AVISTRATA
AVIATION BUSINESS PLATFORM

Life of a maintenance job

From a pilot's squawk or a build program to a signed release, in Avistrata

For directors of maintenance, maintenance control, mechanics, inspectors and engineers · Avistrata 2.2

A mechanic's day is a chain of hand-offs: maintenance control plans the work, stores kits it, the mechanic does it, engineering answers what the manual doesn't, an inspector checks it and somebody with the right authority releases the aircraft. This brief follows one job through that chain, screen by screen, and shows the other ways work arrives. Every step writes to the same aircraft record, so nothing is re-typed and nothing is signed out of order.

> **The sample job.** A coastal patrol operator flies two King Air 350ER from Norfolk (KORF). On Tuesday evening its pilot checks in after a patrol with a squawk: the radar altimeter dropped out twice below 500 ft. That evening, mechanic Marco Reyes troubleshoots it and finds a chafed coax. Engineer Priya Natarajan gives an approved repair, inspector Hannah Price signs QC and the release, and the aircraft is ready for Thursday's 7 AM sortie. **Every company, person, tail number and figure in this brief is fictional.** The screenshots are real Avistrata screens showing this sample data, taken on 27 October 2026; the people's names on them belong to the sample.

1 · Arrive	2 · Plan	3 · Kit	4 · Work	5 · Ask	6 · Inspect	7 · Release	8 · Close
Squawk, build program or inspection due	Work order and task card	Parts and tools to the card	Clock in, work items, findings	Engineering disposition	QC and RII sign-off	Final sign-off, CRS, logbook	Squawk closed, due items, invoice

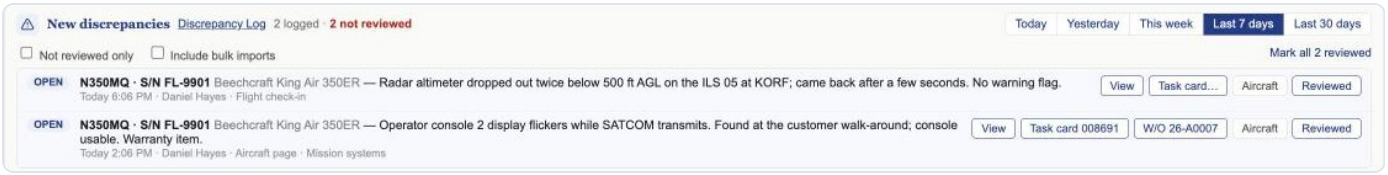
When	What happens in the sample
Tue 27 Oct, 6:06 PM	The pilot checks N350MQ in with a radar altimeter squawk. It lands on the New discrepancies list on maintenance's Home.
6:28 PM	Maintenance control makes a task card from the squawk on a new work order, 26-A0008, with four work items, a kit and the tools.
6:30 PM	Marco clocks in, checks out the ramp test set and a cable tester, and finds the RX coax chafed at the edge of a new belly doubler.
6:31 PM	He asks engineering from the card. Priya answers with an approved repair and a 100-hour repeat inspection.
Evening	The coax is replaced and ground tested. Hannah approves each item, signs the FAA and EASA release, and the squawk shows Corrected.

1 Where the work comes from

Work reaches the hangar through three doors, and all three end up as work orders and task cards on the aircraft.

A squawk

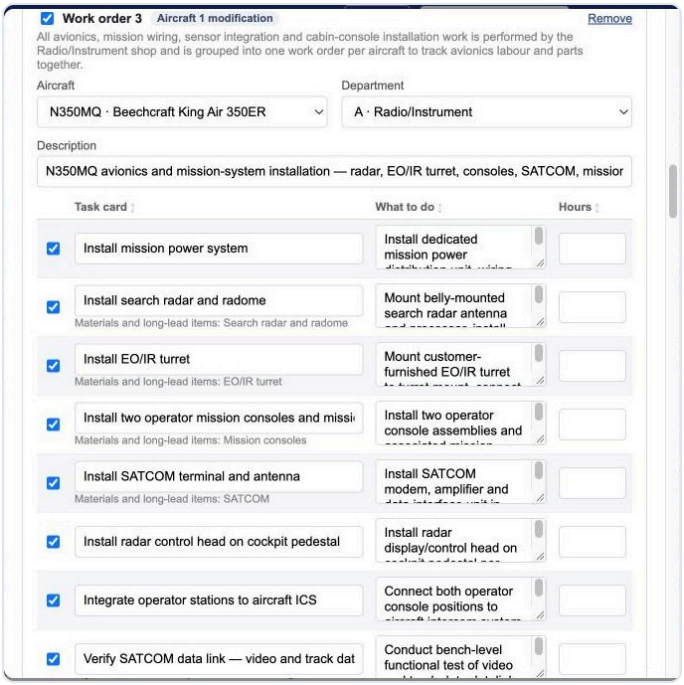
Squawks come from pilot check-ins, the aircraft page, the AOG desk and imports. **New discrepancies** on Home, in both the Maintenance and the Operations workspace, lists everything logged today, this week or in the last 30 days. Maintenance control opens each one, marks it reviewed and makes a task card from it. A squawk marked grounding blocks the next dispatch and release until maintenance clears it.



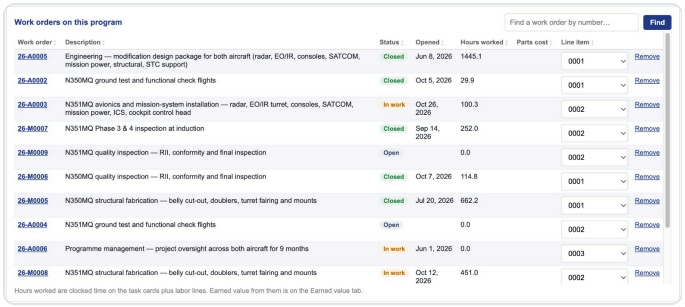
Tuesday evening: two squawks on N350MQ from the pilot, neither reviewed yet. Task card… turns one into work.

A build program

For a modification or a fleet build, the business case becomes the plan. The AI plan proposes work orders by aircraft and department with their task cards, and nothing is created until a planner has checked and accepted it. The program then tracks those work orders against their line items and schedule.



A proposed work order from the build program's business case: aircraft, department and its task cards, each editable before it's created.

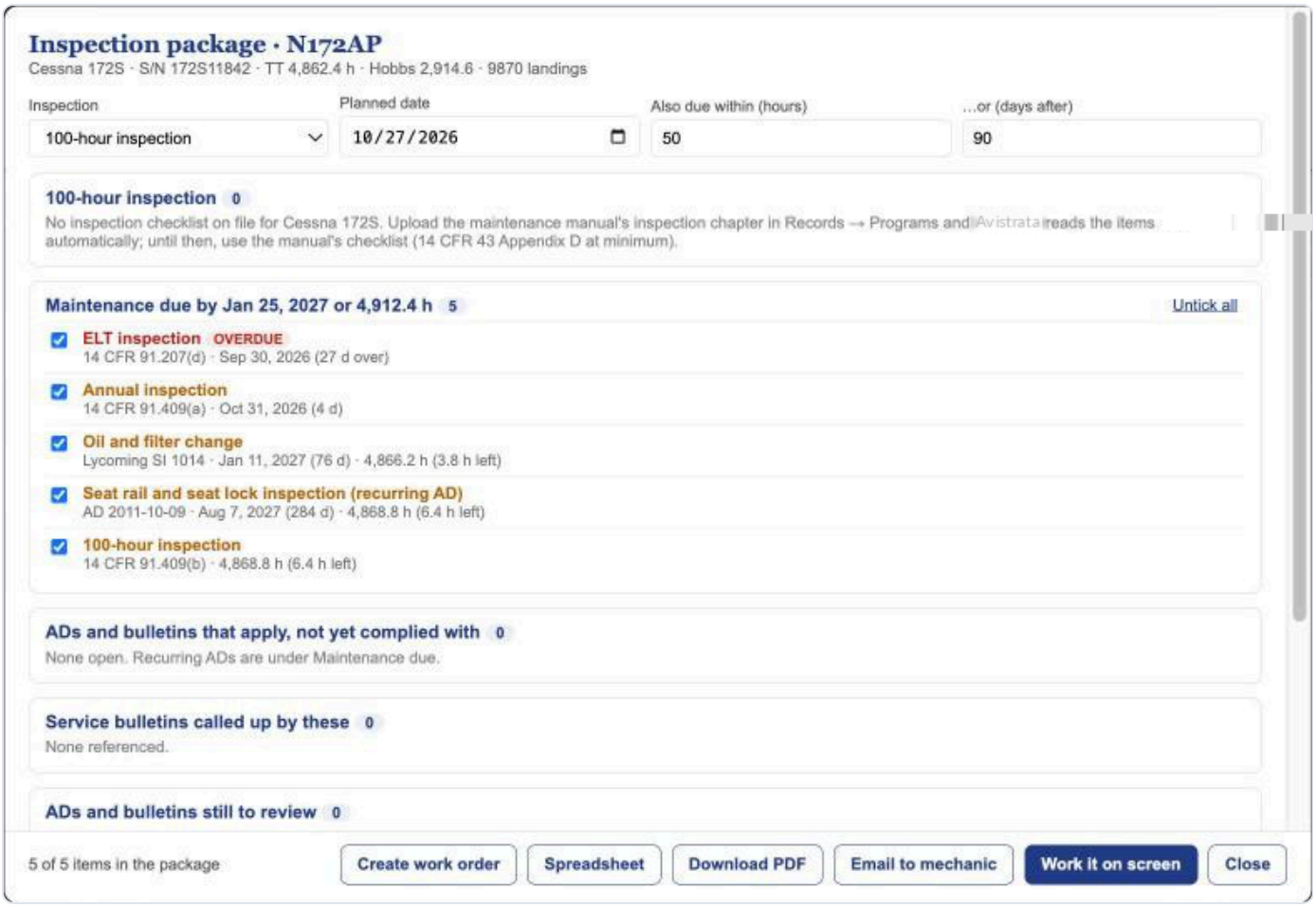


The program's work orders with status, hours clocked and the line item each one belongs to.

An inspection coming due

Maintenance Due tracks recurring items by hours, calendar and cycles, whichever comes first. The **inspection package** on the aircraft gathers everything due by the next annual, 100-hour or phase inspection (with a look-ahead), the ADs that apply and aren't complied with, the service bulletins they call up, and the open squawks and MEL deferrals. One click makes a work order with one task card per item.

1 Where the work comes from INSPECTIONS

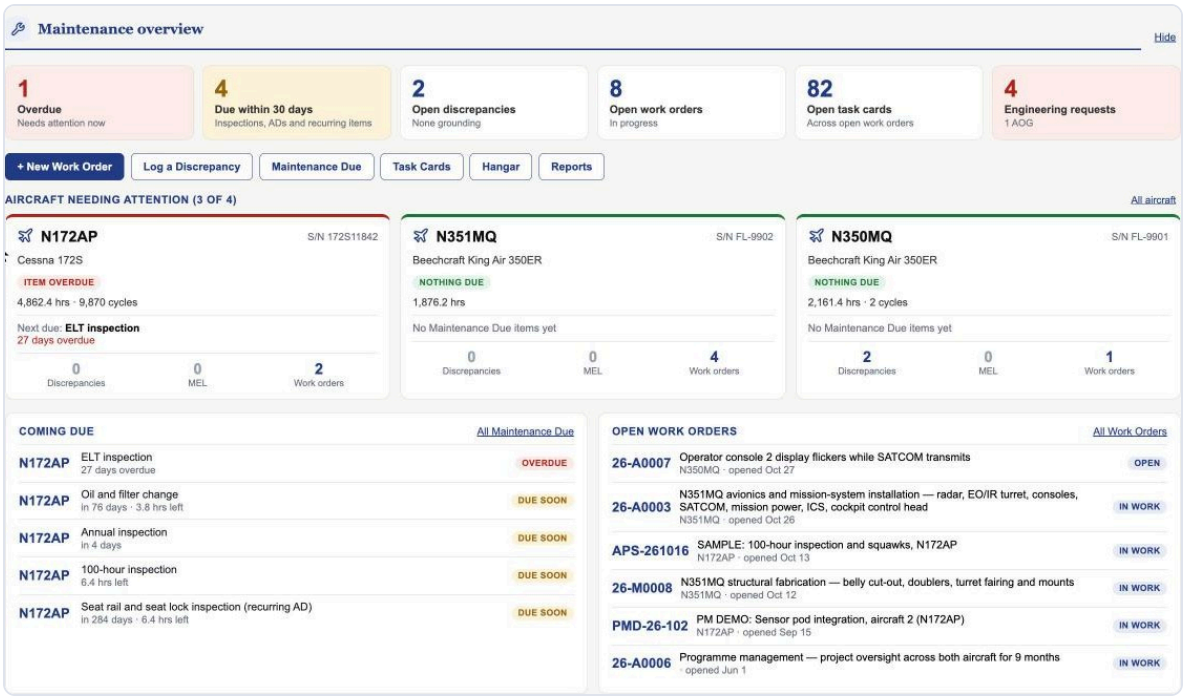


The 100-hour inspection package for a training Cessna: the overdue ELT inspection, the annual, an oil change, a recurring AD and the 100-hour itself, all ticked. From here: a work order, a spreadsheet, a PDF with tick boxes and a sign-off block, an email to the mechanic, or "Work it on screen".

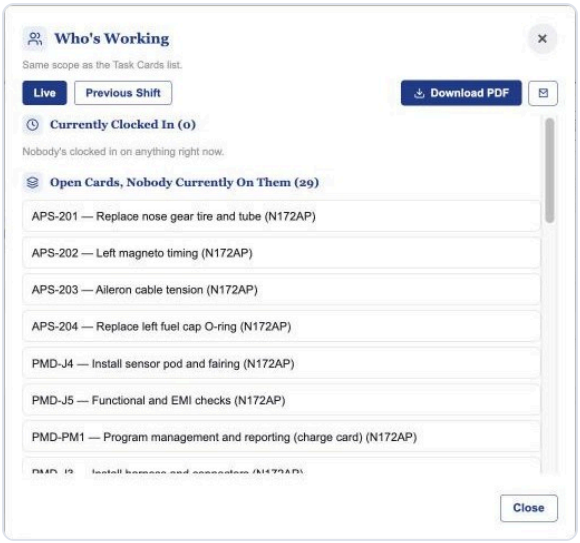
Work it on screen is for an independent A&P or IA who doesn't use work orders: each line is marked done, not applicable or a discrepancy as they go, and signing the worksheet (with the 14 CFR 43.11 statement) can sign off the Maintenance Due items and close the squawks marked done. The signed PDF, the owner's discrepancy list and the logbook entry follow from it.

2 The hangar at a glance

In the Maintenance workspace, Home opens on the **maintenance overview**: items overdue and due within 30 days, open discrepancies (and how many ground an aircraft), open work orders and task cards, and engineering requests waiting. The aircraft needing attention come first, then what's coming due across the fleet and the open work orders.



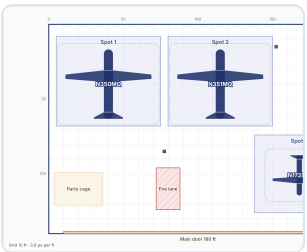
The maintenance overview on Tuesday evening, with the new work order 26-A0008 at the top of the open work orders.



Who's Working: who is clocked in on what right now, the open cards nobody is on, and the previous shift, as a PDF for the shift handover.

For the supervisor

- **Who's Working** shows live clock-ins and open cards with nobody on them.
- **Task Cards** filters by status: open, pending QC, ready for sign-off, approved and voided. Pending QC is the inspector's queue.
- **The hangar plan** books each aircraft into a spot and shows the equipment booked to the job.
- **Calendar** and **Weekly Plan** lay out the week's work and who is on it.



The hangar floor plan to scale, with aircraft in their spots.

3 From squawk to task card

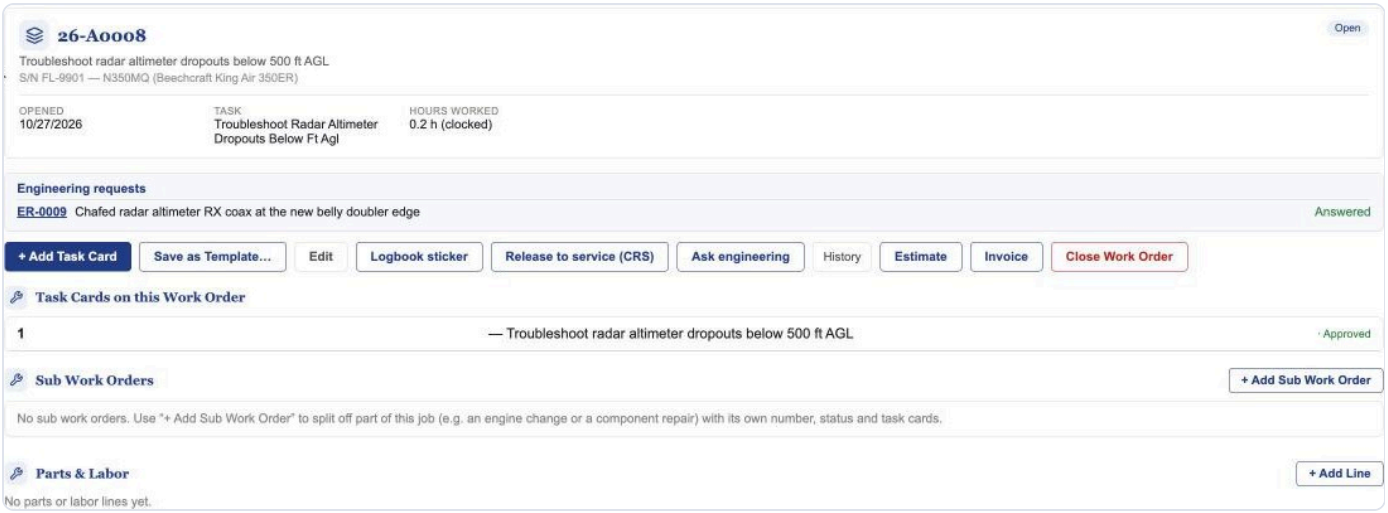
Make a task card takes the squawk's text, lets maintenance control write the card's title, and puts it on an open work order for the aircraft or a new one in the chosen department. Approving the card later closes the squawk, so nobody has to remember to.



The radar altimeter squawk becomes a card on a new Radio/Instrument work order.

Other ways to start a card

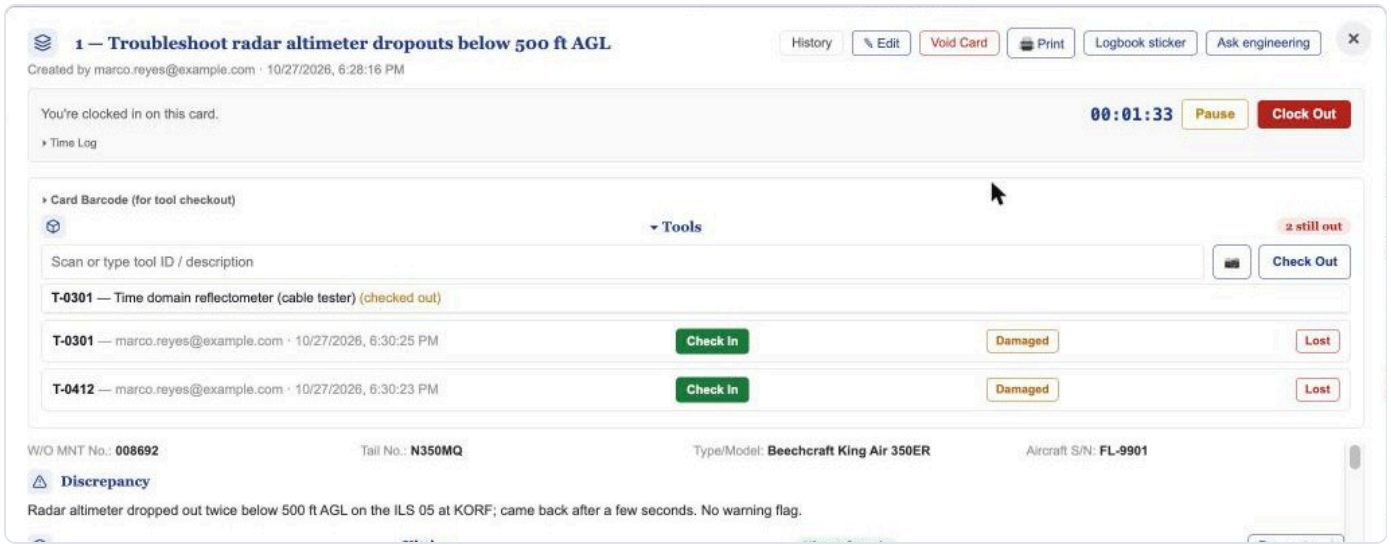
- **New Task Card** on the Task Cards screen or a work order.
- **Scan a Card:** a photo of a paper task card fills in the new card.
- **Work order templates** for repeat jobs, saved from any work order.
- **Make task card** on a Maintenance Due item: approving the card signs the item off.
- **Sub-cards** for non-routine findings on a card, with their own work items and sign-offs.



Work order 26-A0008: its engineering request, task cards, sub work orders, parts and labor lines, and the logbook sticker, release to service, estimate and invoice actions.

4 On the card: clock, kit and tools

Marco opens the card and clocks in; the banner across Avistrata shows what he's clocked in on until he pauses or clocks out. Clocked time rolls up to the work order's hours worked. The card carries the aircraft, discrepancy, kit, work items, parts and documents in one place.



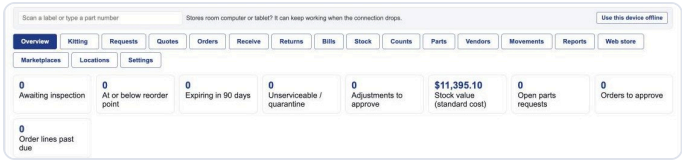
The card with Marco clocked in and two tools checked out to it: the radar altimeter ramp test set and the cable tester. Each can be checked in, or reported damaged or lost.

Parts

- **Kitting** lists the parts and materials the card needs, with part number, quantity and bin, from a saved kit template or by hand. Each item moves from needed to requested, staged and issued, and the card shows when the kit is ready.
- **Stores on the card** finds a part in stock, shows where and whether it can be issued, and issues or reserves it to the card. Issued parts land on the work order as lines, and so on the invoice. Serialized rotables update the aircraft's component list, and a removed part goes to the unserviceable store.
- **The kitting queue** in Stores is the parts team's list, AOG first, with a pick list sorted by bin.
- **Parts requisitions** and orders for the card show the order number and expected date.

Tools

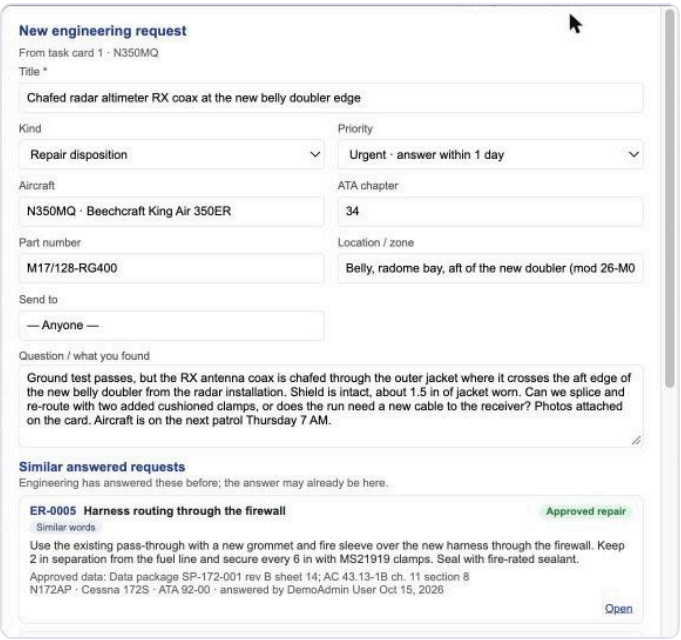
- Tools are checked out to the card by scanning or typing the tool number; the card's own barcode works for checkout at the tool crib.
- Calibration due dates are tracked per tool, with an overdue report and calibration history.
- At close-out the card warns about tools still out and kit parts staged but not issued.



Stores overview: receiving inspection, reorder points, shelf life, quarantine and stock value.

5 Ask engineering

The ground test passes, but flexing the belly panel drops the signal, and the cable tester finds the RX coax chafed where it crosses the edge of a doubler added by the radar installation. That's a question for engineering. **Ask engineering** on the card opens a request prefilled with the aircraft, card and work order.



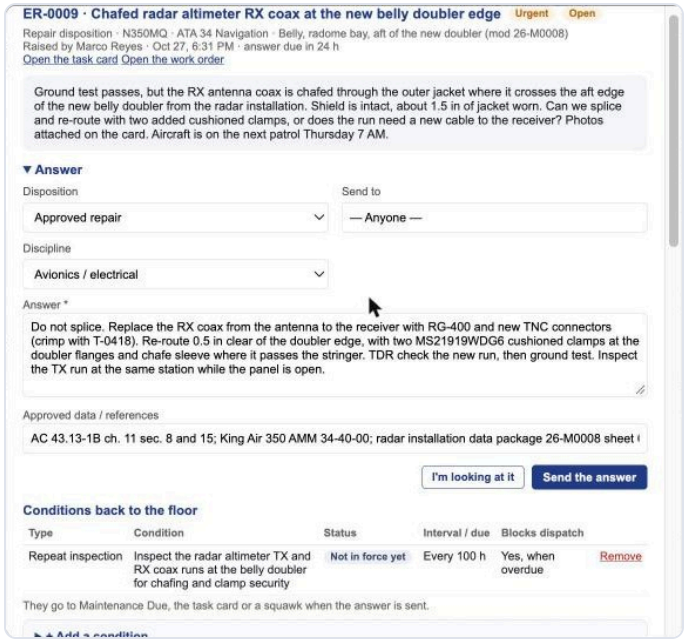
The request: repair disposition, urgent (answer within a day), ATA 34, the part number and location. Engineering has answered similar requests before, and those show up under the request so the answer may already be there.

How a request is handled

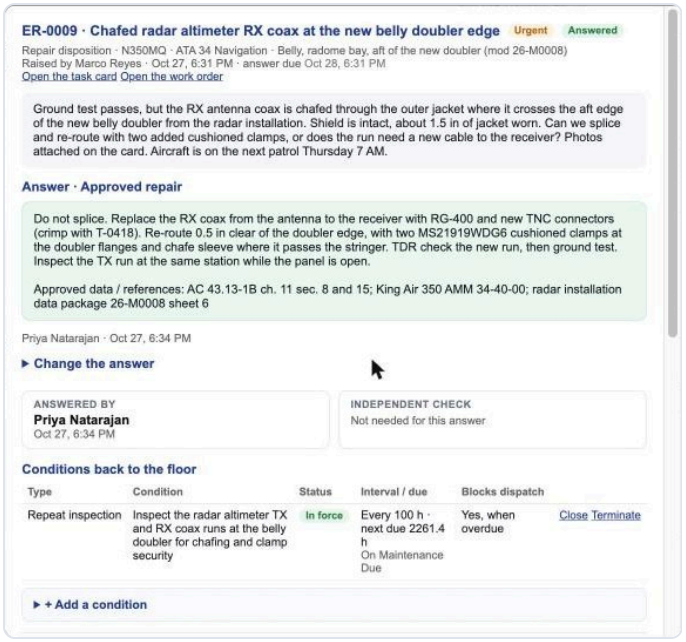
- **Kinds:** repair disposition, damage assessment, technical question, alternate part, deferral / MEL, other.
- **Priorities with answer times:** AOG within 4 hours, urgent within a day, routine within 5 days.
- **Routing** to an engineering group by kind, ATA range, aircraft, customer or program, with an on-call person, escalation times, and Take it / Assign / Hand back.
- **Engineer authorisations** (company, FAA DER, EASA DOA, national authority) set what each engineer may answer; the database refuses or records answers outside them.
- **Independent check** for chosen answers: a second engineer agrees before the mechanic is told.
- **Customer approval** for dispositions on customer aircraft, signed by e-mail link; until then the card and work order show a blocking banner.

5 Ask engineering THE ANSWER

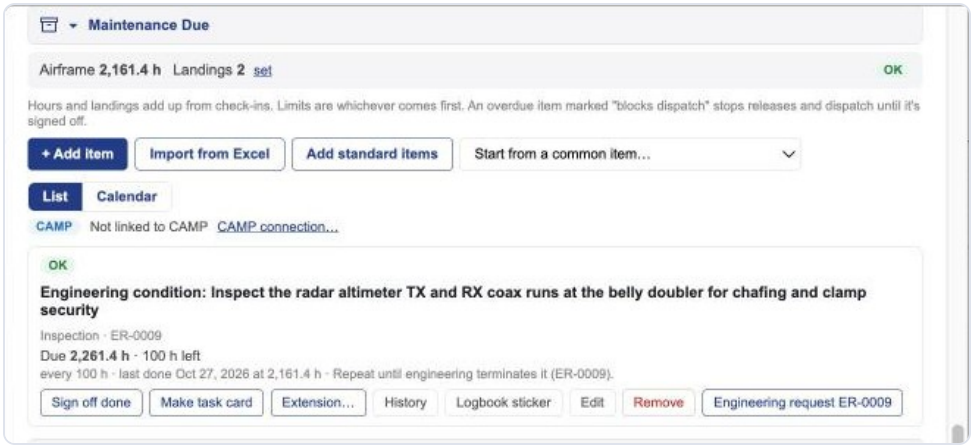
Priya answers with a disposition, instructions for the mechanic and the approved data the answer rests on. Because the doubler edge will keep rubbing, she adds a **condition back to the floor**: a repeat inspection every 100 hours. Conditions can also be a time-limited repair, something to do before the next flight, or before the next check. They take effect when the answer is sent.



The answer being written: approved repair, avionics/electrical, the instructions, AC 43.13-1B and the installation data, and the repeat inspection.



Answered. The repeat inspection is in force, next due at 2,261.4 hours, and already on the aircraft's Maintenance Due. Overdue, it blocks dispatch.

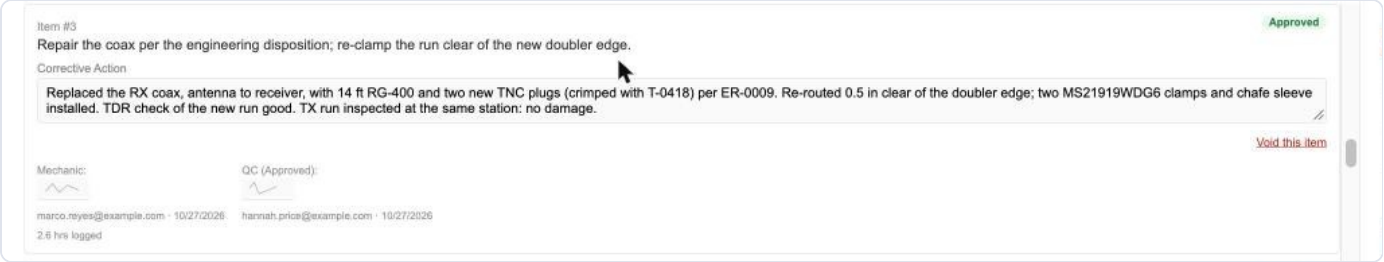


N350MQ's Maintenance Due: the engineering condition with its interval and a link back to ER-0009. It repeats until an engineer terminates it.

Engineering also keeps major and minor repairs and alterations (approved data, instructions for continued airworthiness, weight and balance, Form 337 worksheet), the AD review queue, reliability by ATA chapter, and engineering hours by customer and work order.

6 Work items, QC and RII

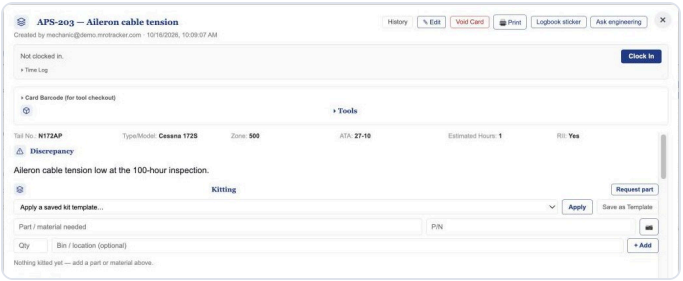
Each **work item** on the card is one step: what to do, then the corrective action (what was done). The mechanic signs each item with a drawn signature, a PIN or biometrics, and can log the hours spent on it. Signing moves the item to **Pending QC**, and the QC roster is emailed. The inspector approves the item with their own signature, or rejects it with a reason, which reopens it as a new revision; earlier revisions stay visible.



Item 3 after the repair: Marco's corrective action and signature with 2.6 hours logged, then Hannah's QC approval.

Required inspection items

A card marked **RII** needs an inspector with RII authority, not just any QC reviewer, and that inspector can never be the person who signed the item as mechanic (14 CFR 121.369(b)(7) and 135.427). Avistrata enforces both.



A training Cessna's aileron cable tension card from its 100-hour inspection: ATA 27-10, RII.



The mechanic's sign-off waiting for an authorized RII inspector.

Rule	**What** Avistrata *does*
Item order	A card can only be signed off once every work item on it is approved
Who may inspect	QC reviewers, RII inspectors and approval admins are set per group; each check has its own rule
Voids	An item or a whole card is voided with a reason and a signature, and stays visible, marked invalid
Where and when	Each signature keeps the signer, time and, when the device allows, the location

7 Release to service

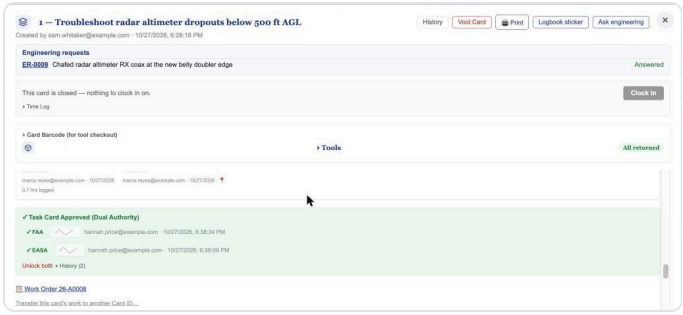
With every item approved, the card is ready for its final sign-off. Before that, the card checks the close-out: here, the two tools still checked out. In an organization under both FAA and EASA, the card needs both sign-offs.



The close-out warning and the dual sign-off, FAA and EASA.



The certifying staff check: the EASA release needs a Part-66 licence and a certification authorisation (145.A.35) on file for the signer.

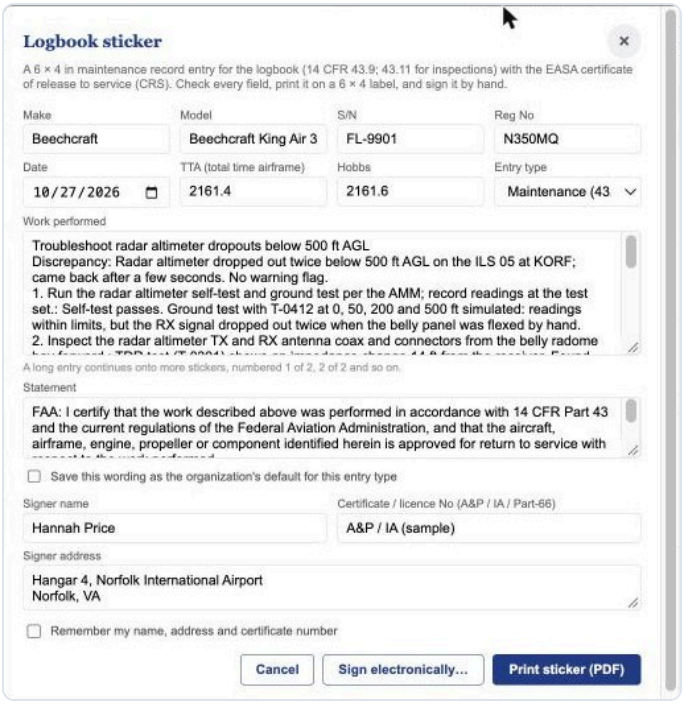


Task card approved under both authorities. The card is closed to clock-ins, and the squawk it came from is closed.

For organizations with an approval number, **Release to service (CRS)** on the work order issues the certificate of release with the organization's own statement; the national statement is used for KCAA, SACAA and GCAA organizations.

7 Release to service RECORDS

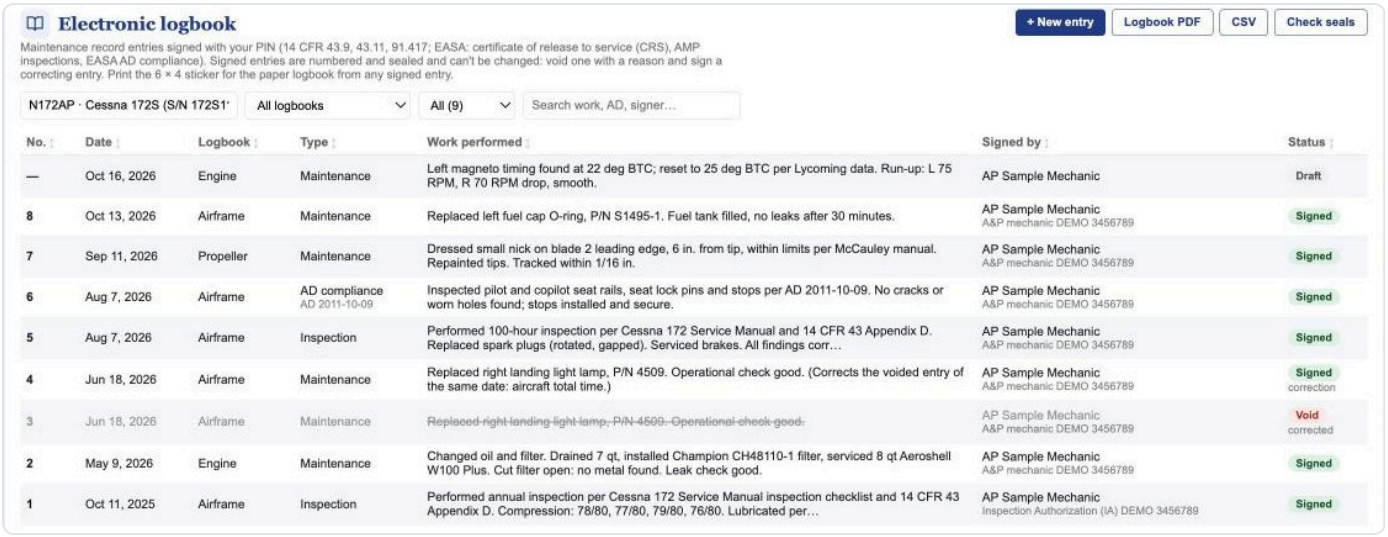
The **logbook sticker** fills a 6 × 4 in maintenance record entry from the card: aircraft, date, total time and Hobbs, the work performed from every item, and the return-to-service statement for the organization's authority (14 CFR 43.9, 43.11 for inspections, with the EASA CRS where it applies). Everything can be edited before it's printed and signed by hand, or it can be signed electronically.



The sticker for the radar altimeter job, with the inspector's name and address.

The electronic logbook

- Maintenance (43.9), inspection (43.11) and AD compliance (91.417) entries for the airframe, engine, propeller and appliance logbooks.
- Signed with the signer's PIN: the server numbers the entry, records the PIN check and seals it (SHA-256, chained to the aircraft's previous entry).
- A signed entry can't change. It's voided with a reason and a correcting entry is signed.
- Exports: the logbook PDF with each entry's signature, seal and check link, CSV, and the sticker.



A training Cessna's electronic logbook: numbered, signed entries, a draft, and a voided entry with its correction.

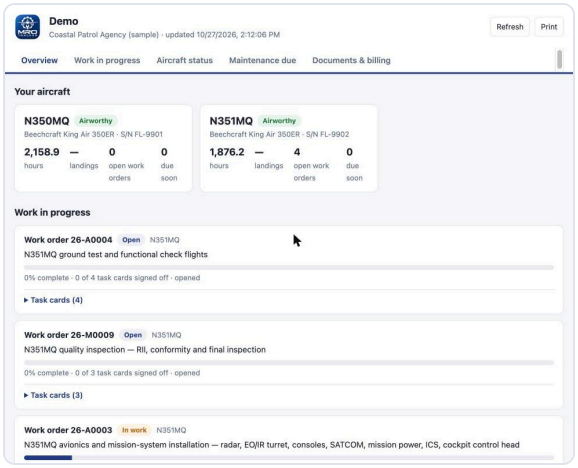
8 Closing the loop

Approving the card closed the squawk. In the discrepancy log it now shows **Corrected**, with its task card and work order, and the pilot's next release sees an aircraft with nothing open against the radar altimeter. The repeat inspection from engineering is on Maintenance Due, so it will come back to the floor in 100 hours without anyone keeping a list.



The discrepancy log: the radar altimeter squawk corrected through task card 008692 and work order 26-A0008.

Where it lands	What happens
Operations	Aircraft status on the next release reads the closed squawk; a grounding item would have blocked dispatch until signed
Maintenance Due	The engineering condition and any items signed off by the card move to their next due; alerts go out every 15 minutes for items coming due
Work order	Clocked hours and issued parts roll up; close the work order when its cards are done
Billing	Estimates the customer approves online (optional items can be declined), then invoices from labour hours at the labour rate plus parts with the markup, paid online, recorded and pushed to the accounting system
Customer portal	The customer sees work in progress, aircraft status, maintenance due and documents through a private link



The customer's portal: their aircraft and the work in progress on each.

9 The records behind it all

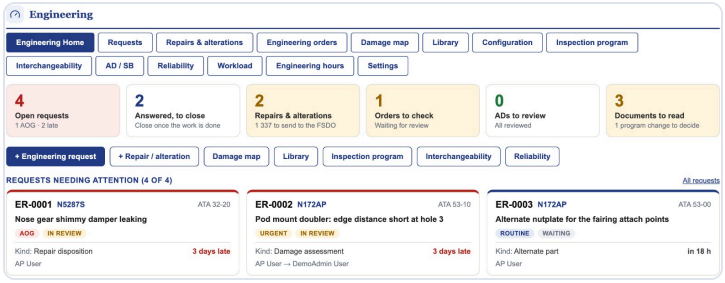
Record	What Avistrata *keeps*
Maintenance Due	Recurring items with limits by hours, calendar and cycles, sign-off and history; overdue items marked "blocks dispatch" stop releases and dispatch
AD / SB	ADs matched every day to each aircraft and its engines, propellers and APU, marked applies, not applicable or complied, with the service bulletins they reference; recurring ADs go to Maintenance Due
Life-limited parts	Each part's life against every limit (first to occur), installs and removals, approved extensions, back-to-birth record; a part at its limit blocks dispatch
MEL	Lists per aircraft type, deferrals with dual sign-off; an expired deferral blocks the release
Phase inspections	Progressive programs with each phase's checklist and completions
Discrepancy log	Every squawk with its corrective action, task card and work order
Logbook	Sealed electronic entries and logbook stickers

Quality and people

- **Audits and findings:** the audit programme with checklists and evidence; findings from audits, the FAA, customers, occurrences and suppliers, with root cause (including the Dirty Dozen), containment, corrective and preventive actions, and an effectiveness check.
- **Suppliers:** a scorecard from receiving inspection, on-time delivery and findings, with risk tiers and audit intervals.
- **Read and sign** for procedures and bulletins, with progress per person and a signed record.
- **Training and authorizations:** courses with recurrence for mechanics and inspectors, certificates and classifications, and the auditor packet PDF that puts training, authorizations, findings and rosters in one file for the inspector.

10 Who uses what

Role	Where they work	What Avistrata *does for them*
Director of maintenance	Maintenance overview, Records, Quality	The fleet's status, everything due, and the audit trail behind every sign-off
Maintenance control	New discrepancies, work orders, inspection packages	Squawks become cards in one click and close themselves when the card is approved
Supervisor / lead	Who's Working, Task Cards, hangar plan	Who is on what, what nobody is on, and the shift handover as a PDF
Mechanic	The task card	Clock, kit, tools, work items, engineering and sign-off on one screen
Inspector (QC / RII)	Pending QC, the card's sign-off	Every item to approve, with the independence rule and authorities checked for them
Engineer	Engineering Home, requests	Questions from the floor with photos, answers reused, and conditions that reach the floor by themselves
Stores	Kitting queue, Stores	What each card needs, AOG first, issued straight onto the work order
Quality manager	Quality, Read and sign	Audits, findings and their follow-up, and the auditor packet
Billing	Estimates, invoices	Hours and parts from the job, approved and paid online



Engineering Home: open requests with AOG and late ones first, answers to check, alterations in work and ADs to review.

Getting started

1. Add the aircraft with their engines and propellers, and import Maintenance Due and the AD set-up.
2. Set the QC reviewers, RII inspectors and approval admins, and the engineers and their authorisations.
3. Set the organization's authority (FAA, EASA, both or national) and its release statement.
4. Load stock and tools with calibration dates; save kit and work order templates for repeat jobs.
5. Run one squawk end to end: card, kit, sign-off, QC, release and logbook.

Companion briefs: *From first call to first mission* (the program side) and *Life of a flight operation* (the flight department side). © 2026 Leesburg Aviation LLC. All rights reserved.