

#### DIRECT ANSWER

Airfield pavement condition assessment is a surveyed rating of runway, taxiway and apron surfaces. TarmacView flies the pavement by drone, classifies each distress by type, severity and extent, computes a Pavement Condition Index proxy per section against ASTM D6433 categories, and returns a ranked repair list with every finding georeferenced.

● ● ○ ○ PAVEMENT ASSESSMENT · ASTM D6433

## A rating per section, not a folder of photographs

The scan finds the distress. The assessment is what turns thousands of located defects into a condition rating per section and a repair list in the order the money should be spent.

Scope an assessment

How the visit works

0–100

condition scale of the reported proxy

19 + 15

|                                                                                    |                                                               |
|------------------------------------------------------------------------------------|---------------------------------------------------------------|
|                                                                                    | asphalt and concrete distress types in<br>ASTM D6433          |
| <b>RTK <math>\pm 1</math> cm</b><br>position carried by every recorded<br>distress | <b>per section</b><br>rating and repair priority are reported |

FIT

## Who this is for

This service is bought by the person who has to answer two questions in the same meeting. What condition is the pavement in, and which sections get money this year. It fits an asset manager who already runs a pavement management system and needs a condition input that arrives in the same shape every year.

FOR

- ✓ Aerodrome operators who owe their authority a documented pavement condition record and currently rebuild it by walking the surface.
- ✓ Airport engineering and maintenance managers deciding which sections to treat this budget year and which can wait.
- ✓ Asset managers who already run a pavement management system and need a repeatable condition input for it.

#### NOT FOR

- × Projects that require a formal ASTM D6433 or D5340 survey signed by a certified inspector, such as federally funded rehabilitation work.
- × Structural capacity questions, which need bearing strength testing rather than a surface condition rating.
- × Aerodromes wanting only raw imagery, which is delivered by the runway surface scan product instead.

#### JUDGED ON DELIVERY

## Outcomes and acceptance criteria

Three outcomes are what the service is judged on, and each has a state you can check on delivery rather than a promise you have to trust.

01

### A defensible condition figure per section

Every section you agreed to have assessed comes back

02

### A repair list in priority order

Sections are ordered by condition and by the treatment band they fall into, so the list separates sections

with a Pavement Condition Index proxy on the 0 to 100 scale, the distress inventory the figure was computed from, and the section area it applies to.

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#### ACCEPTANCE

Open any section, and the deduct inputs behind its number are visible.

that still respond to preventive treatment from sections that have passed into rehabilitation.

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#### ACCEPTANCE

Every section on the list carries a reason, not just a rank.

03

### **A baseline the next visit can be compared against**

Section boundaries, distress categories and positions are recorded so that the following assessment reports change rather than a fresh opinion.

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#### ACCEPTANCE

The section identifiers in this report are the identifiers used in the next one.

What the service does not undertake to produce is a treatment design or a cost estimate for the repairs. Those are engineering decisions that belong to your designer and your contractor, and a condition assessment that quietly turns into a works specification is one that

nobody can audit. And it is the wrong purchase if all you want is imagery, because the runway surface scan delivers that on its own.

## SCOPE AND DELIVERABLES

# What is inside the assessment

Each deliverable with the party that owns it and the state it has to reach before the assessment is accepted.

11 PARAMETERS

ASTM D6433 CATEGORIES

### 01 Agreed section map

The network split into branches and sections, with boundaries fixed before capture and reused on every later assessment.

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OWNER TarmacView, signed off by the operator

### 02 Distress inventory

Every detected distress with its type, severity band, extent and surveyed position on the surface.

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OWNER TarmacView

### 03 Condition rating per section

A Pavement Condition Index proxy on the 0 to 100 scale with the distress densities that produced it.

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OWNER TarmacView

#### 04 **Ranked repair list**

Sections ordered by condition and treatment band, each with the distresses that drive its position.

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OWNER TarmacView

#### 05 **Change report**

On a repeat assessment, the rating movement per section and the distresses that grew, appeared or were repaired.

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OWNER TarmacView, from the previous baseline

#### 06 **Export for asset systems**

The section table and distress inventory in the format the receiving pavement management system reads.

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OWNER Format nominated by the operator

#### 07 **Same-day hazard notice**

Anything that reads as an immediate operational hazard, reported on the day of capture rather than with the assessment.

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OWNER TarmacView

#### 08 **Airside access and coordination**

Tower coordination, escort where required, and the movement windows the capture is flown in.

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OWNER Aerodrome operator

#### 09 **Treatment design and costing**

Not included. The assessment says what condition the pavement is in, not what to build.

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OWNER Excluded

#### 10 Structural evaluation

Not included. Bearing strength needs load testing or coring rather than a surface survey.

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OWNER Excluded

#### 11 Friction and texture measurement

Not included. Continuous friction measuring equipment is a separate instrument and a separate visit.

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OWNER Excluded

- Distress categories follow ASTM D6433. The reported index is a visual proxy calibrated against ground-surveyed results and is not a formal ASTM D6433 or D5340 survey.

DELIVERY • 6 STEPS

## From section map to ranked repair list

01

Scoping call

02

Mission build

You name the surfaces to assess and whether this is a first baseline or a repeat. We agree the section split, the export format and who signs off. Output is a scope note. If the section split cannot be agreed, the assessment does not start, because a rating against boundaries nobody accepts is worthless.

The capture is planned from the surface geometry and the camera optics, so ground resolution and overlap are computed rather than assumed. Output is a validated mission and a capture window request to your tower.

03

### **Capture**

Flown between aircraft movements. About an hour on site per runway, with taxiways and aprons added in proportion to area. If weather closes the window, the mission is reflown unchanged rather than rebuilt.

04

### **Detection and classification**

Imagery goes through the surface analysis pipeline, which segments distress and classifies it by type and severity band. Detections below the confidence floor are held for human review rather than dropped silently.

05

### **Rating and ranking**

Distress density is computed inside each agreed section and converted to a condition proxy on the 0 to 100 scale. Sections are then ordered by condition and treatment band.

06

### **Delivery and walkthrough**

The report, the inventory and the export land together, and we walk your engineer through the sections that moved. Anything disputed is re-examined against the

retained imagery rather than  
re-flown.

CAPTURE • FULL WIDTH • EVERY IMAGE GEOREFERENCED

EVIDENCE AND CAPABILITY

# The claim worth checking is the rating

The index reported here is a proxy. It comes from automated analysis of aerial imagery, and it is calibrated against ground-surveyed [ASTM D6433](#) results so that its output tracks the standard method. It is not the standard method. ASTM D6433 asks a trained inspector to walk each sample unit, measure quantities by hand, read deduct values off published curves and run the corrected deduct value iteration. A camera flying overhead does none of that. What it does instead is see every square metre rather than a sample, at the same detection threshold everywhere, on every visit.

That trade is the whole argument. A manual survey is more authoritative on the sample units it covers and silent on the rest. An imaging assessment is weaker per unit and complete across the network, and it repeats. Where a funding programme or a reporting duty names the standard, the manual survey is still what satisfies it, and the two are not substitutes.

The distress families the assessment reports are the ones a surface image can carry: cracking in all its orientations, [alligator cracking](#), [raveling](#) and weathering, potholes and patching, and joint distress including [spalling](#) and sealant loss. Loose material on the surface is reported as [foreign object debris](#) rather than as a pavement defect, because it is an operational finding with a different owner and a different clock.

Retained raw imagery is what makes a disputed rating checkable. If your engineer disagrees with a section figure, the frames that produced it are still there and the distress inventory can be re-examined against them. A number in a PDF with nothing behind it cannot be re-examined at all.

PROXY VS STANDARD METHOD

100 %

of the surface seen, at one detection threshold, on every visit

sample units

what a walked D6433 survey covers, and is silent beyond

calibrated

against ground-surveyed D6433 results, stated on every report

HOW THE PRICE IS BUILT

Four things move the quote

There is no published rate for this service and there is not going to be one, because the work scales with your pavement rather than with a line item, and a published figure would be wrong for most of the aerodromes that read it.

EUR

PER AERODROME PER ASSESSMENT

EXCL. VAT

EU

CHECKED 2026-09-04

Cost driver 01

Paved area

Cost driver 02

Surfaces and section split

Capture time and processing both scale with it.

A runway split into four sections and one split into twenty are different reports off the same flight.

#### Cost driver 03

##### Baseline or repeat

A repeat reuses the section map and the previous inventory and costs less than the assessment that created them.

#### Cost driver 04

##### Travel

Shows up as travel and not as a different assessment.

Tell us the aerodrome and the surfaces and you get a figure and a date back. The [pricing page](#) sets out the shape of a visit that combines pavement with the lighting inspection, which is the cheaper way to buy both.

EACH WITH AN OWNER

## Risks and dependencies

Three things can stop or degrade an assessment, and each has an owner.

OWNER · WEATHER

OWNER · OPERATOR

## Weather and surface state

Standing water, snow cover and heavy contamination hide the surface from a camera. The mission is reflown rather than rated through the obstruction. This is nobody's fault and it is the most common reason a date moves.

## Access

The capture needs tower coordination and, at most aerodromes, an escort. If the movement windows do not appear, the visit does not happen. That dependency sits with the aerodrome operator and it is worth confirming before travel is booked.

OWNER · BOTH, AT SCOPING

## Section agreement

A rating is a statement about a defined area. If the section boundaries change between assessments, the time series breaks and the change report cannot be produced. We freeze the boundaries at scoping for exactly this reason, and changing them later is a decision with a cost rather than an edit.

Accountability sits with TarmacView for the capture, the classification and the rating, and with the aerodrome operator for access, for the section map sign-off and for what is done with the repair list. Nothing

on this page is a compliance statement. Whether a given condition record satisfies a particular authority is a question for that authority.

## Frequently Asked Questions

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### **Is the PCI you report a formal ASTM D6433 value?**

No. It is a visual proxy derived from automated image analysis and calibrated against ground-surveyed D6433 results, so it correlates with a formal PCI but is not one. A formal D6433 or D5340 survey requires a trained inspector to walk each sample unit, measure distress quantities by hand and compute the corrected deduct values. Where a funding programme or a legal reporting duty names the standard, the formal survey is still the instrument that satisfies it. The proxy is what lets you assess the whole network every year instead of a sample every five.

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### **How is the pavement divided into sections?**

By construction and use, the same way ASTM D6433 divides a network into branches, sections and sample units. A runway is normally split at construction joints, at surface type changes and at the touchdown zones, because those areas take different loading and deteriorate at different rates. Taxiways and aprons are split by geometry and by the traffic they carry. The split is agreed with you before the flight and then frozen, because a rating is only comparable between visits if the section boundaries stay in the same place.

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### **How long does the aerodrome have to give us?**

Capture is flown between aircraft movements in coordination with the tower, so no closure is booked for it. Budget about an hour on site per runway. Taxiways and aprons add time in proportion to their area rather than doubling the visit. The processing and rating happen afterwards, off site, so the time you give up is the capture window and nothing else.

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### **What distress types do you classify?**

The asphalt and concrete distress families that ASTM D6433 defines and that are visible from above: cracking of all orientations, block and fatigue cracking, potholes, patching, raveling and weathering, polished aggregate, joint spalling and sealant loss, corner breaks, scaling and faulting. Distresses that are not surface-visible are outside what any imaging method can rate. Rutting and depressions are reported where the surface model shows them, and are flagged as geometry rather than as a surface defect.

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### **Can this feed our pavement management system?**

Yes. The output is a table of sections with a rating, a distress inventory and a georeferenced position for every finding, which is the shape a pavement management system expects as a condition input. The section identifiers stay stable between assessments so a time series builds up rather than eight unrelated snapshots. Export formats are agreed at the scoping call, because the receiving system decides the format rather than we do.

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## What happens if the assessment finds something urgent?

Anything that reads as an immediate operational hazard, such as loose material on a movement area or an open spill in the touchdown zone, is reported on the day of capture rather than held for the assessment report. That is a safety notification and not a rating. The full assessment follows the normal schedule. This is the one part of the deliverable that does not wait for processing.

## References

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**astm-d6433**    ASTM D6433-24, Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys (<https://www.astm.org/d6433-24.html>)  
ASTM International

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**faa-ac-150-5380-6**    AC 150/5380-6, Guidelines and Procedures for Maintenance of Airport Pavements  
([https://www.faa.gov/airports/resources/advisory\\_circulars/index.cfm/go/document.current/documentnumber/150\\_5380-6](https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5380-6))  
Federal Aviation Administration

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**icao-doc-9137-p9**    Doc 9137, Airport Services Manual, Part 9: Airport Maintenance Practices  
International Civil Aviation Organization

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**icao-annex-14-v1**    Annex 14 to the Convention on International Civil Aviation, Volume I: Aerodrome Design and Operations  
International Civil Aviation Organization

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**tarmacview-pricing**    Pricing: one visit, every light and every surface  
(<https://www.tarmacview.com/pricing/>)  
TarmacView

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