
AD 2 VEBN 1-603
17 APR 2025

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

ELEVATIONS IN FEET AND EGM08
ALL OTHER DIMENSIONS IN METRES

INDIA/VARANASI
LAL BAHADUR SHASTRI AIRPORT/ RWY 27

MAGNETIC VARIATION 0° (2010)



RWY 09/27

DECLARED DISTANCES

RWY 09		RWY 27
2746	TAKE–OFF RUN AVAILABLE	2746
2746	TAKE–OFF DISTANCE AVAILABLE	2746
2746	ACCELERATE STOP DISTANCE AVAILABLE	2746
2514	LANDING DISTANCE AVAILABLE	2746

APPROACH RWY 09

S.No.	APP. CHART UUID VEBN	OBJECT	TOP ELEV. FEET
1.	9018	GATE TOP	278
2.	4018	L/C ROD ON LLZ 5Nos.	281
3.	7025	ELECTRIC POLE	288
4.	6038	GROUP OF TREES	308
5.	6068	GROUP OF TREES	317
6.	6098	TREE	322
7.	5055	HOUSE	299
8.	5029	BUILDING	299

LEGEND

	PLAN
IDENTIFICATION NUMBER	①
TREE OR SHRUB	*
BUILDING/LARGE STRUCTURE	■
POLE.TOWER,MAST,ANTENNA ETC...	⊙
HIGH TENSION LINE	
RWY ELEV.(SPOT)	■270

ORDER OF ACCURACY

HORIZONTAL – 3.0m
VERTICAL – 1ft.

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–08.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic)
   (In degree minute : Rwy 09/27 =093°22'/273°22')(2010)
   (In degree minute : Rwy 09/27 =093°11'/273°11')(2022)
6. Magnetic variation rounded to nearest degree 0°15'W, Annual rate of change 1°E (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey Oct. 2022.
8. Chart prepared based on CAR Section 9 AS&ATM Series 'G', Part–I.

AMENDMENT RECORD

NO.	DATE	ENTERED BY
1.	15.05.24	RWY STRIP REVISED FROM 150 TO 280.

AERONAUTICAL INFORMATION UPTO – FEBRUARY 2023
वैमानिक सूचना फरवरी 2023 तक

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA
संग्रहित किया : कार्टो–भारतीय विमानपत्तन प्राधिकरण

CHART No. AAI/10–OBS/CARTO/2023
चार्ट सं. भा.वि.प्रा./10–अव./कार्टो/2023

Airports Authority of India

AMDT 02/2025

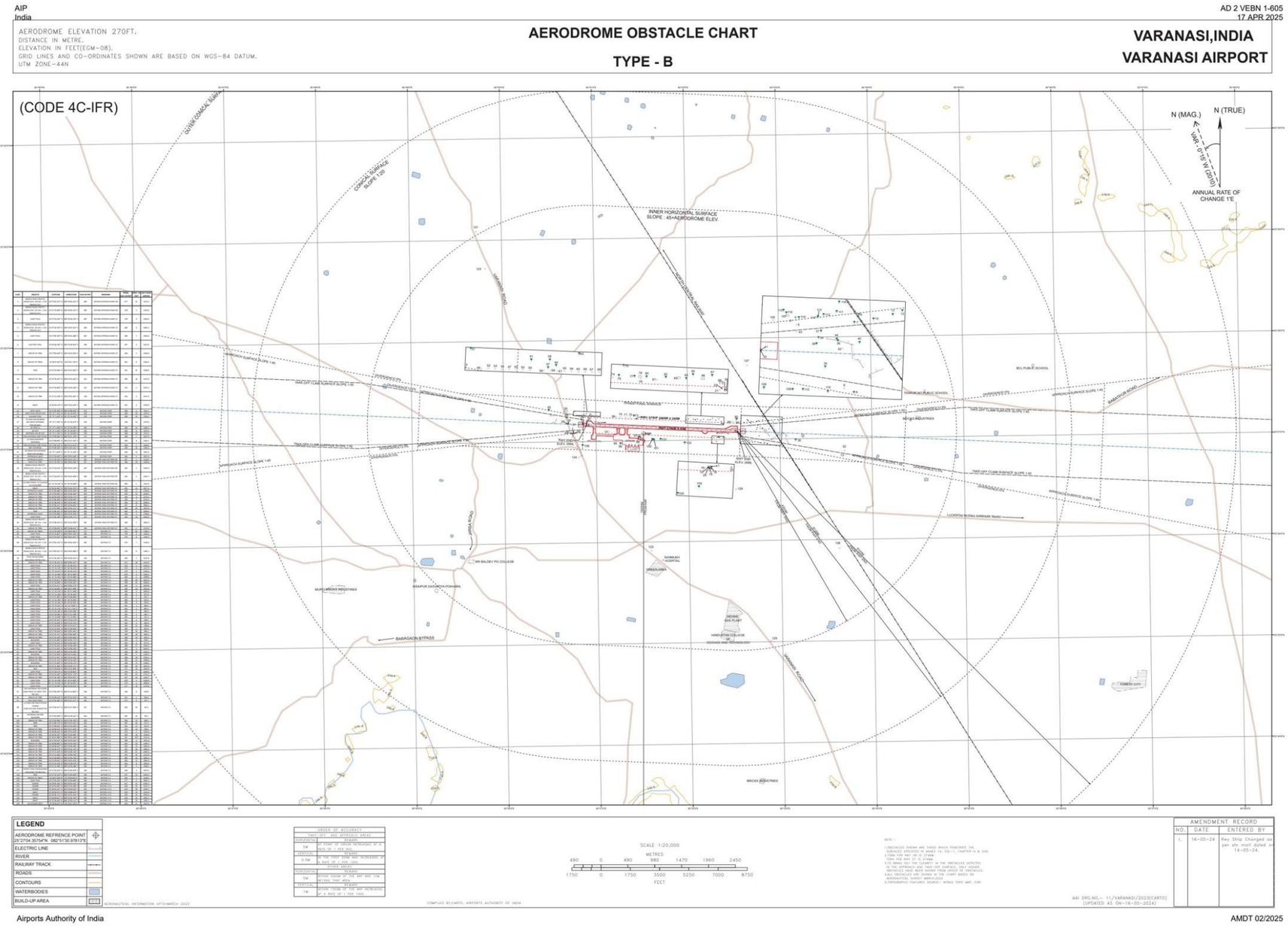
PUBLISHED MAP ATLAS

VNS | VEBN-AOCTB

Existing / obstacles | AAI AIM | Original PDF page 1

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PUBLISHED MAP ATLAS

GAY | VEGY-ADC

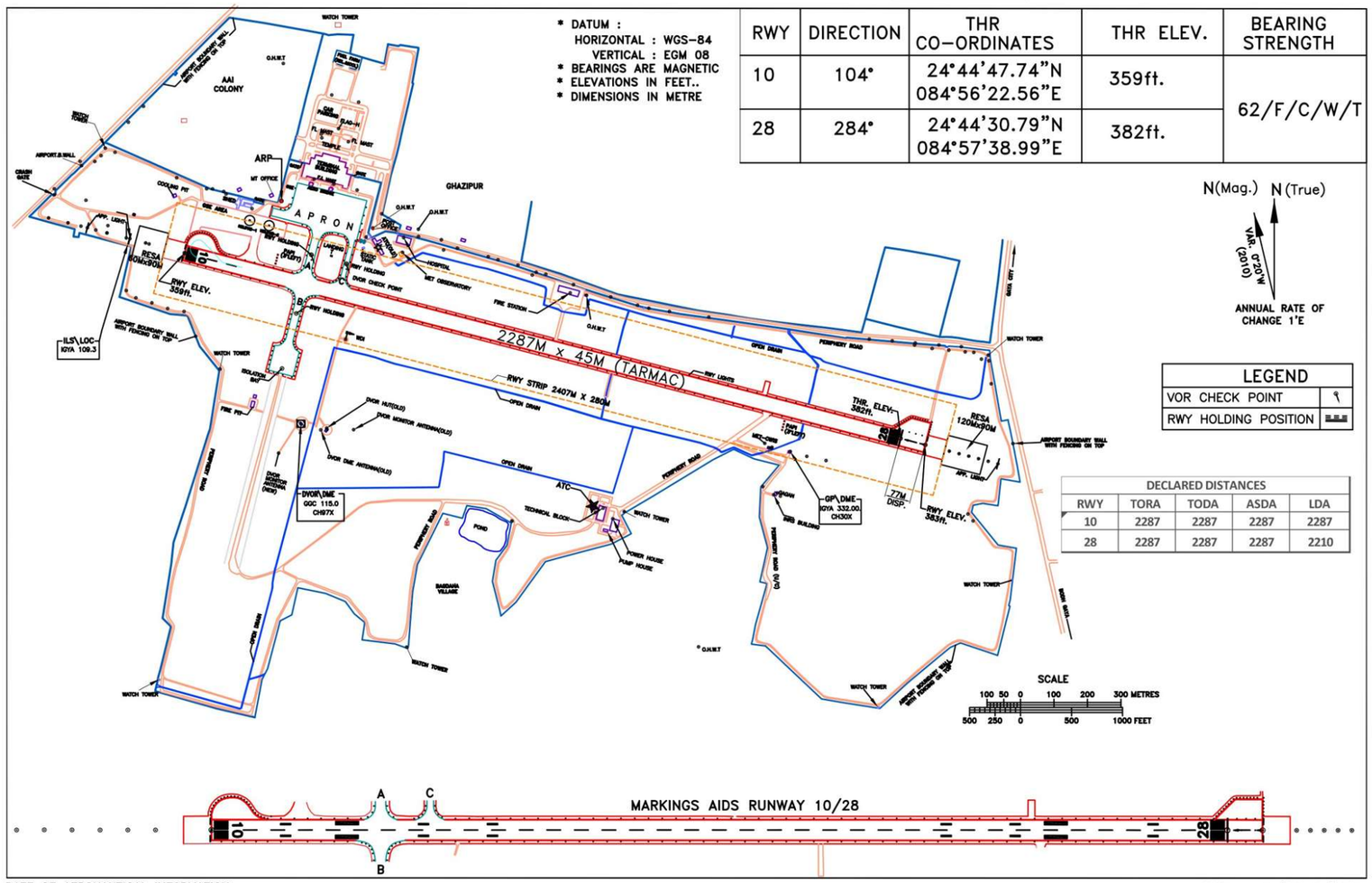
Existing / obstacles | AAI AIM | Original PDF page 1

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AERODROME CHART — 24°44'52.94"N 84°56'32.77"E — AD.ELEV. 383 Ft. — TWR 118.45 STD BY 118.25

GAYA, INDIA
GAYA AIRPORT



DATE OF AERONAUTICAL INFORMATION
JUNE 2023

DRG.No.–AAI/05–AC/2024

PUBLISHED MAP ATLAS

GAY | VEGY-PDC

Existing / obstacles | AAI AIM | Original PDF page 1

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AIRCRAFT PARKING/ DOCKING CHART

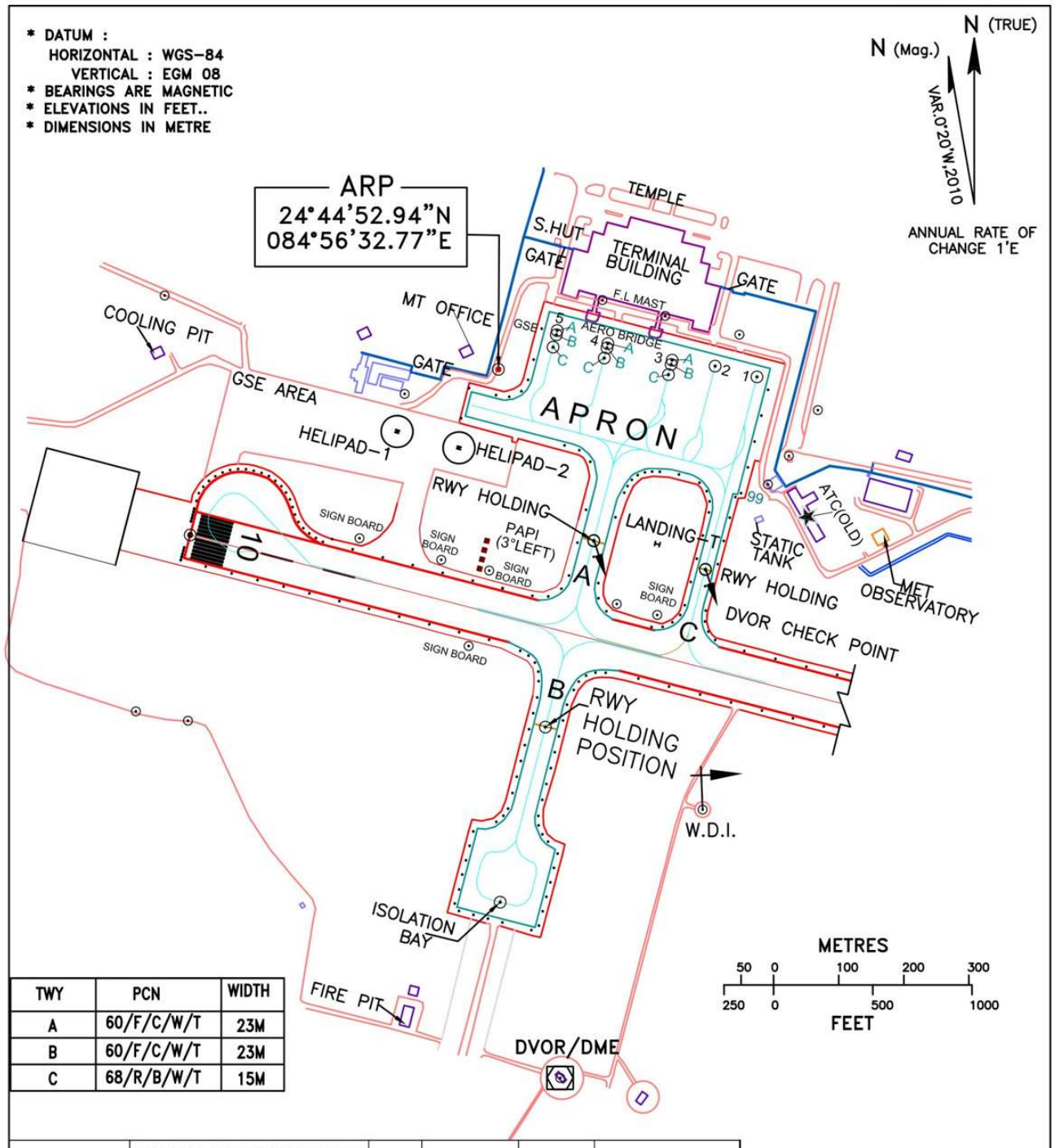
APRON ELEV. 372 ft.

TWR 118.45
STD BY 118.25

GAYA, INDIA

GAYA AIRPORT

* DATUM :
HORIZONTAL : WGS–84
VERTICAL : EGM 08
* BEARINGS ARE MAGNETIC
* ELEVATIONS IN FEET..
* DIMENSIONS IN METRE



TWY	PCN	WIDTH
A	60/F/C/W/T	23M
B	60/F/C/W/T	23M
C	68/R/B/W/T	15M

STAND No.	WGS-84 CO-ORDINATES FOR AIRCRAFT STANDS		ELEV.	SUITABLITY	PCN	AIRCRAFT STAND STATUS
	LATITUDE	LONGITUDE				
PB-01	24°44'52.82584"N	084°56'41.40732"E	372	AT72	60/F/C/W/T	POWER IN / PUSH BACK
PB-02	24°44'53.13688"N	084°56'40.00729"E	372	AT72	60/F/C/W/T	POWER IN / PUSH BACK
PB-03A	24°44'53.29614"N	084°56'38.56555"E	372	A321	71/R/B/W/T	POWER IN / PUSH BACK
PB-03B	24°44'52.85308"N	084°56'38.44781"E	372	ATR	71/R/B/W/T	POWER IN / PUSH BACK
PB-03C	24°44'53.16811"N	084°56'38.53178"E	372	B737-A319	71/R/B/W/T	POWER IN / PUSH BACK
PB-04A	24°44'53.77276"N	084°56'36.41407"E	370	A321	71/R/B/W/T	POWER IN / PUSH BACK
PB-04B	24°44'53.33004"N	084°56'36.29555"E	370	ATR	71/R/B/W/T	POWER IN / PUSH BACK
PB-04C	24°44'53.64382"N	084°56'36.37947"E	370	B737-A319	71/R/B/W/T	POWER IN / PUSH BACK
PB-05A	24°44'54.14793"N	084°56'34.71270"E	368	A321	71/R/B/W/T	POWER IN / PUSH BACK
PB-05B	24°44'53.64216"N	084°56'34.57681"E	368	ATR	71/R/B/W/T	POWER IN / PUSH BACK
PB-05C	24°44'54.01941"N	084°56'34.67836"E	368	B737-A319	71/R/B/W/T	POWER IN / PUSH BACK
ISOLATION BAY	24°44'36.68023"N	084°56'33.09512"E	365	ISOLATION BAY	65/F/C/W/T	POWER IN / PUSH OUT

LEGEND	
AIRCRAFT STANDS	5
DVOR CHECK POINT	
RWY HOLDING POINT	

DATE OF AERONAUTICAL INFORMATION
MAY 2023

DRG.NO.–AAI/06–PDC/GAYA/2024

PUBLISHED MAP ATLAS

GAY | VEGY-AOCTA-RWY-10

Existing / obstacles | AAI AIM | Original PDF page 1

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AIP
INDIA

AD 2 VEGY 1-601
12 JUNE 2025

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

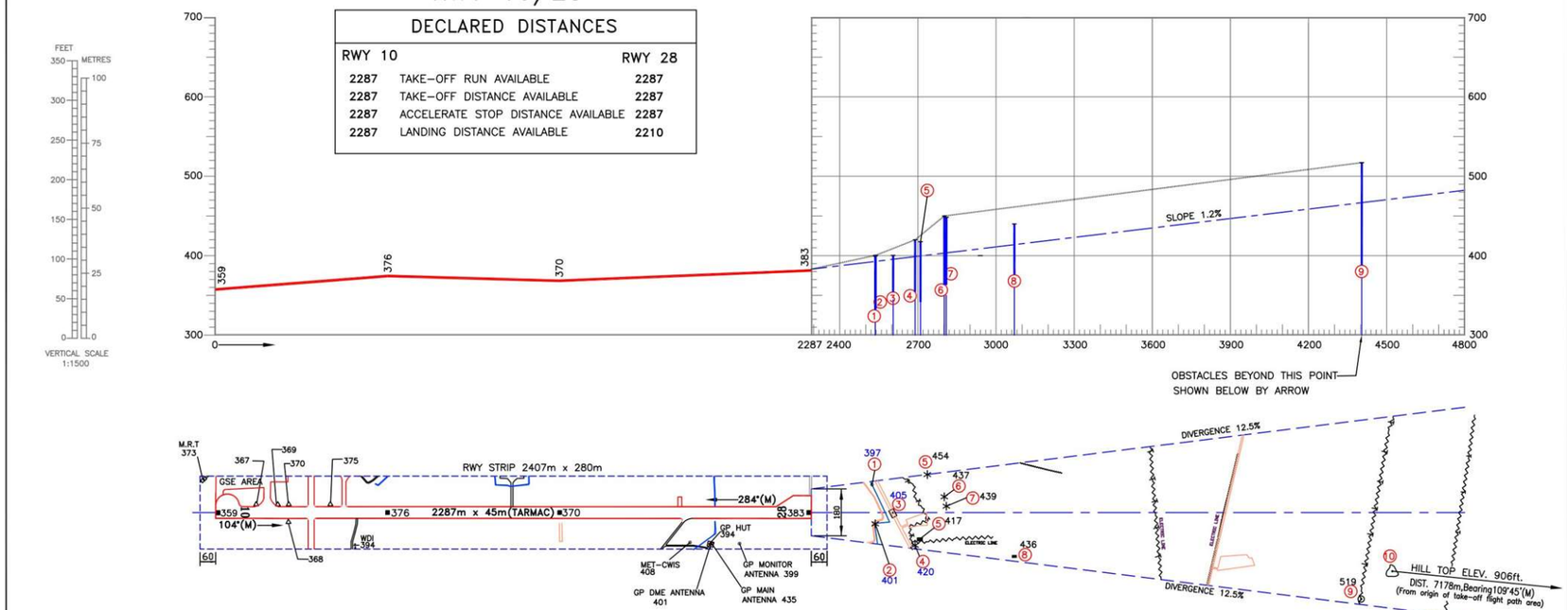
INDIA/GAYA
GAYA AIRPORT/RWY 10

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

MAGNETIC VARIATION 0° (2010)

RWY 10/28

DECLARED DISTANCES		
RWY 10		RWY 28
2287	TAKE–OFF RUN AVAILABLE	2287
2287	TAKE–OFF DISTANCE AVAILABLE	2287
2287	ACCELERATE STOP DISTANCE AVAILABLE	2287
2287	LANDING DISTANCE AVAILABLE	2210



LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
POLE,TOWER,SPIRE,ANTENNA ETC...	⊙	
TREE OR SHRUB	*	
MOBILE ROAD TRAFFIC		
BUILDING OR LARGE STRUCTURE	▪	
HILL TOP	△	
HIGH TENSION LINE	~T~~T~	
SIGN BOARD	△	
RWY ELEV.(SPOT)	▪376	

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

S.NO.	UUID	OBJECT	ELEV_FEET
1	VEGY_8008	AIRPORT B.WALL WITH F/T	397
2	VEGY_6081	GROUP OF TREE	401
3	VEGY_8046	MOBILE ROAD TRAFFIC (MRT)	405
4	VEGY_6151	GROUP OF TREE	420
5	VEGY_5080	BUILDING	417
6	VEGY_6056	GROUP OF TREE	437
7	VEGY_6055	GROUP OF TREE	439
8	VEGY_5157	WATER TANK ON BUILDING	436
9	VEGY_7188	PYLON MAST	519
10	VEGY_9020	HILL TOP	906

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are EGM–2008.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic)
   (In degree minute : Rwy 10/28=103°59'/283°59')(2010)
   (In degree minute : Rwy 10/28=103°46'/283°46')(2023)
6. Magnetic variation rounded to nearest degree 0°20'W, Annual rate of change 1° E (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey May 2023.
8. Chart prepared based on CAR Section 9 AS&ATM Series 'G', Part–I.

AMENDMENT RECORD		
NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO – JUNE 2023
Airports Authority of India

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA

CHART No. AAI/05–OBS/CARTO/2024
AMDT 03/2025

PUBLISHED MAP ATLAS

GAY | VEGY-AOCTA-RWY-28

Existing / obstacles | AAI AIM | Original PDF page 1

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AIP
INDIA

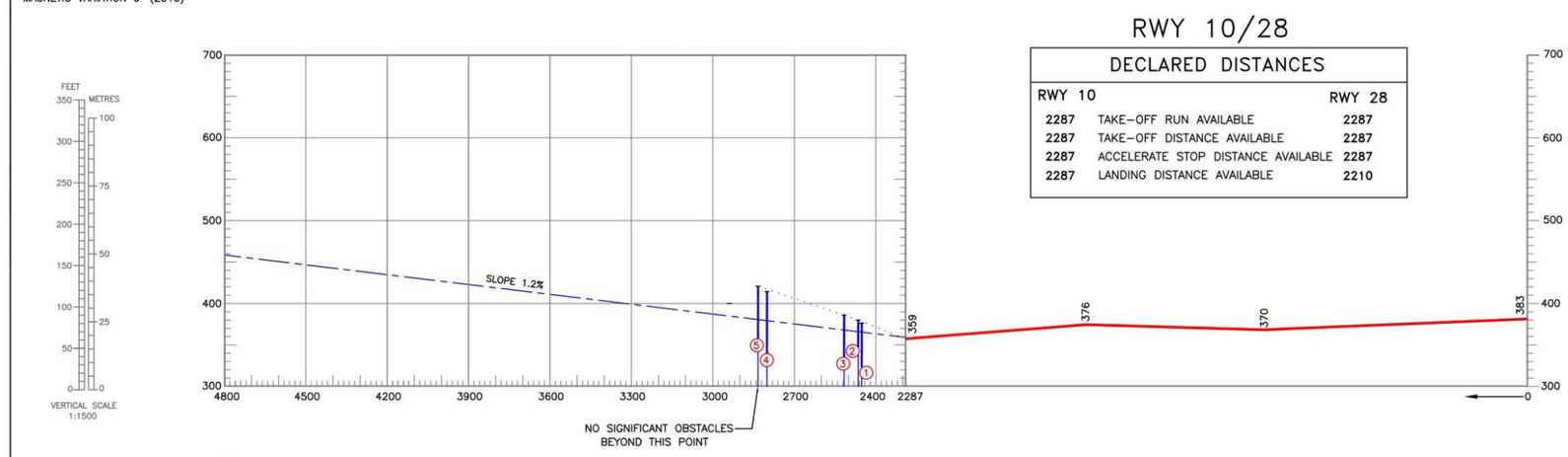
AD 2 VEGY 1-603
12 JUNE 2025

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

INDIA/GAYA
GAYA AIRPORT/RWY 28

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

MAGNETIC VARIATION 0° (2010)



RWY 10/28

DECLARED DISTANCES

RWY 10		RWY 28
2287	TAKE–OFF RUN AVAILABLE	2287
2287	TAKE–OFF DISTANCE AVAILABLE	2287
2287	ACCELERATE STOP DISTANCE AVAILABLE	2287
2287	LANDING DISTANCE AVAILABLE	2210

LEGEND

	PLAN
IDENTIFICATION NUMBER	①
TREE OR SHRUB	*
BUILDING OR LARGE STRUCTURE	▪
HIGH TENSION LINE	~T~~T~
SIGN BOARD	△
ANTENNA ON HUT	⊡
RWY ELEV.(SPOT)	▪376

PROFILE: ①

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

S.No.	UUID	OBJECT	TOP ELEV IN FEET
1	VEGY_6093	GROUP OF TREE	377
2	VEGY_9030	ANTENNA ON LOCALIZER HUT	380
3	VEGY_6097	GROUP OF TREE	387
4	VEGY_6130	GROUP OF TREE	415
5	VEGY_6021	GROUP OF TREE	421

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are EGM–2008.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic)
   (In degree minute : Rwy 10/28=103°59'/283°59')(2010)
   (In degree minute : Rwy 10/28=103°46'/283°46')(2023)
6. Magnetic variation rounded to nearest degree 0°20'W, Annual rate of change 1° E (2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey May 2023.
8. Chart prepared based on CAR Section 9 AS&ATM Series 'G', Part–I.

AMENDMENT RECORD

NO.	DATE	ENTERED BY

AERONAUTICAL INFORMATION UPTO – JUNE 2023
Airports Authority of India

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA

CHART No. AAI/06/OBS/CARTO/2024
AMDT 03/2025

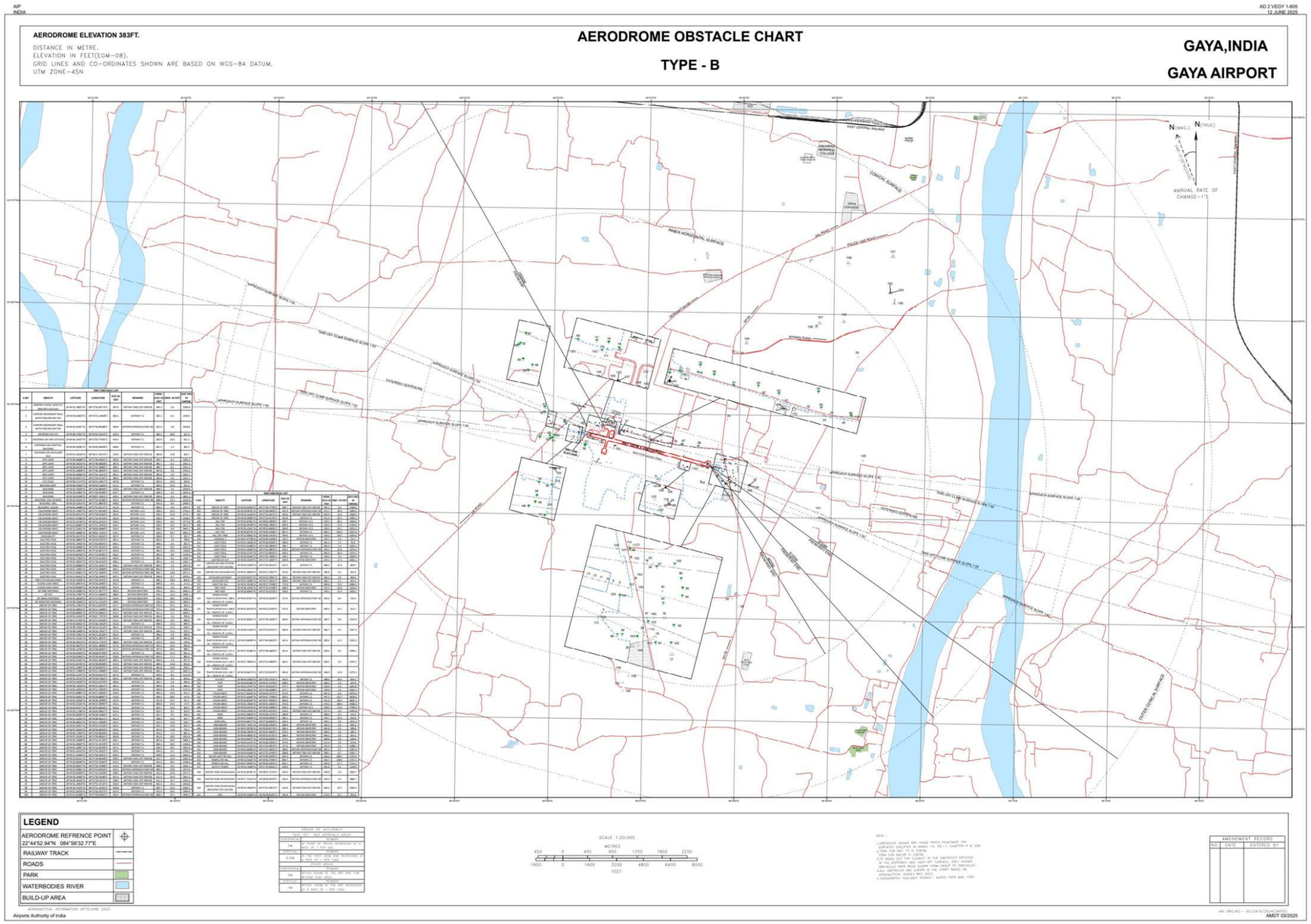
PUBLISHED MAP ATLAS

GAY | VEGY-AOCTB

Existing / obstacles | AAI AIM | Original PDF page 1

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PUBLISHED MAP ATLAS

KBK | VEKI-ADC

Existing / obstacles | AAI AIM | Original PDF page 1

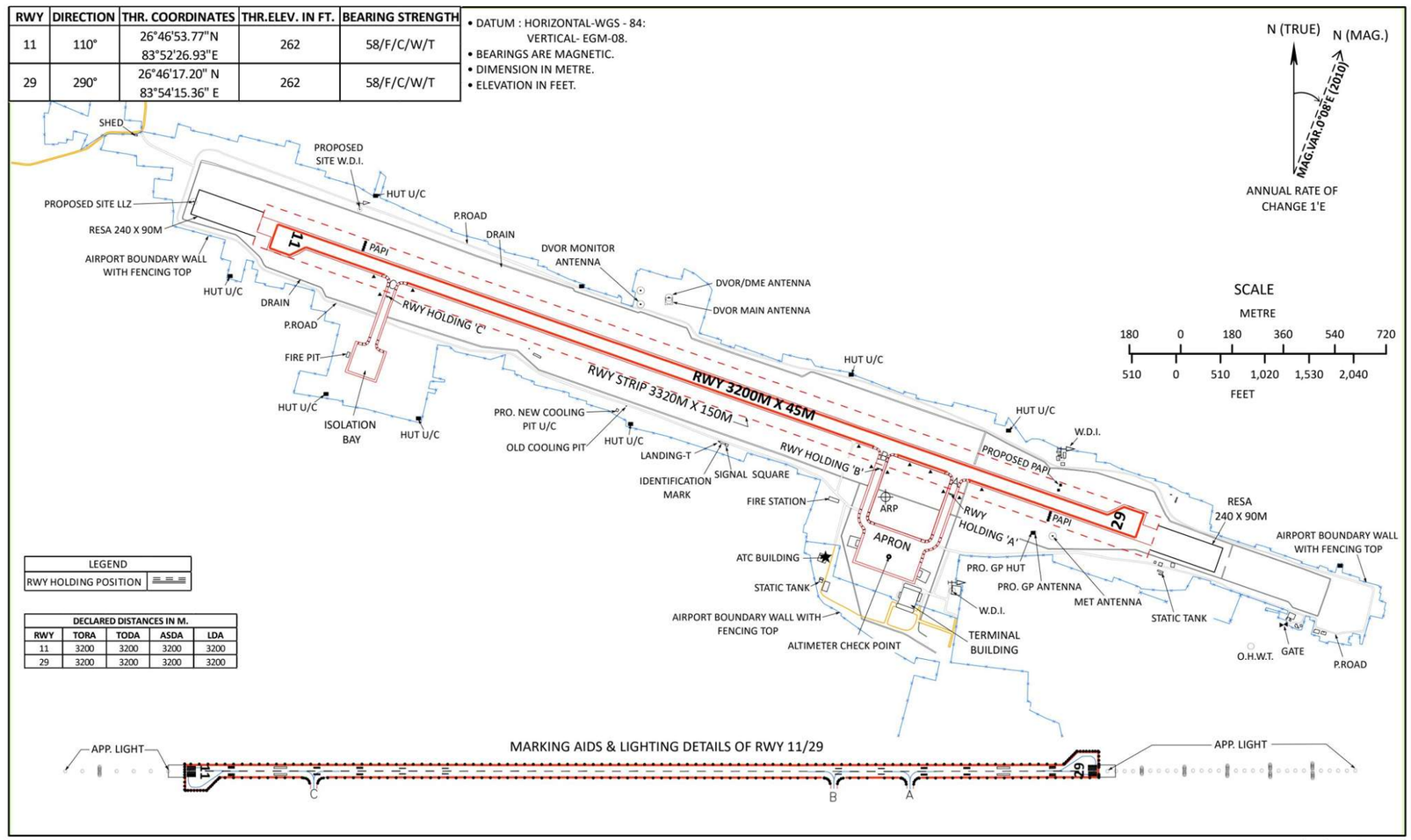
Published operational layout/obstacle reference; no as-built certification or current NOTAM check Retrieved 3 November 2026; chart date/revision as printed

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AERODROME CHART — **26°46'21.86"N 083°53'43.49"E** — **AD.ELEV.263ft.** — TWR - 118.675 BACK-UP - 118.025 — **KUSHINAGAR, INDIA KUSHINAGAR AIRPORT**

RWY	DIRECTION	THR. COORDINATES	THR.ELEV. IN FT.	BEARING STRENGTH
11	110°	26°46'53.77"N 83°52'26.93"E	262	58/F/C/W/T
29	290°	26°46'17.20" N 83°54'15.36" E	262	58/F/C/W/T

- DATUM : HORIZONTAL-WGS - 84: VERTICAL- EGM-08.
- BEARINGS ARE MAGNETIC.
- DIMENSION IN METRE.
- ELEVATION IN FEET.



DATE OF AERONAUTICAL INFORMATION
NOVEMBER 2023

DRG.NO.AAI - 45/AC/2023(CARTO)

PUBLISHED MAP ATLAS

KBK | VEKI-PDC

Existing / obstacles | AAI AIM | Original PDF page 1

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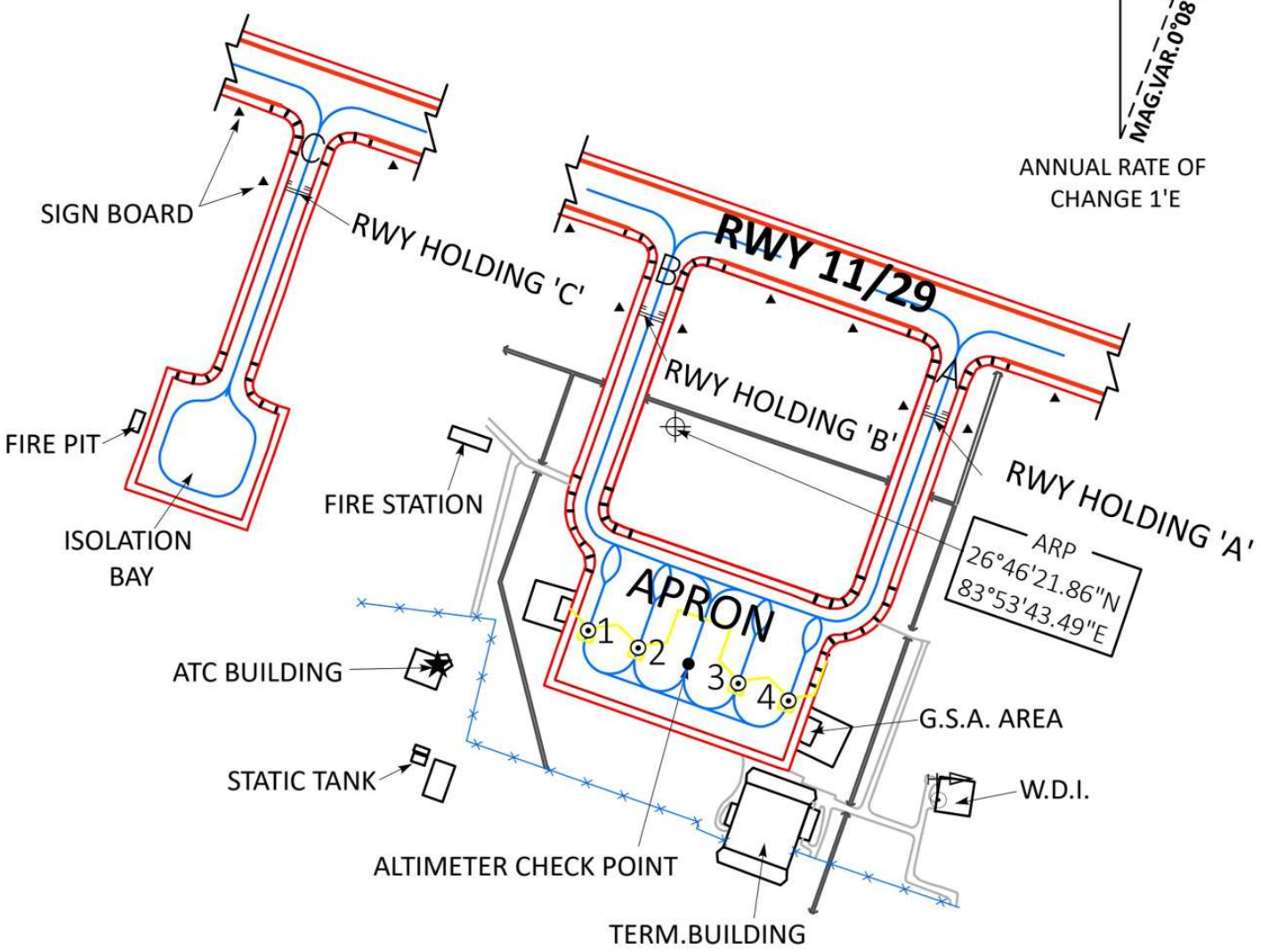
AIRCRAFT PARKING/ DOCKING CHART

APRON ELEV.262ft.

TWR - 118.675
BACK-UP - 118.025

KUSHINAGAR, INDIA
KUSHINAGAR AIRPORT

- DATUM : HORIZONTAL-WGS - 84: VERTICAL- EGM-08.
- BEARINGS ARE MAGNETIC.
- DIMENSION IN METRE.
- ELEVATION IN FEET.



LEGEND	
AIRCRAFT STANDS	⊙4
RWY HOLDING POSITION	≡≡≡

SCALE
METRE
90 0 90 180 270 360
240 0 240 480 720 960
FEET

TWY	PCN	WIDTH IN M.
A	58/F/C/W/T	23.1
B	58/F/C/W/T	23.1
C	50/F/C/W/T	23.1

STAND NO.	WGS CO-ORDINATES FOR AIRCRAFT STANDS	ELEV.IN FEET	SUITABILITY	PCN	STATUS
1	26° 46' 16.032" N 083° 53' 40.545" E	261	737-900	60/R/B/W/T	POWER IN POWER OUT
2	26° 46' 15.492" N 083° 53' 42.136" E	262	737-900	60/R/B/W/T	POWER IN POWER OUT
3	26° 46' 14.412" N 083° 53' 45.316" E	262	737-900	60/R/B/W/T	POWER IN POWER OUT
4	26° 46' 13.872" N 083° 53' 46.907" E	261	737-900	60/R/B/W/T	POWER IN POWER OUT
ISOLATION BAY	-	-	-	50/F/C/W/T	POWER IN POWER OUT

DATE OF AERONAUTICAL INFORMATION
NOVEMBER 2023

DRG.NO.AAI - 46/PDC/2023(CARTO)

(UPDATED ON 02.05.2024)

Airports Authority of India

AMDT 03/2025

PUBLISHED MAP ATLAS

KBK | VEKI-AOCTA-RWY-11

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AIP
India

AD 2 VEKI 1-601
12 JUN 2025

ELEVATIONS IN FEET AND EGM–08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART

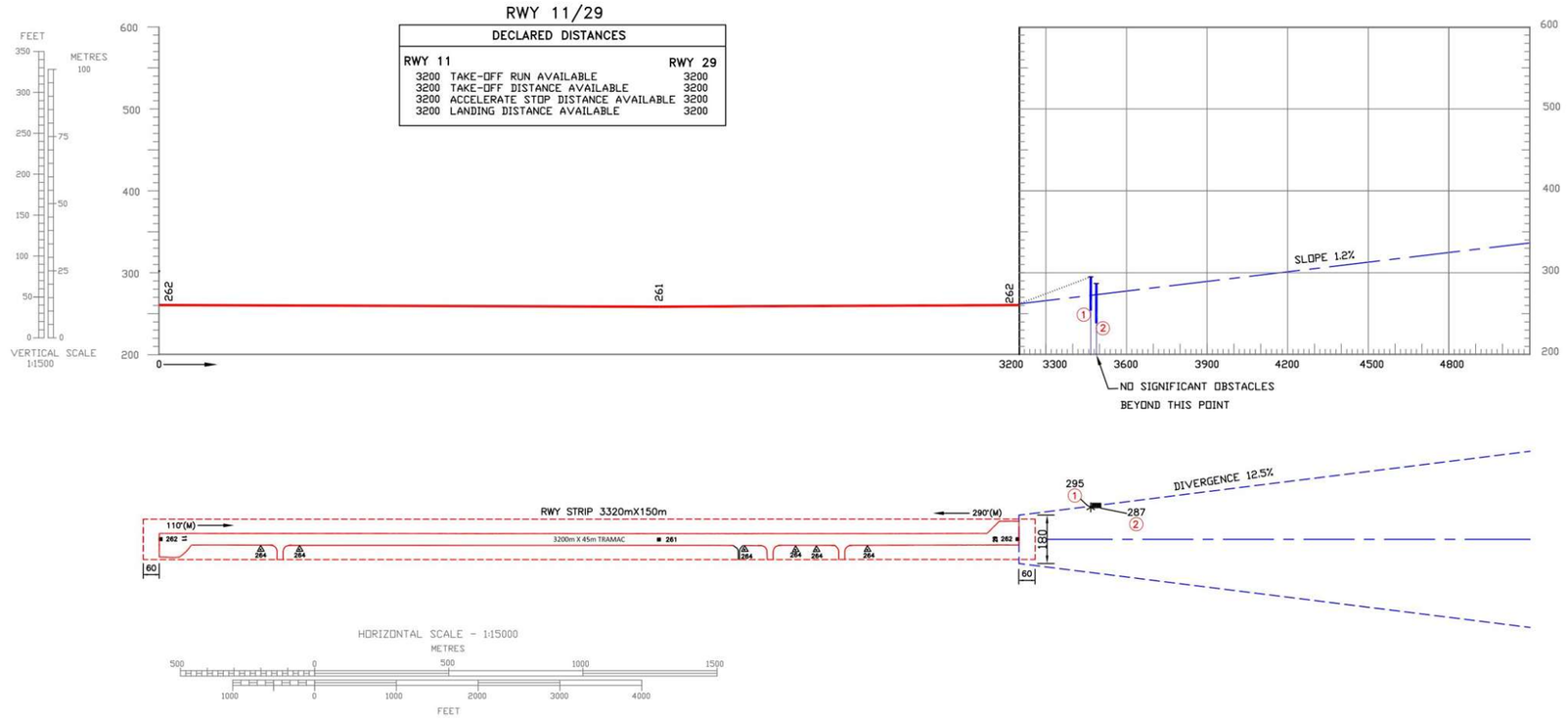
TYPE –A (OPERATING LIMITATIONS)

INDIA/KUSHINAGAR
KUSHINAGAR AIRPORT/RWY 11

MAGNETIC VARIATION–1°E,(2010)

RWY 11/29

DECLARED DISTANCES		
RWY 11		RWY 29
3200	TAKE-OFF RUN AVAILABLE	3200
3200	TAKE-OFF DISTANCE AVAILABLE	3200
3200	ACCELERATE STOP DISTANCE AVAILABLE	3200
3200	LANDING DISTANCE AVAILABLE	3200



LEGEND	PLAN	PROFILE
IDENTIFICATION NUMBER	①	①
TREE OR SHRUB	*	
BUILDING OR LARGE STRUCTURE	■	
SIGN BOARD	▲	

ORDER OF ACCURACY
HORIZONTAL - 3.0m
VERTICAL - 1ft.

APP-29

S.No.	UID	UUID	OBJECT	ELEV Ft.
1	-	VEKI_6079	GROUP OF TREE	295
2	5022	VEKI_5099	BUILDING, PIPE	287

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–08.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic) (In degree minute : Rwy 11/29 = 110.28'/290.28')(2010) (In degree minute : Rwy 11/29 = 128'15'/290'15')(2023)
6. Magnetic variation rounded to nearest degree–.1°E, Annual rate of change 01'E(2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey AUG.–2023.
8. Chart prepared based on DGCA CAR Section 9AS & ATM series 'G' Part–1.

AMENDMENT RECORD		
No.	Date	DESCRIPTION

AERONAUTICAL INFORMATION UPTO NOV. 2023
वैमानिक सूचना - नवंबर 2023 तक

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA
संग्रहित किया : कार्टो, भारतीय विमानपत्तन प्राधिकरण

CHART No.AAI/47–OBS/CARTO/2023
चार्ट सं. भा.वि.प्रा./47-अव/कार्टो/2023

Airports Authority of India

AMDT 03/2025

PUBLISHED MAP ATLAS

KBK | VEKI-AOCTA-RWY-29

Existing / obstacles | AAI AIM | Original PDF page 1

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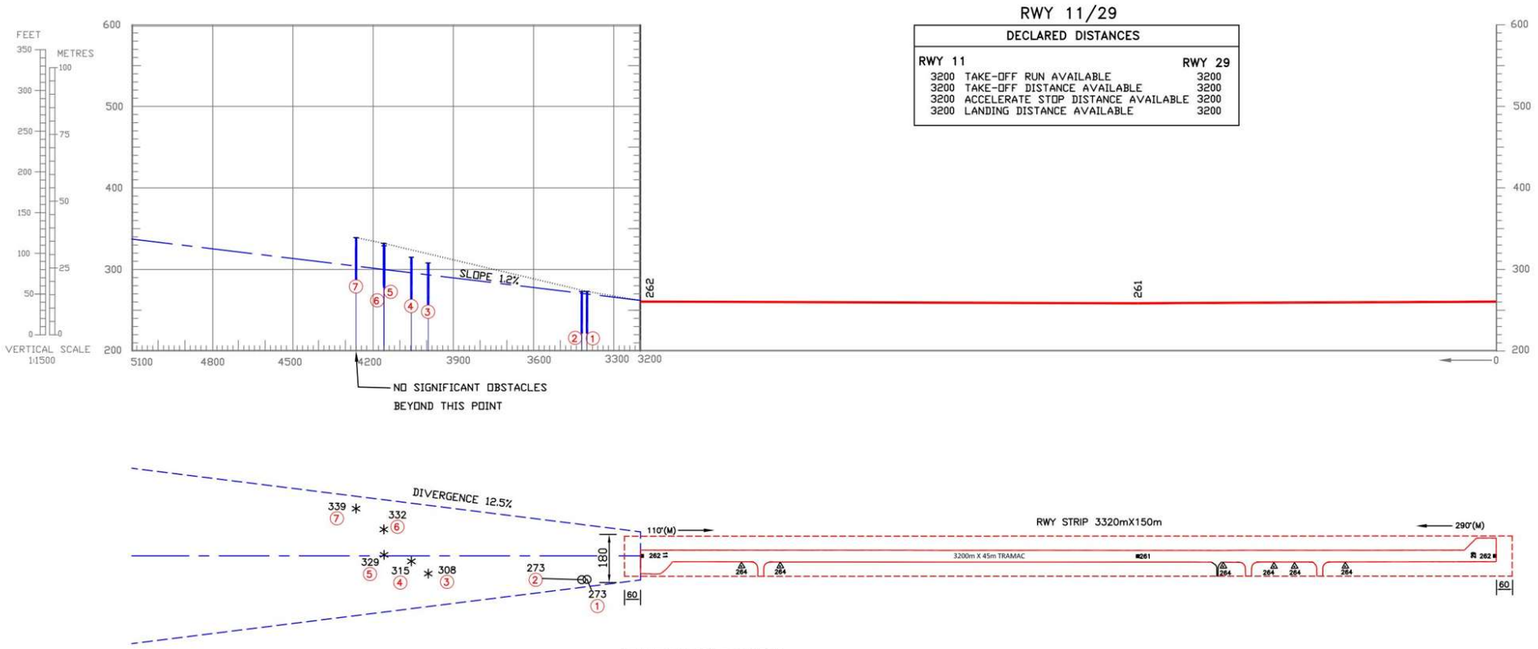
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ELEVATIONS IN FEET AND EGM–08
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART
TYPE –A (OPERATING LIMITATIONS)

INDIA/KUSHINAGAR
KUSHINAGAR AIRPORT/RWY 29

MAGNETIC VARIATION–1°E,(2010)



RWY 11/29

DECLARED DISTANCES

RWY 11		RWY 29
3200	TAKE-OFF RUN AVAILABLE	3200
3200	TAKE-OFF DISTANCE AVAILABLE	3200
3200	ACCELERATE STOP DISTANCE AVAILABLE	3200
3200	LANDING DISTANCE AVAILABLE	3200

LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	①	
POLE,TOWER,SPIRE,ANTENNA ETC.	⊙	
TREE OR SHRUB	*	
SIGN BOARD	⚠	①

ORDER OF ACCURACY
HORIZONTAL – 3.0m
VERTICAL – 1ft.

APP-11

S.No.	UUID	OBJECT	ELEV Ft.
1	VEKI_7044	LIGHT POLE	273
2	VEKI_7045	LIGHT POLE	273
3	VEKI_6074	GROUP OF TREE	308
4	VEKI_6072	GROUP OF TREE	315
5	VEKI_6069	GROUP OF TREE	329
6	VEKI_6068	GROUP OF TREE	332
7	VEKI_6070	GROUP OF TREE	339

NOTES:–
1. The objects that have been shielded due to presence of other higher objects have not been shown in this chart.
2. Datum – All Elevations are in EGM–08.
3. Periphery road without traffic is no obstacle.
4. Consult Notam for latest information.
5. Rwy directions rounded to nearest degree.(Magnetic)
   (In degree minute : Rwy 11/29 = 110.28°/290.28°)(2010)
   (In degree minute : Rwy 11/29 = 128°15'/290°15')(2023)
6. Magnetic variation rounded to nearest degree–.1°E, Annual rate of change 01°E(2010).
7. All obstacles shown in this chart are based on aeronautical obstacle Survey AUG.–2023.
8. Chart prepared based on DGCA CAR Section 9AS & ATM series 'G' Part–1.

AMENDMENT RECORD

No	Date	DESCRIPTION

AERONAUTICAL INFORMATION UPTO NOV. 2023
वैमानिक सूचना - नवंबर 2023 तक

COMPILED BY– CARTO, AIRPORTS AUTHORITY OF INDIA
संग्रहित किया : कार्टो, भारतीय विमानपत्तन प्राधिकरण

CHART No.AAI/RCS/48–OBS/CARTO/2023
चार्ट सं. भा.वि.प्रा./48-अव/कार्टो/2023

PUBLISHED MAP ATLAS

ATQ | ATQ AAI PPT 2025 - PDF 24

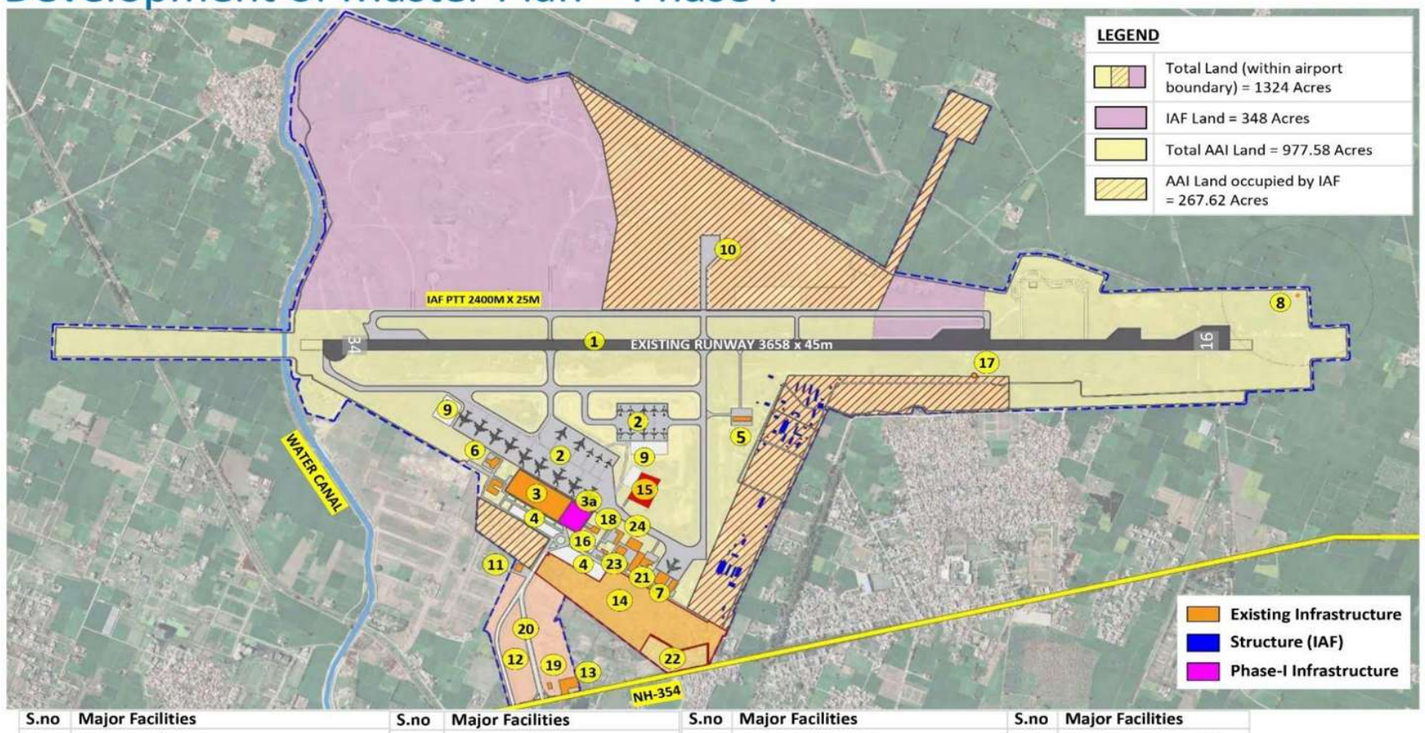
AAI future plan | AAI submission hosted by AERA | Original PDF page 24

8 Jan2025 AAI proposal; phase-I drawing labelled approved by AAI. Current revision, completion and PPP responsibility unverified. Retrieved 3 November 2026; chart date/revision as printed

Open original PDF, page 24

APPROVED MASTER PLAN FOR PH-I

Development of Master Plan – Phase-I



S.no	Major Facilities	S.no	Major Facilities	S.no	Major Facilities	S.no	Major Facilities
1	Runway 16/34 3658x45m	7	Cargo Terminal	14	AAI Residential Colony	21	Amritsar Aviation club
2	Apron for 10 Code-E, 2 Code-D, 13 Code-C	8	DVOR	15	Gurudwara Baba Jawandh Singh Ji	22	IAF Residential Colony
3	Existing Terminal Building	9	GSE Area	16	Gurudwara Parking	23	Police Station
3a	Expansion of Terminal Building (PH-I)	10	Isolation Bay	17	Temple	24	Aviation fuel station (AFS)
4	Car Park	11	BCAS OFFICE	18	Male CISF Barrack		
5	Fire Station	12	Land for Airport Support Infra.	19	Female CISF Barrack		
6	ATC Tower	13	State Govt. Power grid/house	20	Approach Road 60M ROW		

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SGRDJI AIRPORT AMRITSAR



S.no	Major Facilities
1	Runway 16/34 3658x45m
2	Apron for 5 Code-E, 38 Code-C
2a	Phase II Apron
2b	Future Apron
3	Existing Terminal Building
3a	Expansion of Terminal Building (PH-I)

S.no	Major Facilities
3b	Phase II Terminal Building
3c	Future Terminal Building
4	Car Park
5	Fire Station
6	ATC Tower
7	Cargo Terminal
8	DVOR

S.no	Major Facilities
9	GSE Area
10	Isolation Bay
11	BCAS OFFICE
12	Land for Airport Support Infra.
13	State Govt. Power grid/house
14	AAI Residential Colony
15	Gurudwara Baba Jawandh Singh Ji

S.no	Major Facilities
16	Parallel Taxi Track
17	RET
18	MLCP
19	General Aviation
20	CISF Residential colony

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Chairman AAI
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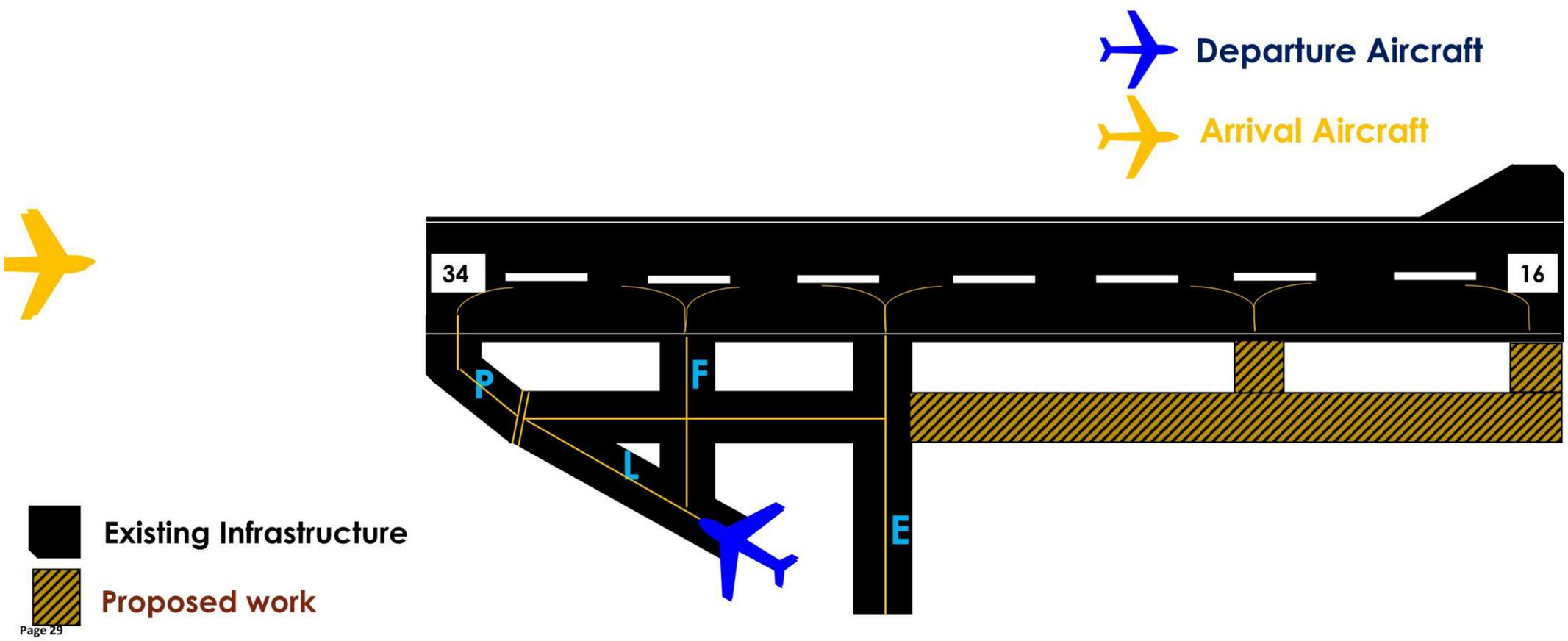
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A/c operation with proposed Link and PTT



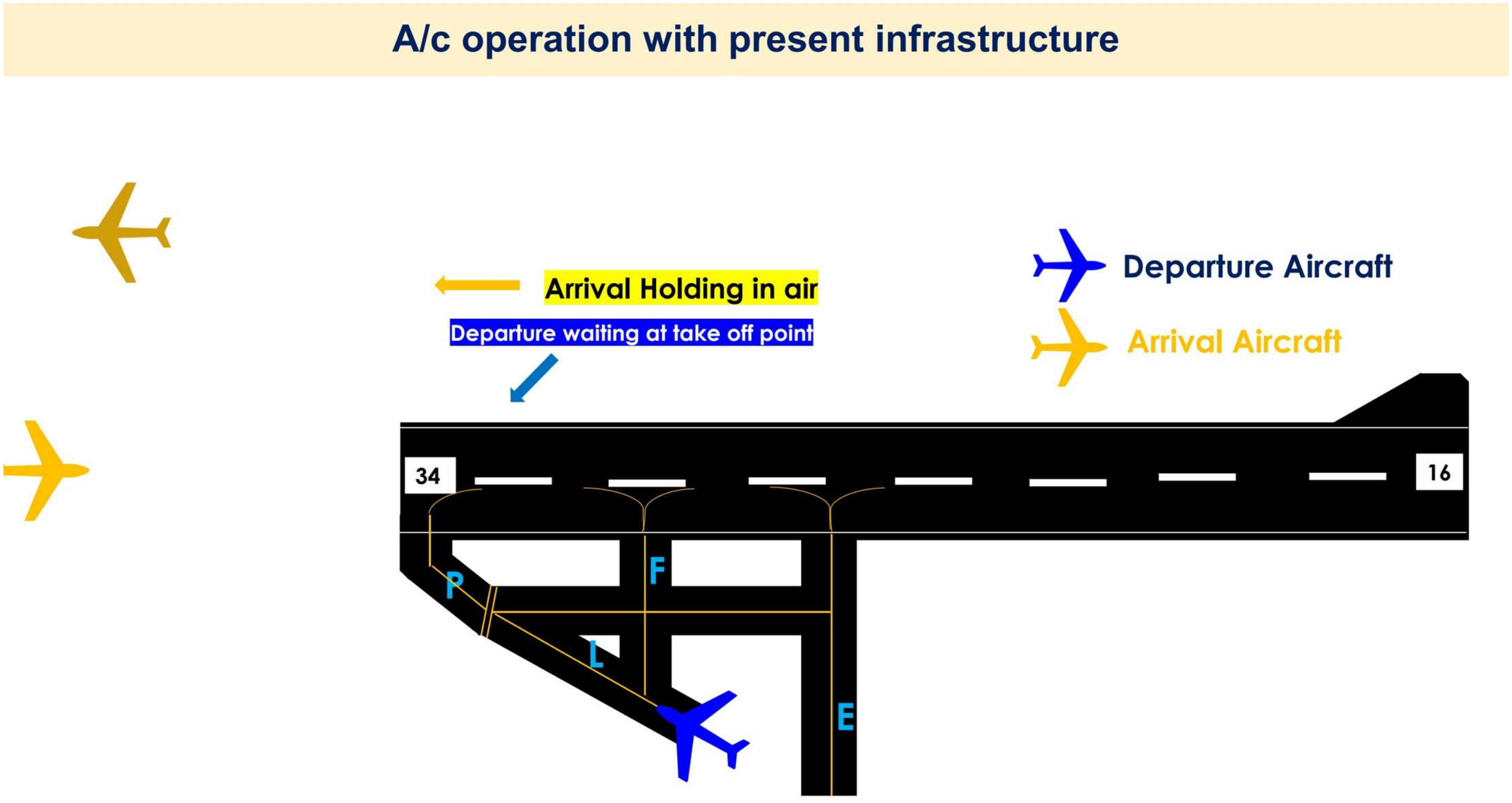
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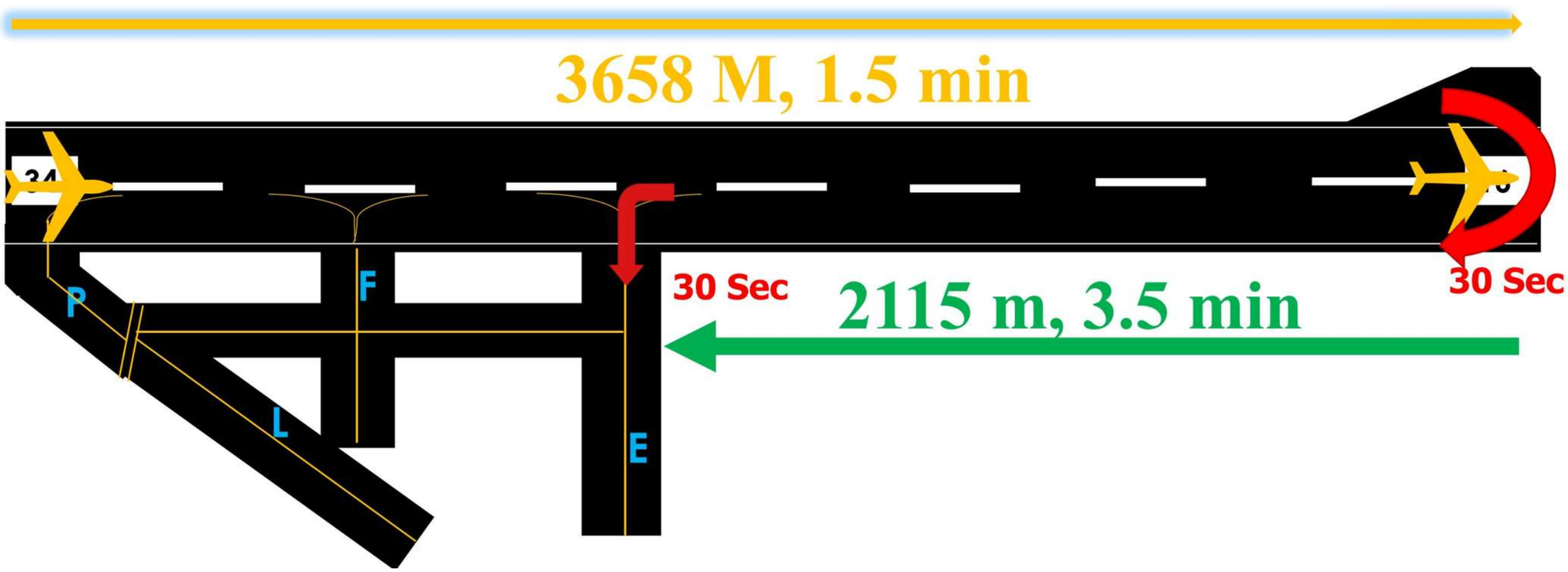
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Back track requirement on Rwy 34

Approximate Rwy Occupancy time for arrival aircraft – 6 min.



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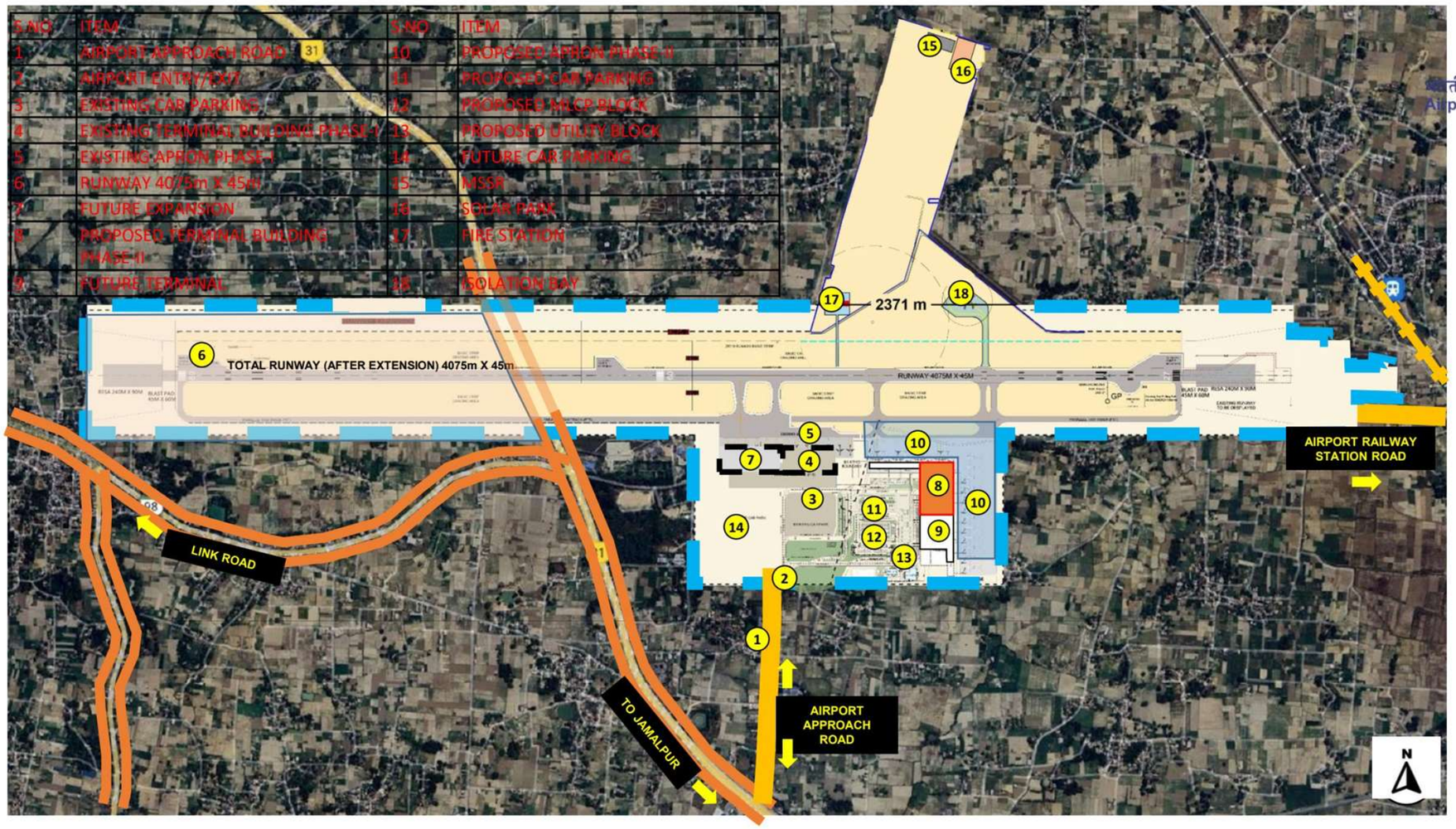
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MASTER PLAN

S.NO	ITEM	S.NO	ITEM
1	AIRPORT APPROACH ROAD	10	PROPOSED APRON PHASE-II
2	AIRPORT ENTRY/EXIT	11	PROPOSED CAR PARKING
3	EXISTING CAR PARKING	12	PROPOSED MLCP BLOCK
4	EXISTING TERMINAL BUILDING PHASE-I	13	PROPOSED UTILITY BLOCK
5	EXISTING APRON PHASE-I	14	FUTURE CAR PARKING
6	RUNWAY 4075m X 45m	15	MSSR
7	FUTURE EXPANSION	16	SOLAR PARK
8	PROPOSED TERMINAL BUILDING PHASE-II	17	FIRE STATION
9	FUTURE TERMINAL	18	ISOLATION BAY

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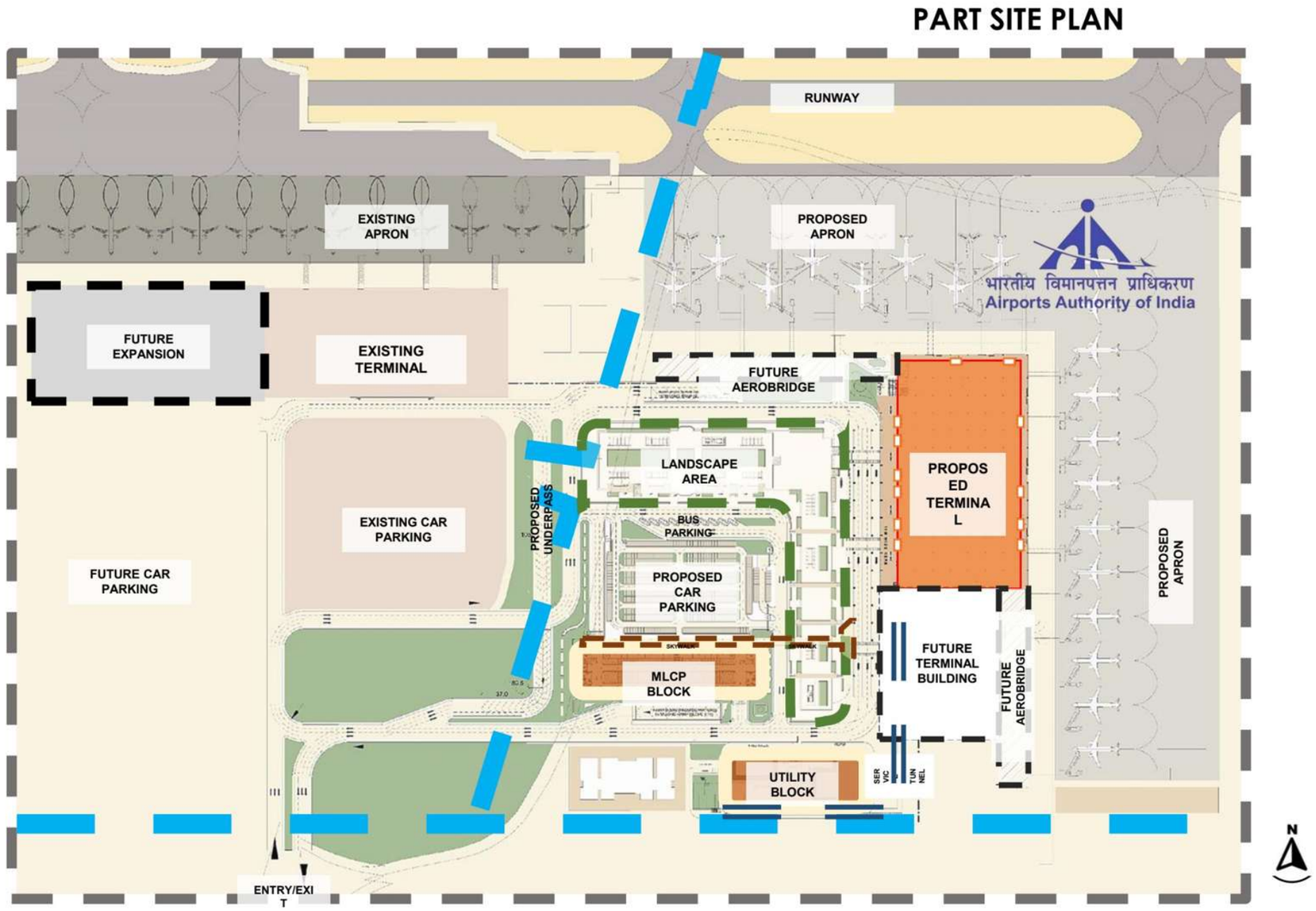
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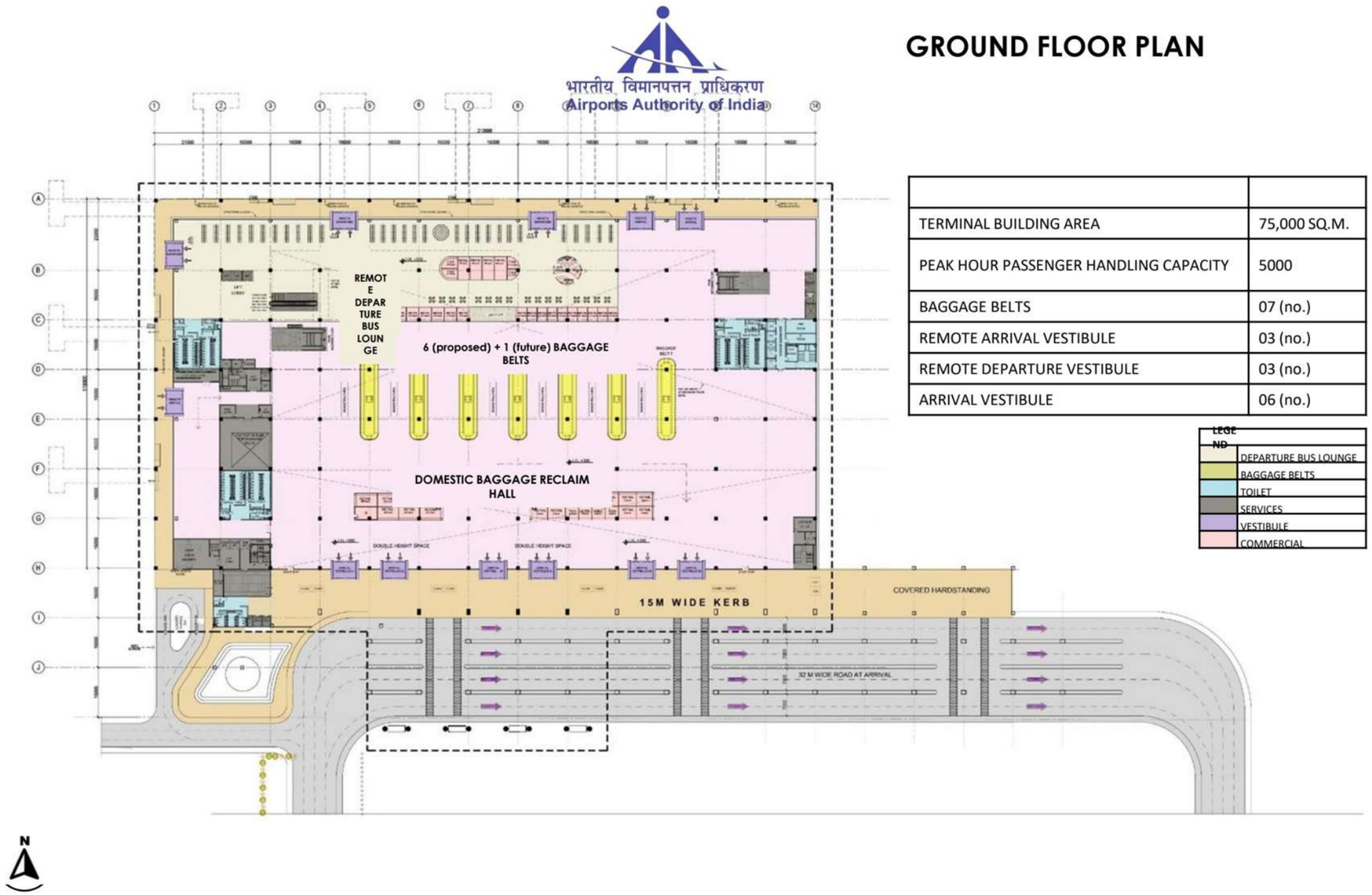
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TERMINAL BUILDING AREA	75,000 SQ.M.
PEAK HOUR PASSENGER HANDLING CAPACITY	5000
BAGGAGE BELTS	07 (no.)
REMOTE ARRIVAL VESTIBULE	03 (no.)
REMOTE DEPARTURE VESTIBULE	03 (no.)
ARRIVAL VESTIBULE	06 (no.)

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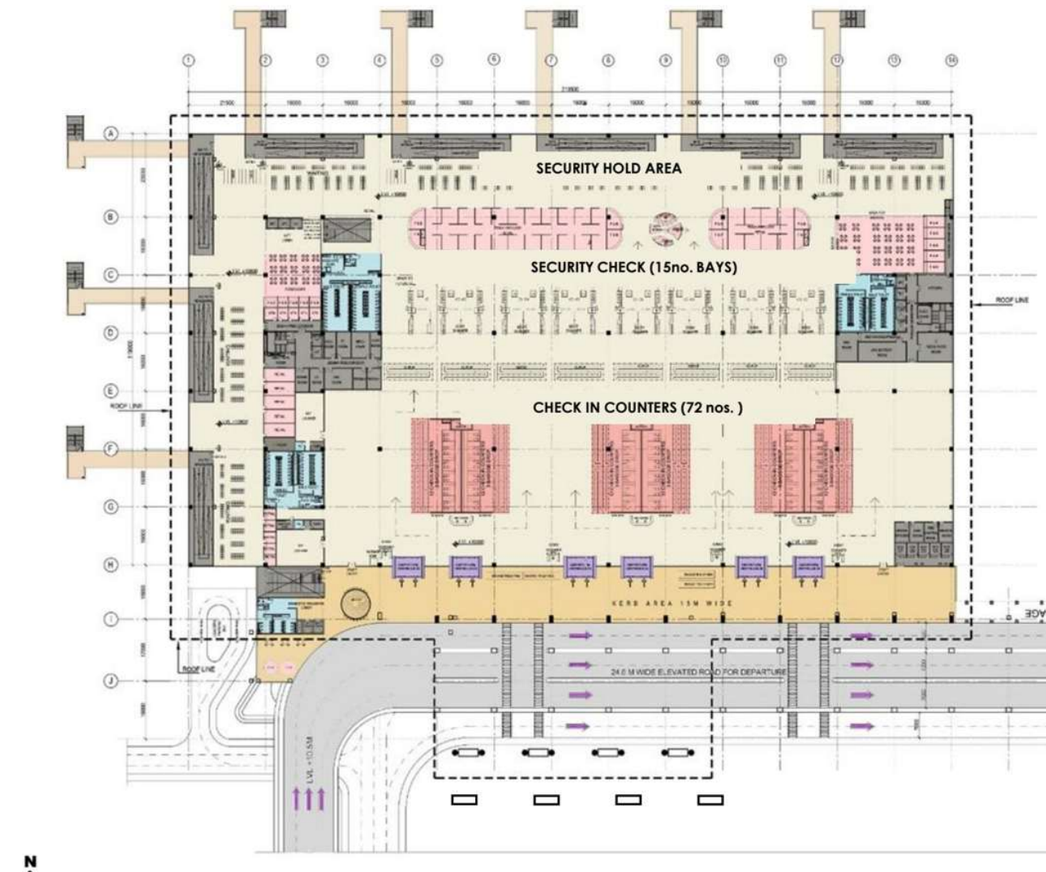
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FIRST FLOOR PLAN



TERMINAL BUILDING AREA	75,000 SQ.M.
PEAK HOUR PASSENGER HANDLING CAPACITY	5000
CHECK-IN COUNTERS	72 (no.)
X-BIS	15 (no.)
FIX FINGERS	08 (no.)
RAMPS	08 (no.)
DEPARTURE VESTIBULE	06 (no.)

LEGEND	
	CHECK IN COUNTERS
	COMMERCIAL
	TOILET
	SERVICES, STAIRS AND RAMPS
	VESTIBULES

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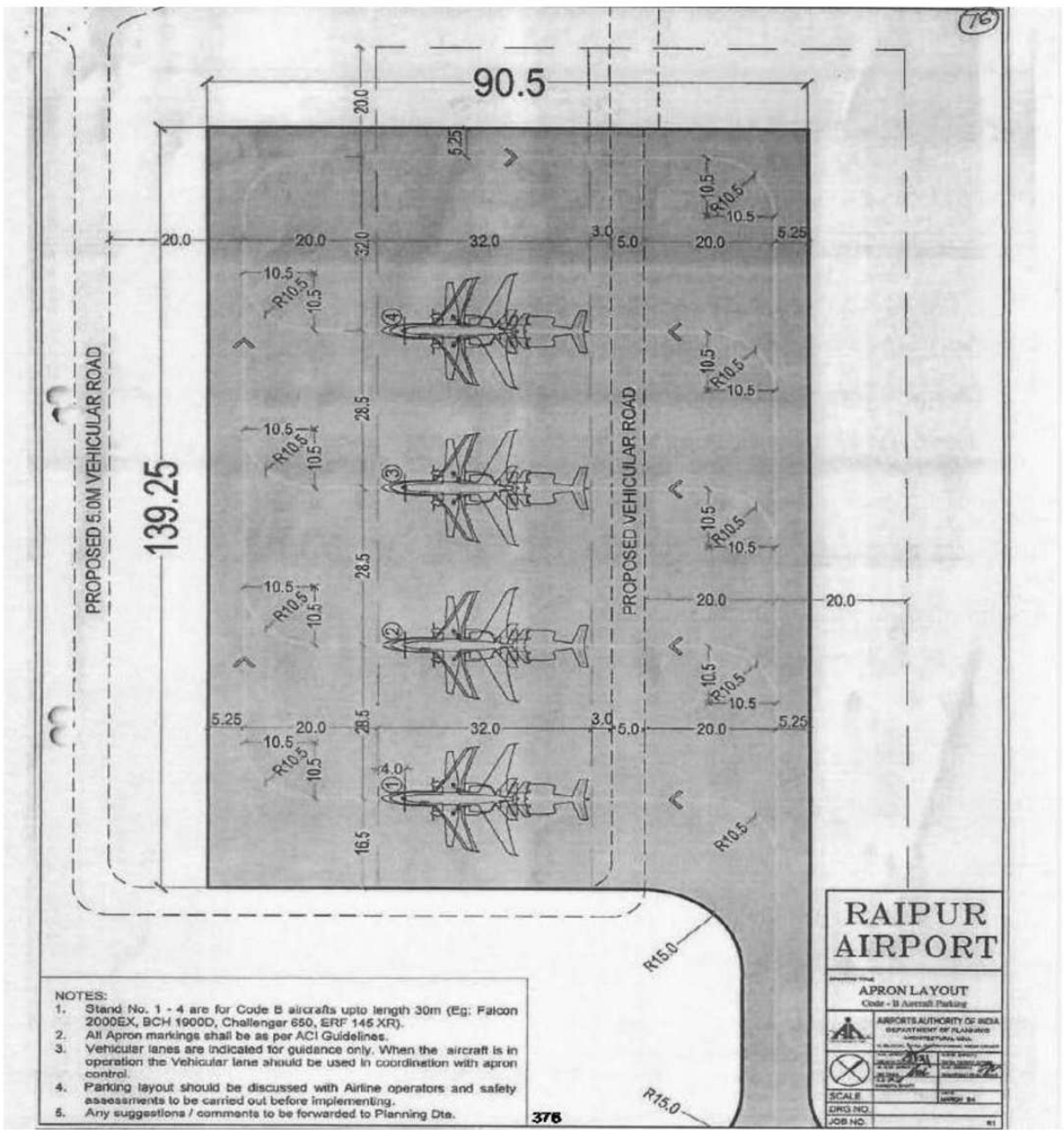
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obstructing the alignment of the proposed Parallel Taxi Track (PTT) on the North-East side of the main runway. It is inferred that unless the village is re-located, it would not be feasible to construct or commission the PTT (approx. 1500 m in length), the Rapid Exit Taxiway (RET) at Runway 24 and the associated ancillary works (Refer figure 2 for Master Plan). Normally, to avoid infructuous expenditure, it is essential to ensure availability of the land (without any hinderance), prior to the commencement of the project work. The Authority understands that the State Government had agreed to acquire the required land (approx. 6 acres) and rehabilitate the affected villagers. While the land acquisition process has been completed, the rehabilitation work has not progressed. Due to the above factors, it has been assessed that the implementation of approximately 30% of the planned works would be affected.

Figure 1: Proposed Apron Layout of Raipur Airport



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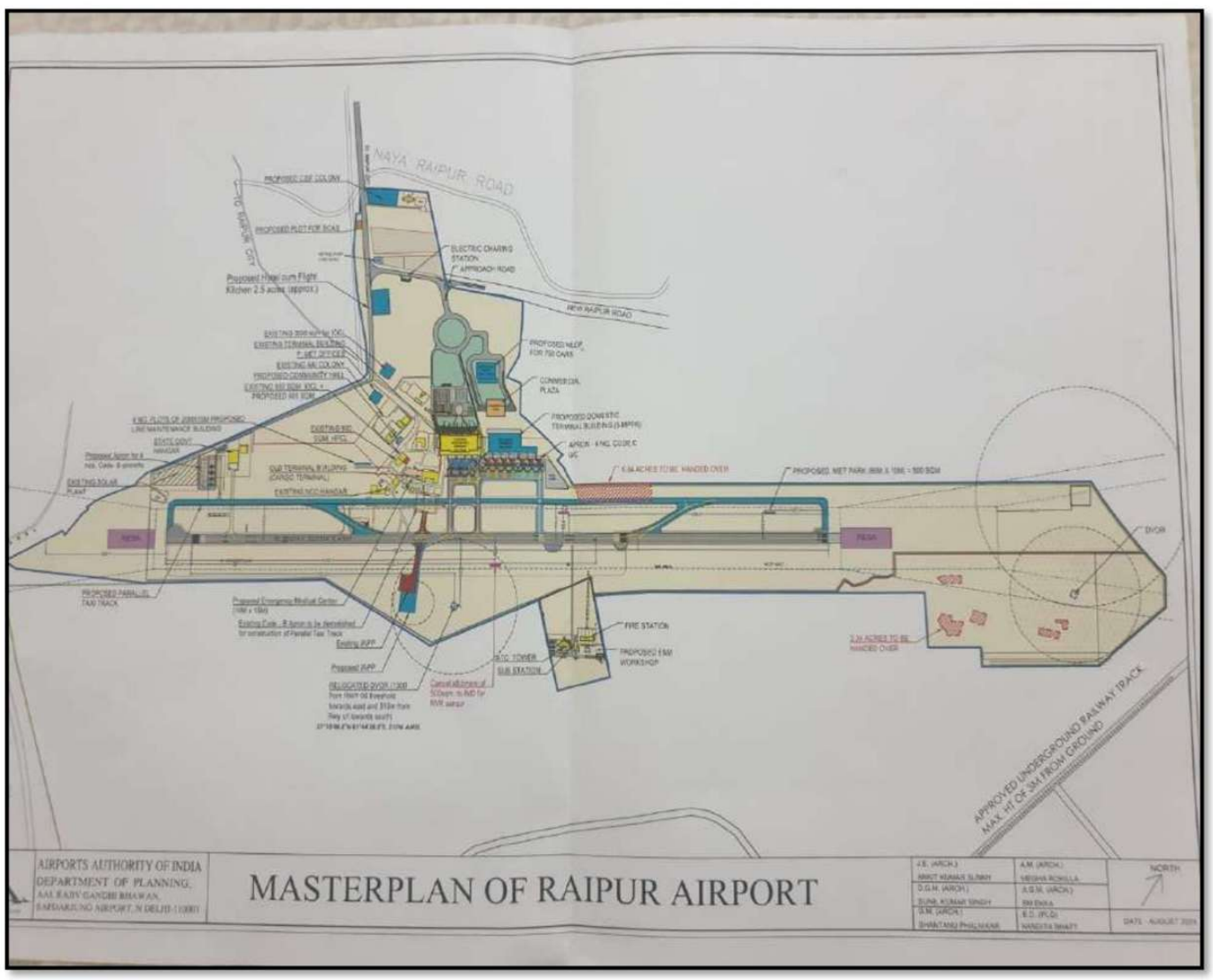
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Figure 2: Master Plan of Raipur Airport



Due to the constraints in executing the project on PTT at the North-East side of the main Apron, as mentioned above, it is assessed that the execution of the following works would also be impacted. The costs, as derived from the detailed estimate, are as follows:

Table 39: Cost derived for the PTT work under execution limitations as per the Authority

Particulars	Amount (in ₹ Crores)
PTT of approx. 1500 m length and one RET	24.66
Grading for the basic strip	5.36
Perimeter road in the affected area	0.65
Perimeter wall in the affected area	0.76
Dismantling of existing wall	0.13
Electrical works for part PTT and one RET*	3.34*
Total	**34.90**

**Cost of hindered electrical works has been worked out as 30% of the cost of total electrical works i.e 30% of Rs 11.14cr = Rs 3.34cr.*

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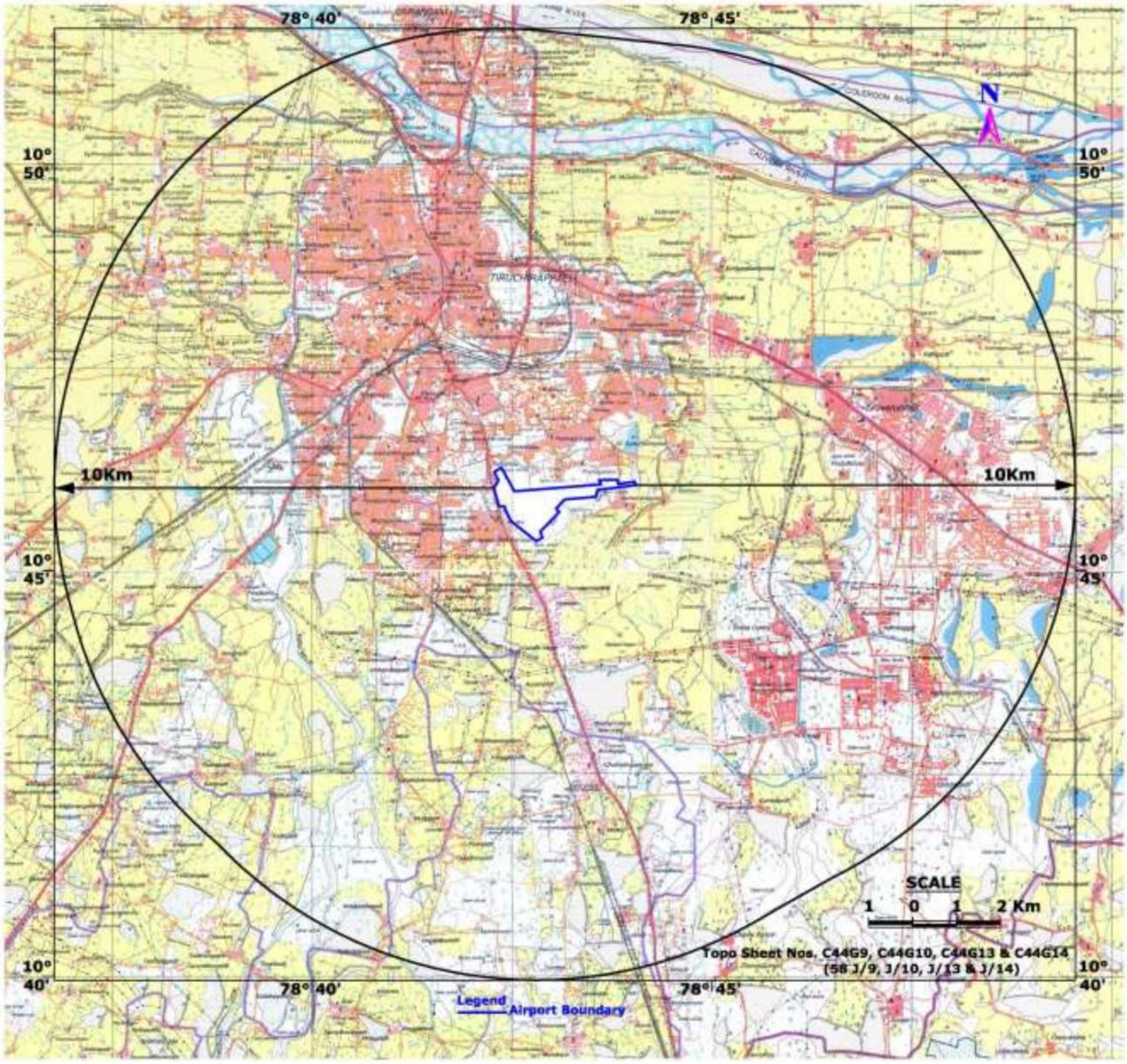
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ANNEXURE-I
STUDY AREA MAP



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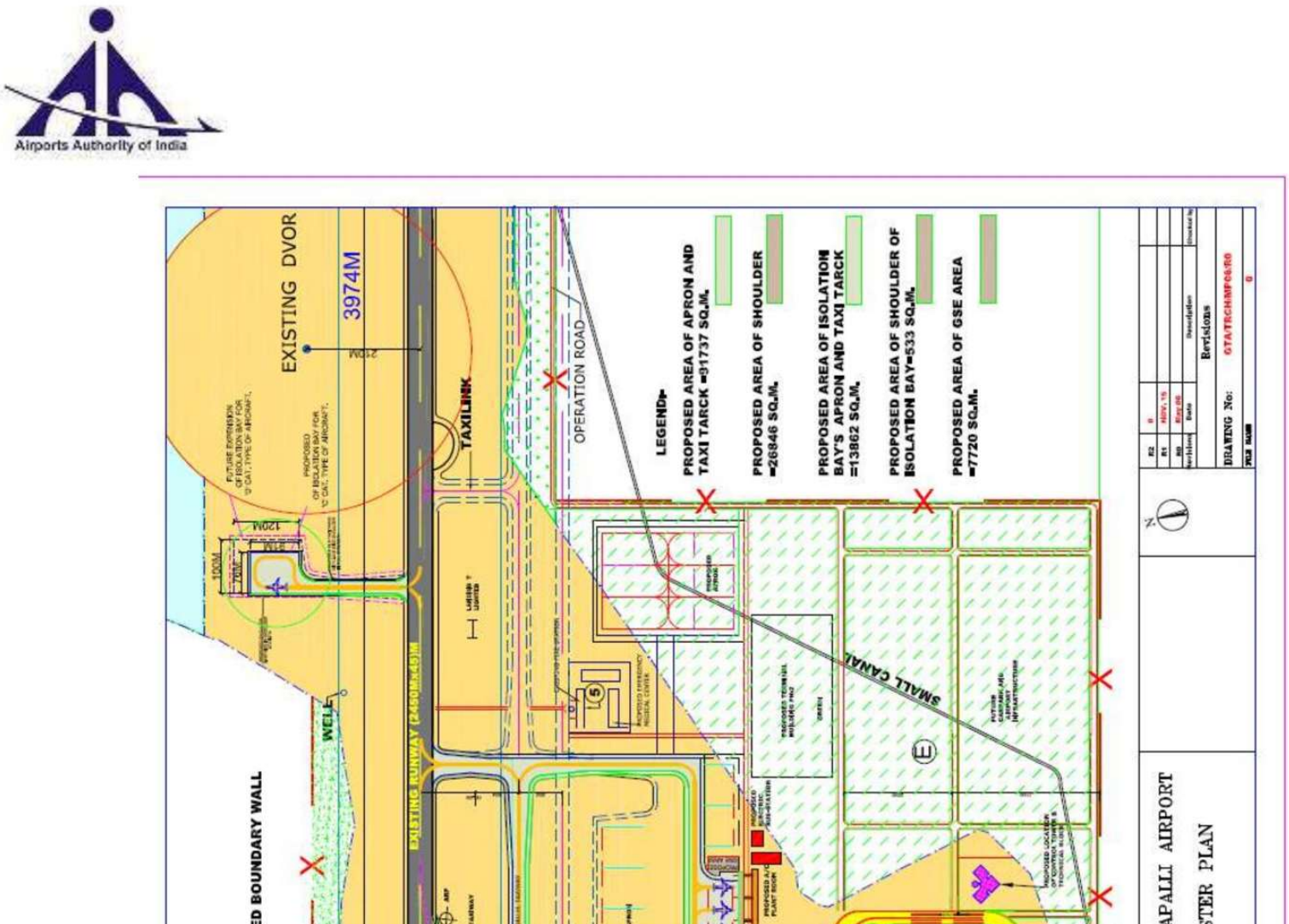


FIGURE-2
AIRPORT EXTENSION LAYOUT

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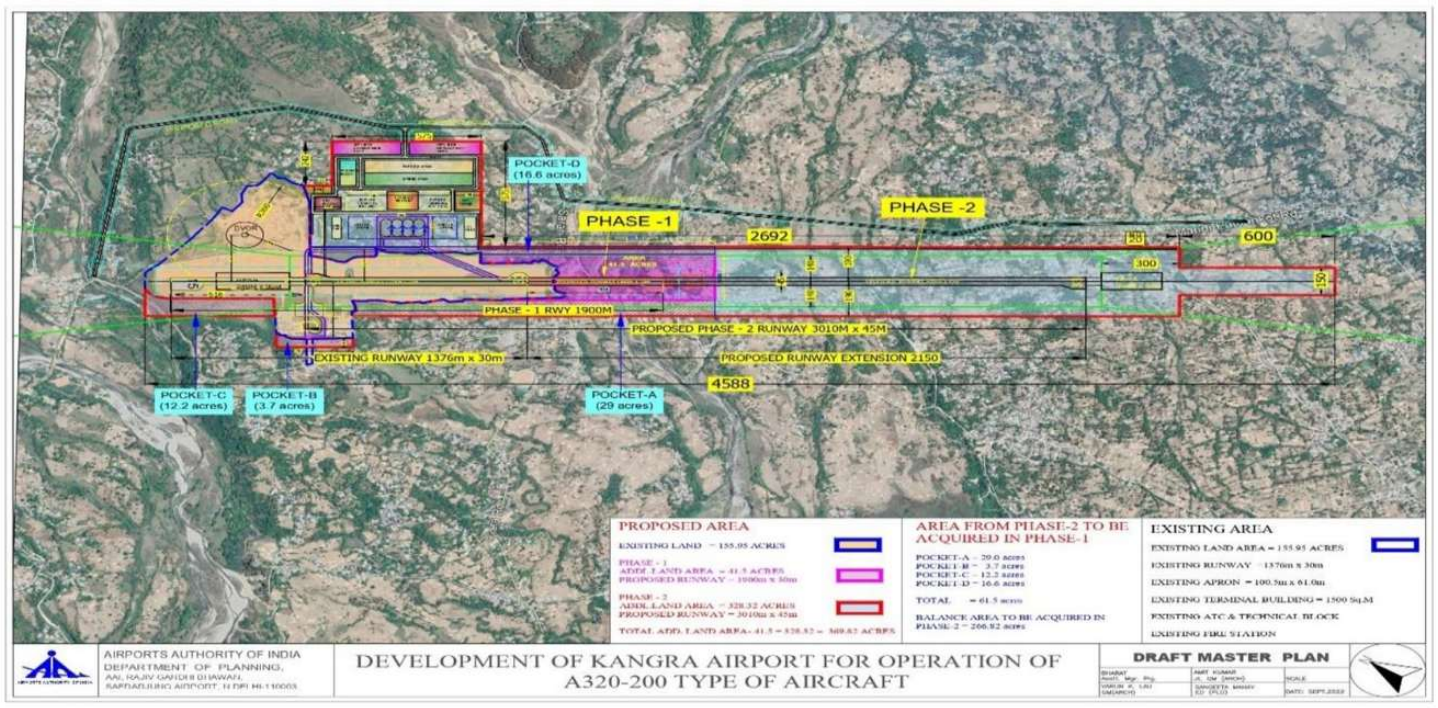
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A total of Rs 400 crore was recommended by the Fifteenth Finance Commission for the expansion of Kangra Airport, which has been approved by the Central Government. The airport, spread over 1,269 acres (514 hec.) at an elevation of 2,492 feet (760 m), has one asphalt runway, oriented 15×33, measuring 1,372 by 30 meters (4,501 by 98 ft). Its 91 by 61 m (300 by 200 ft) apron provides parking space for two turboprop aircraft such as the ATR 72 and Dash 8 Series 400, while its terminal building can handle 100 passengers, 50 in the arrivals area and 50 in departures. Due to its short runway as well as the high altitude, the airport has load penalties and does not allow aircraft to take off at full capacity, leading to low utilization and high airfares on this route.





Gaggal airport will be expanded by laying a concrete bridge over Manjhi Khad in Kangra district of Himachal Pradesh. The team of Aviation Authority of India Central Water and Power Research

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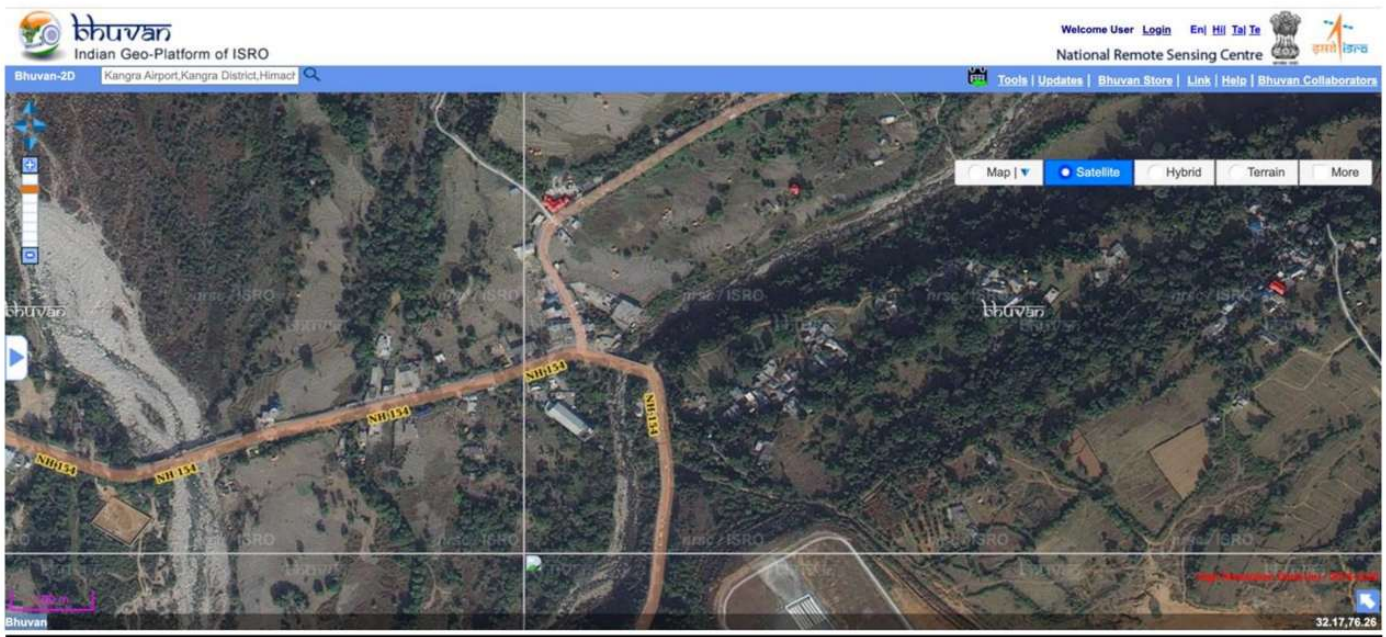
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not give land for the expansion of the airport, so why should we give interviews?" But after persuading the people of the panchayat, only 15 percent of the family members of Gaggal Khas Panchayat have taken SIA. A total of 399 (34.04 per cent) families of the affected village were interviewed by the team. The SIA team went door-to-door and collected interview/data from about 34 percent people through questionnaire and collected the arguments shared by the crowd gathered during protest against the problems of other affected families, The protest letter shared by the affected families has also been assessed by DC Kangra, as well as the reactions related to the expansion of the airport by the public and various institutions over the past several years have been observed through research by the SIA team. From the observation it is found that the affected families are not at all ready to give land for a suitable project under any circumstances. The concerns, issues and suggestions raised by the affected stakeholders have been incorporated in this study.

Proposed site as per current proposal



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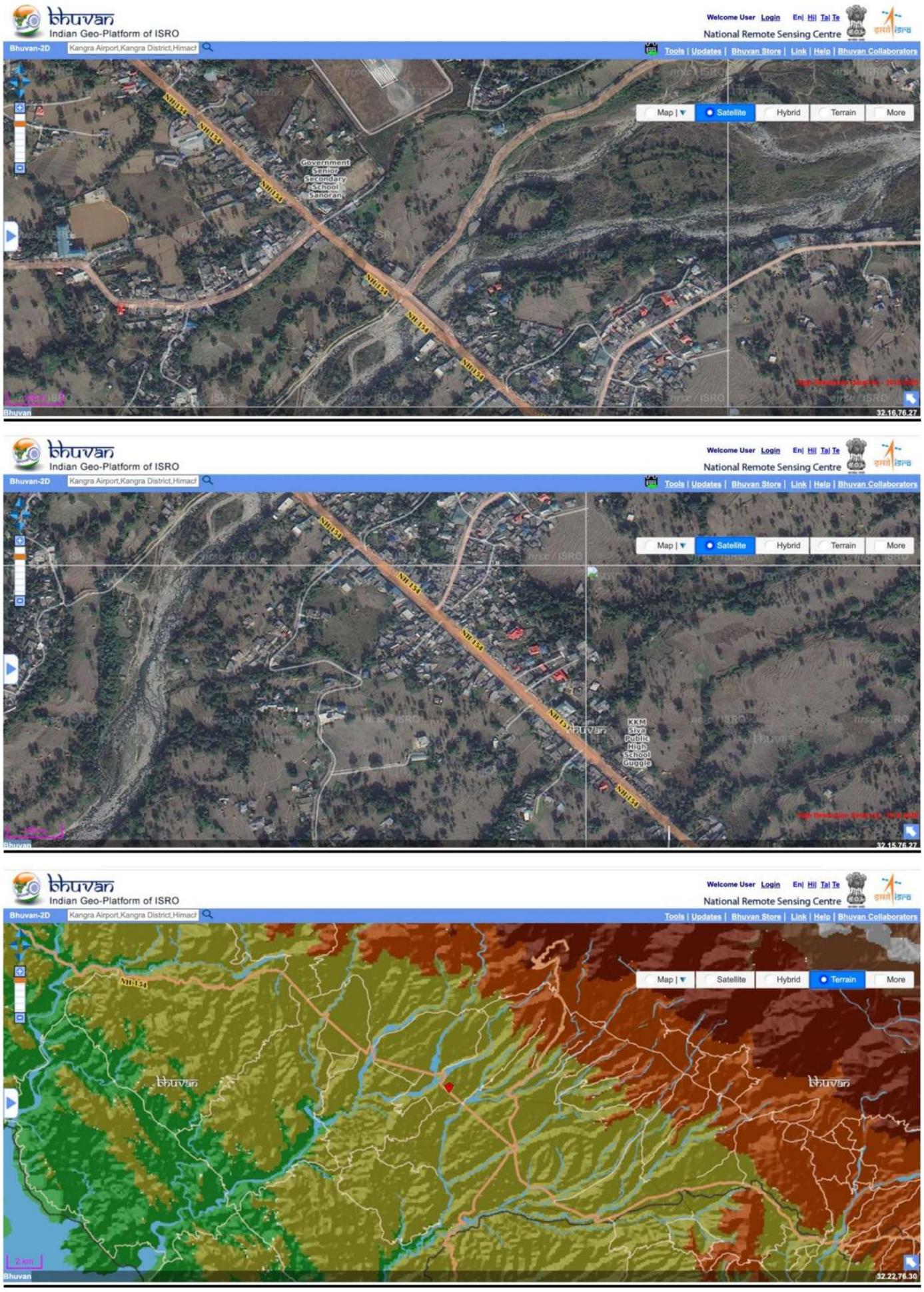
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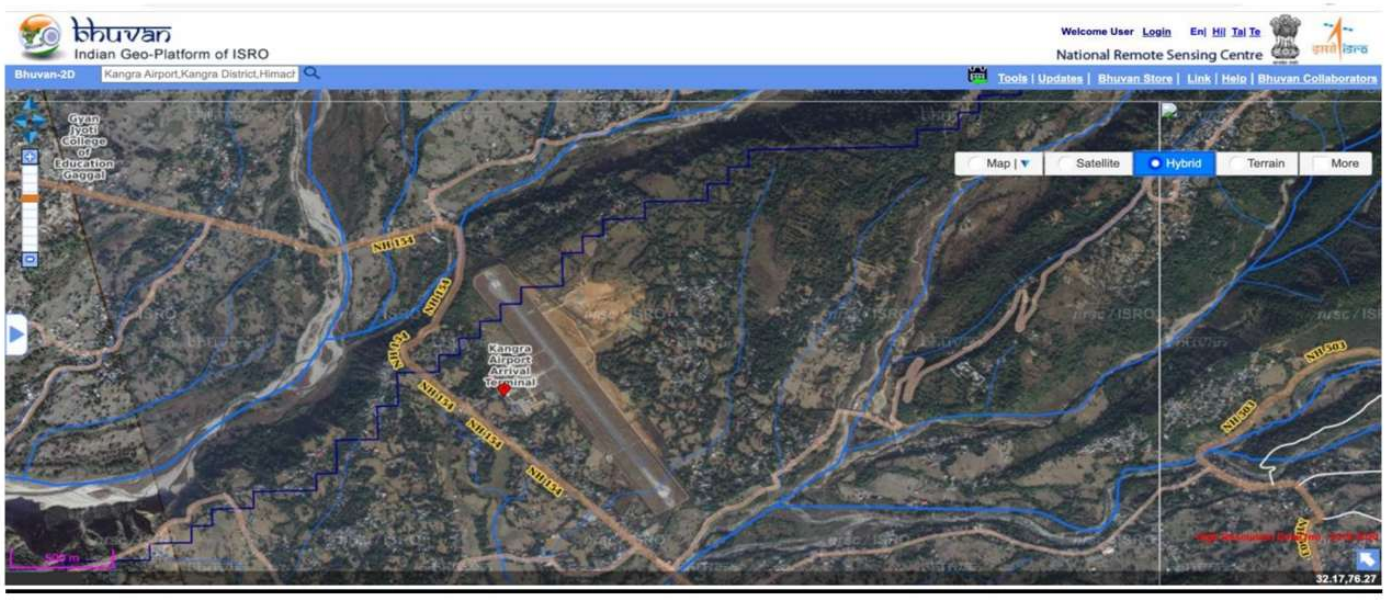
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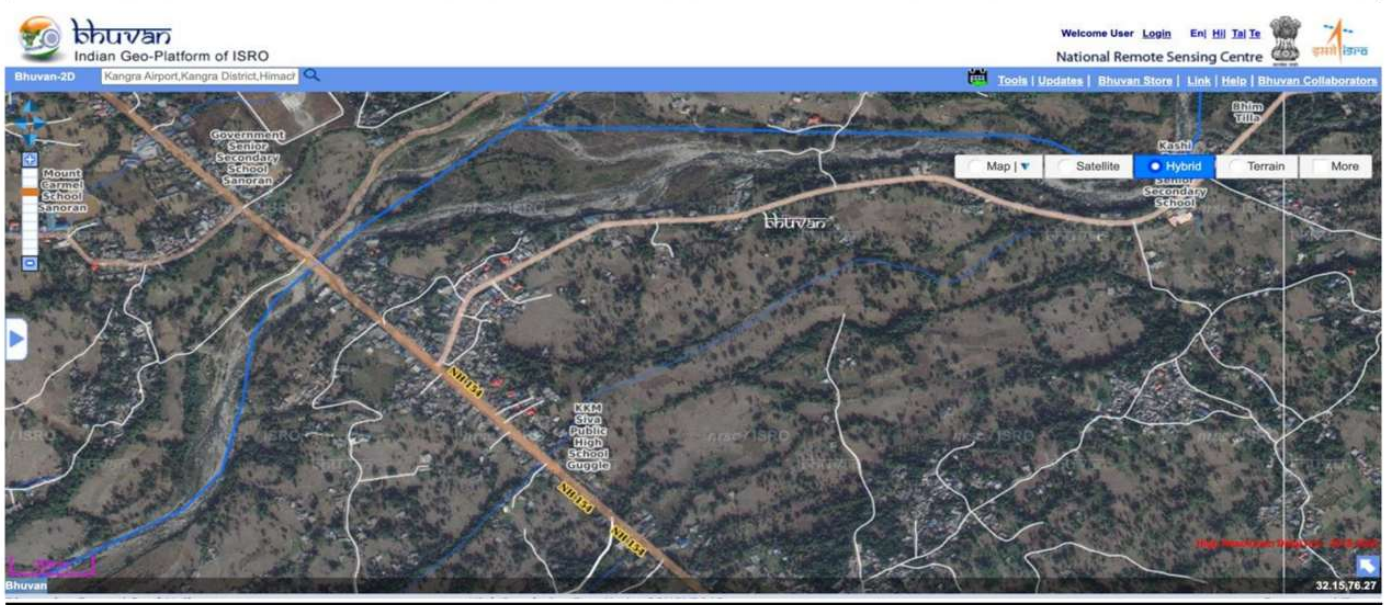
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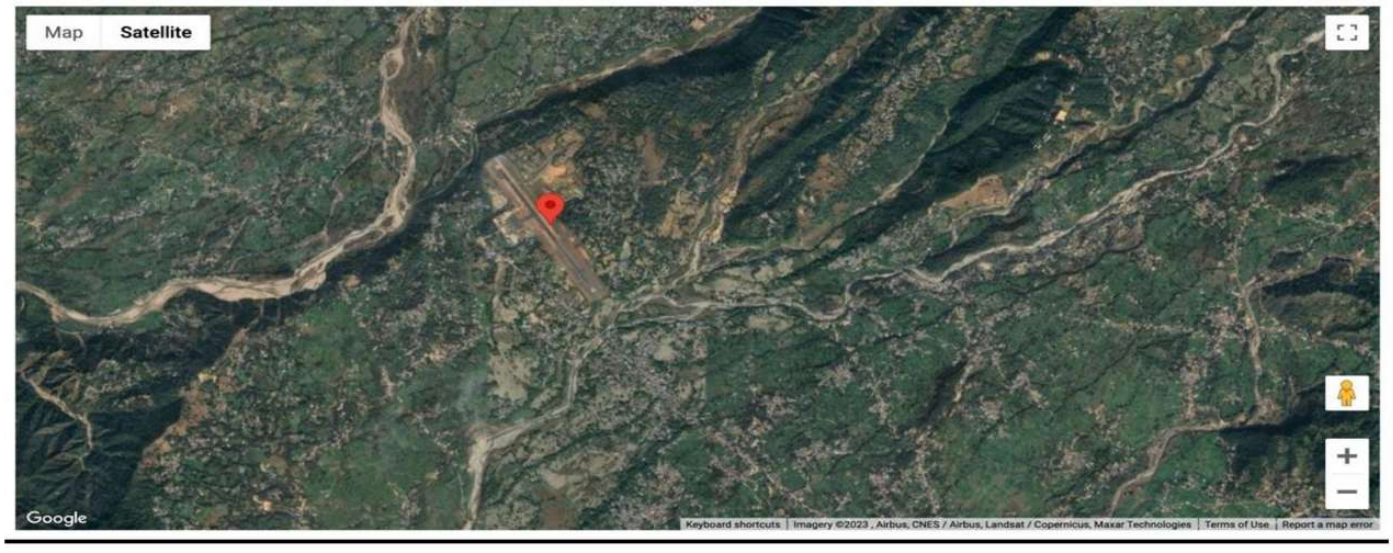
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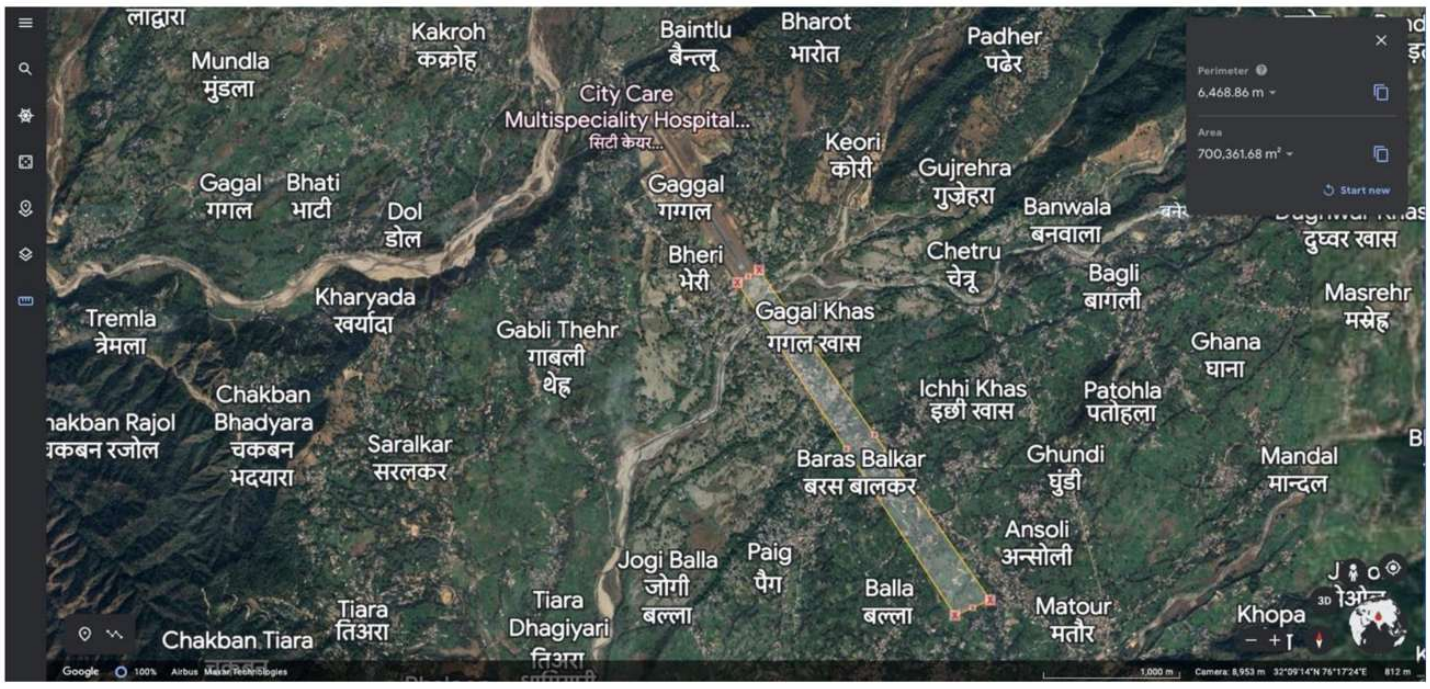
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