AVISTRATA
AVIATION BUSINESS PLATFORM

Life of a flight operation

Crew planning, dispatch, flight following, check-in and safety in Avistrata

For directors of operations, chief pilots, dispatchers and safety officers · Avistrata 2.2

A flight department runs on a loop: plan the crew, book the flight, check that the crew and the aircraft are legal, release it, follow it, check it in, and learn from whatever happened. This brief follows that loop through Avistrata, one screen at a time. Every step reads the records the step before it wrote, so a pilot whose medical has run out, an aircraft with an open grounding squawk or a flight above the company's risk limit is stopped before it leaves, not found in an audit afterwards.

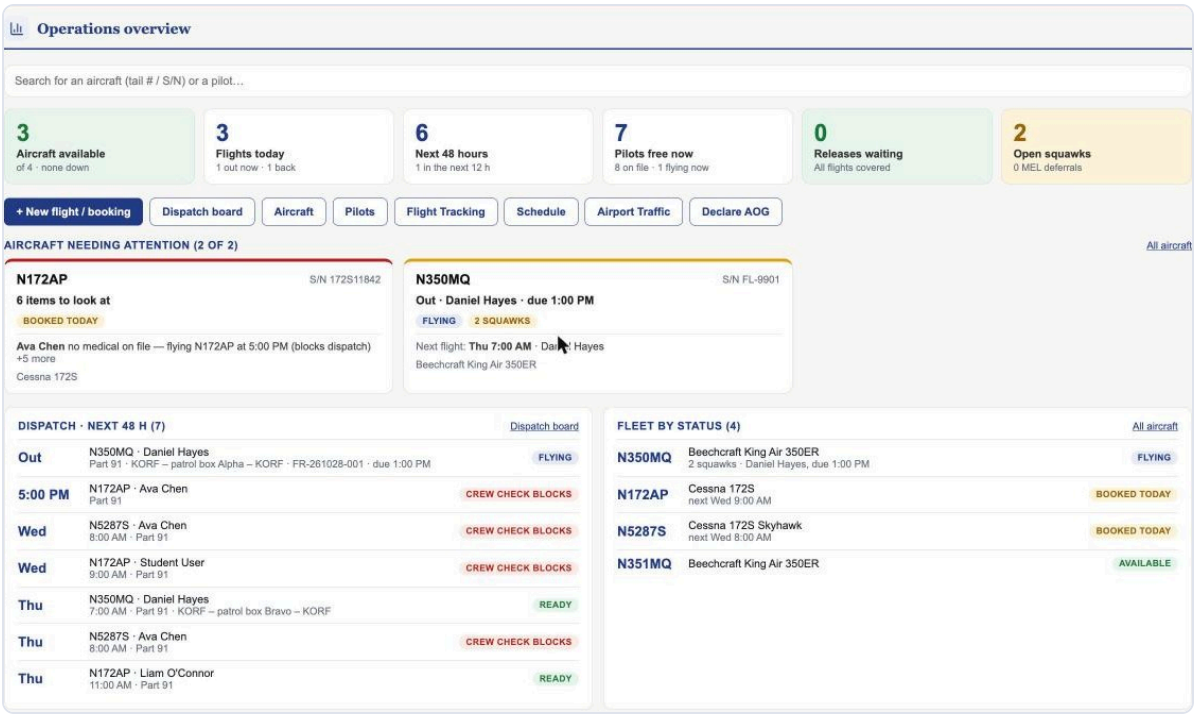
> **The sample operator.** A coastal patrol operator flies two Beechcraft King Air 350ER on maritime patrol sorties out of Norfolk (KORF) and runs a small training fleet of two Cessna 172s. Its pilot Daniel Hayes flies patrol box Alpha on Tuesday afternoon, comes back late, files a hazard report and checks in with a squawk. The next morning's sortie is released with a FRAT and a load manifest. **Every company, person, tail number and figure in this brief is fictional.** The screenshots are real Avistrata screens showing this sample data, all taken on 27 October 2026.

1 · Plan	2 · Book	3 · Check	4 · Release	5 · Follow	6 · Check in	7 · Maintain	8 · Learn
Roster, time off, rest and capacity	Schedule, open flights, quotes	Crew checks and duty limits	FRAT, manifest, route brief	Out now, overdue alerts, tracking	Times, fuel, duty, squawks	Squawks to the hangar, AOG	Hazard reports and the SMS

When	What happens in the sample
Through October	The chief pilot builds the roster, approves time off and keeps an eye on rest and duty for the next two weeks. Crew records and recurrent training are kept current.
Tue 27 Oct, 2 PM	Daniel reports for a patrol sortie on N350MQ. His crew checks pass and the flight is dispatched.
Tue, 5 PM to 6 PM	The sortie runs long. Avistrata flags it overdue at 6 PM and alerts dispatch, operations control and the chief pilot.
Tue, 6:06 PM	Daniel checks in: times, fuel, duty, a radar altimeter squawk for maintenance and a bird-strike hazard for the safety officer.
Tue evening	The safety officer reviews the hazard and adds a dusk bird brief to every patrol release. Dispatch builds the release for Wednesday's 7 AM sortie: FRAT 28 points, 18 after mitigation; load manifest 295 lb under maximum takeoff weight.

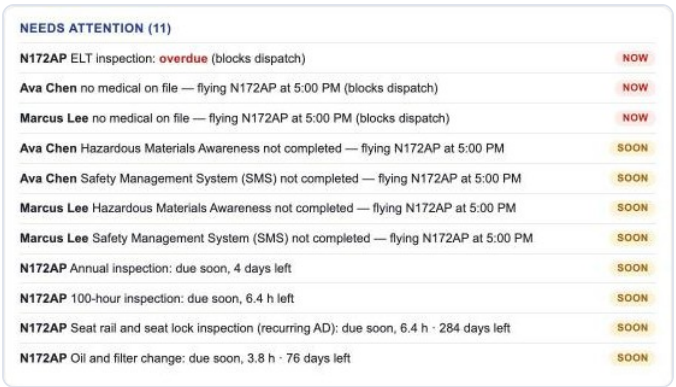
1 The day at a glance

With the Operations workspace selected, Home opens on **Today**: the operation on one screen, refreshed every minute. The tiles count aircraft available and down, flights today and in the next 48 hours, pilots free now, releases waiting and open squawks. Quick buttons start a booking or open the dispatch board, the schedule, flight tracking, airport traffic or the AOG desk.



Today, at the end of Tuesday afternoon. N350MQ is out with Daniel Hayes and carries two squawks; dispatch for the next 48 hours shows which flights are ready and which a crew check blocks.

Below the tiles, **Aircraft needing attention** puts the worst aircraft first, and each line in **Dispatch, next 48 h** carries its state: ready, flying, or blocked by a crew check. **Needs attention** lists what will stop a flight soon, such as a pilot with no medical on file, a required course not completed or an inspection coming due, each with how soon it matters. The AOG, out now and back today boxes complete the picture.



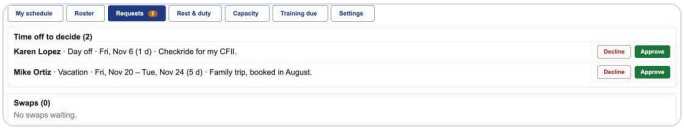
Needs attention: problems that block dispatch now (red) and ones coming up (amber), people and aircraft together.

2 Plan the crew

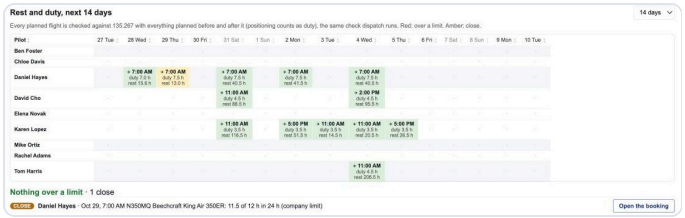
Crew Planning is where the chief pilot or scheduler builds the month. The roster shows every pilot by day: on, reserve, standby, training, off, vacation or unavailable. A flight booked on a day the person isn't available gets a red outline, and the count of such flights sits at the top. The bottom row counts pilots free to fly each day. A range fills several days at once, for example a 7-on, 7-off line.



The October roster. Two flights fall on a day the pilot is off, and both are outlined in red.



Requests: time off and swaps waiting for a decision. An approved request goes onto the roster.

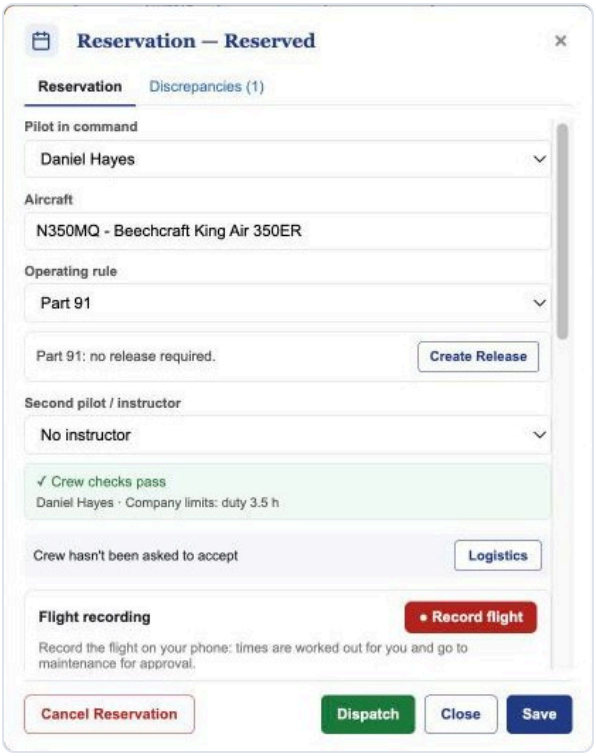


Rest and duty for the next 14 days. Every planned flight is checked with everything before and after it; here, one flight comes close to the company's 12-hour limit.

- **My schedule.** Each pilot sees their own trips, accepts or declines them, offers a swap, asks for time off and sets their home base.
- **Rest and duty** looks ahead 7 to 30 days with the same check dispatch runs, so a problem next week shows now. Positioning counts as duty.
- **Capacity** compares pilots needed on the busiest day of each week (booked trips, plus charter quotes sent or accepted) with pilots available by aircraft type, so you know when you'll need a contract pilot.
- **Open flights.** Dispatch can book a flight with the pilot seat open and notify the group's pilots. Pilots ask to fly it, dispatch sees each one's crew checks and approves one, and everyone who asked is told the outcome. A flight with an open PIC seat can't be dispatched.
- **Suggest crew** on the booking form ranks who can fly it: legal with the trips before and after, qualified, on the roster that day, already at or based at the departure airport, and with the fewest recent hours. Saving asks the crew to accept the trip.
- **Trip logistics** per booking: positioning, hotels and ground transport, for one crew member or the whole crew.
- **Daily email.** Each pilot can get their own flights for the next day by email, and dispatchers can get every flight.

3 Book the flight

Flights are booked on the **Schedule**, a week calendar of every aircraft, or from the Today screen. Anyone can book for themselves. Dispatchers, operations control and admins can book for anyone and are the only ones who dispatch or complete a booking. A booking holds the aircraft, the pilot in command, a second pilot or instructor, the operating rule, the route and notes.



Tuesday's patrol sortie. Crew checks pass for Daniel Hayes, with his duty for the day against the company limit. Part 91 needs no release, though one can still be created.

Where bookings come from

- **Direct booking** on the schedule or the Today screen.
- **Charter quotes** (Billing → Quotes). Rates come from the aircraft. The database works out flight charges, the daily minimum, overnights, landings, fees, the 7.5% federal excise tax and segment fees. Once the quote is accepted, Book turns every leg into a booking, and the invoice is later built from the actual checked-in times.
- **A flight release.** Creating a release draft books the aircraft for the ETD to ETA, or links the booking already there.
- **Open flights** that a pilot asked for and dispatch approved.

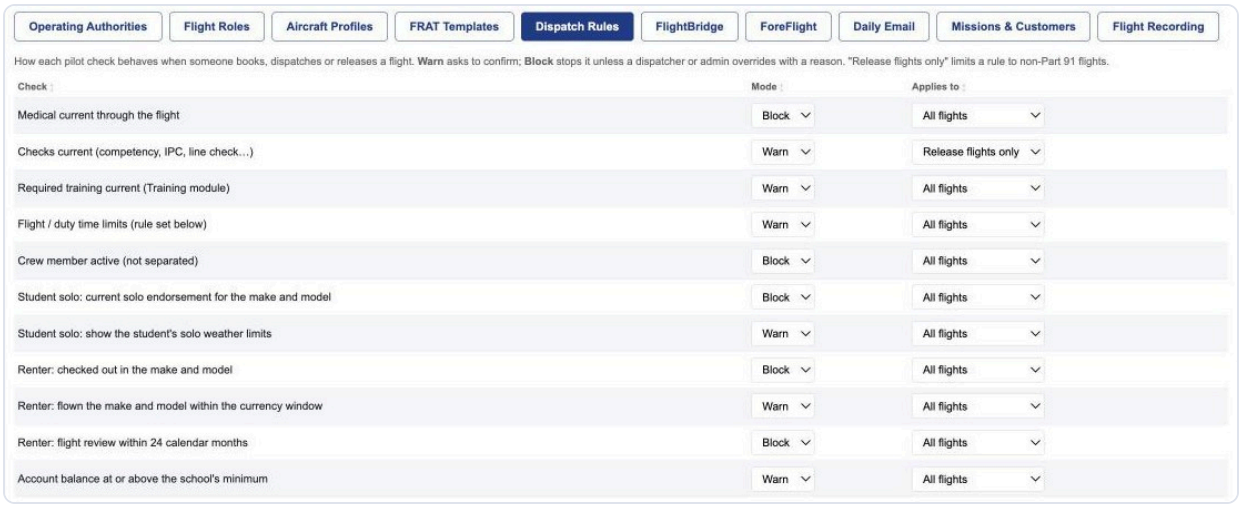
Planning aids

- **Trip planner:** route by airports, fixes, navaids and airways, climb, cruise and descent profiles, winds, fuel with reserves, a leg-by-leg NavLog, a map and a vertical profile over terrain. "Apply to release" copies the route, ETA and fuel onto a draft.
- **Airports:** frequencies, runways with wind components, METAR, TAF, winds aloft, procedures and charts, NOTAMs and nearby TFRs.

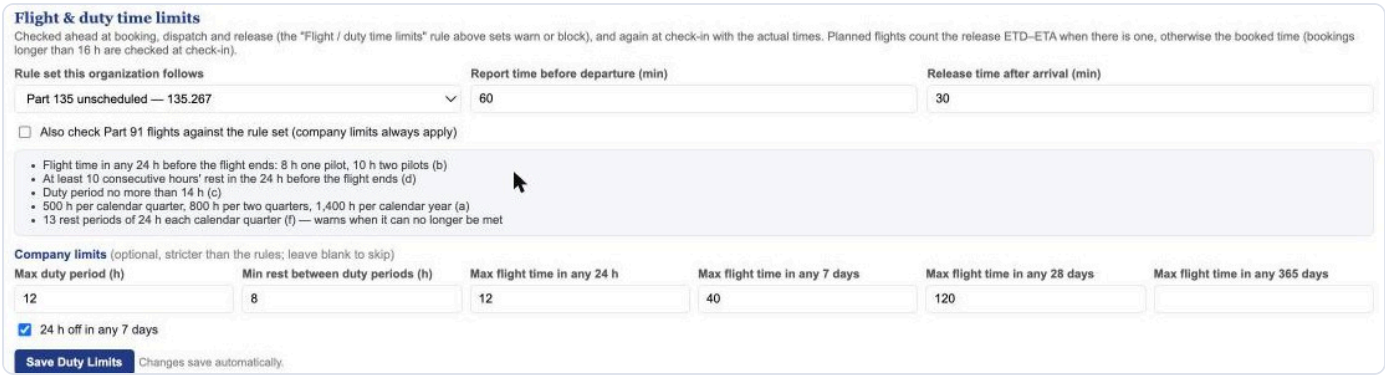
Both are planning aids, not an official briefing.

4 Your rules, enforced at every step

A director of operations sets the company's dispatch rules once, under Flight Ops → Settings. Each check can **block** (it stops booking, dispatch or release unless a dispatcher or admin overrides it with a reason, which is recorded), **warn** (it asks the person to confirm) or be off. A rule can apply to all flights or only to flights under a rule other than Part 91.



Dispatch rules: medical current through the flight, checks current, required training, flight and duty time, crew member active. Flight school operators also get checks for student solo endorsements and weather limits, renter checkouts and currency, flight reviews and account balance.



Flight and duty time limits: the rule set the organization follows (here 135.267), report and release times, and stricter company limits on top. They're checked at booking, dispatch and release, and again at check-in with the actual times.

Setting	What it controls
Operating authorities	Each rule the organization flies under (91, 91K, 135, 121), with certificate number, OpSpec reference and e-signature authorization. A release can only use a rule set up here.
Flight roles	Who is a pilot, dispatcher, ops control, director of operations, chief pilot, FRAT approver, load agent, safety officer or training staff. Most permissions follow the role.
Aircraft profiles	Empty weight and maximum takeoff weight per aircraft, prefilled on the load manifest.
FRAT templates	The risk questions, points and limits (section 5).
Takeoff and landing performance	Whether the pilot must sign that takeoff and accelerate-stop distances fit the runway before release, and for which operating rules.
Missions and customers	Mission segments and customers for each flight, used in the flight activity review (Reports → Flight Ops).

5 The release

For Wednesday's 7 AM sortie, dispatch starts a release from the booking. The draft carries a checklist of everything still blocking. It updates as each section is completed, and **Release Flight** only works once nothing is left.



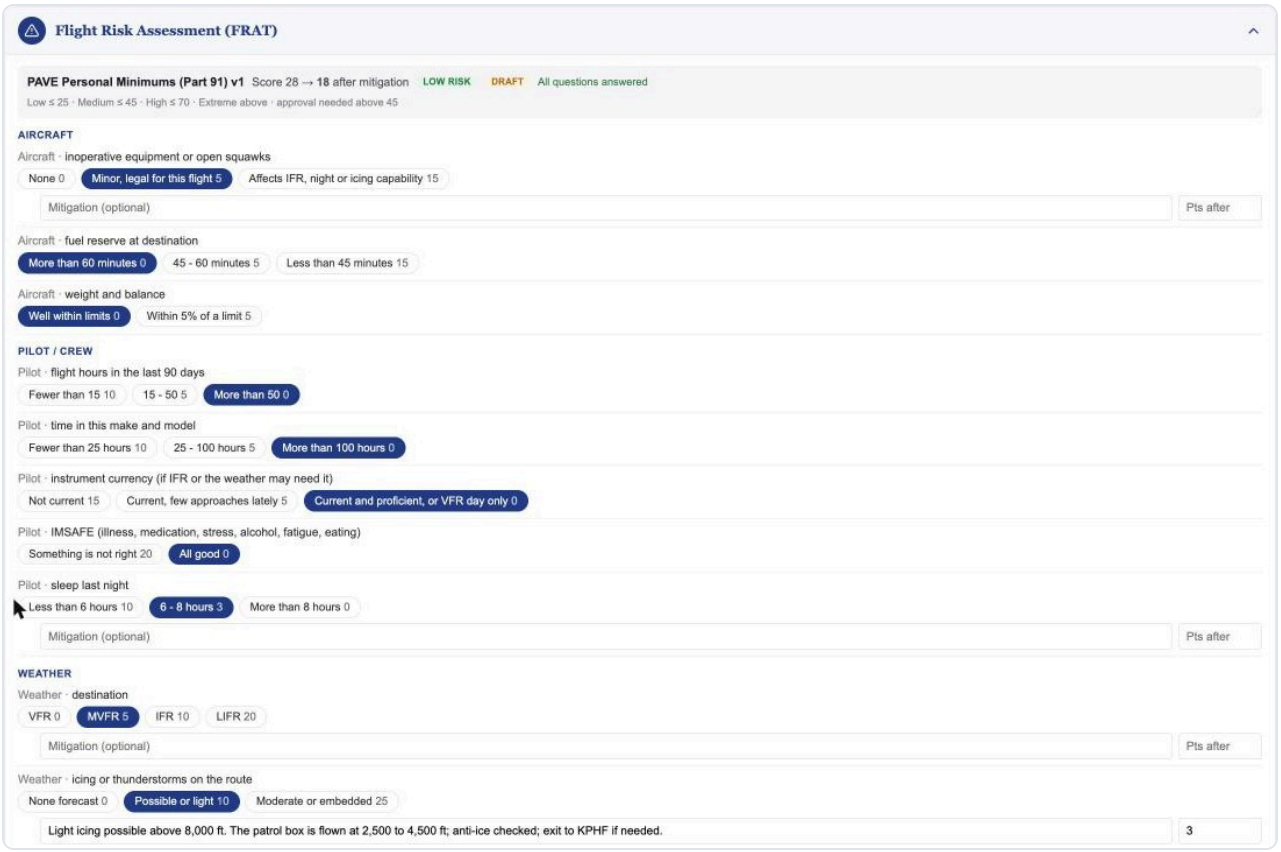
Release FR-261028-001 as a draft: the readiness check for the pilot, the aircraft status check and the FRAT are still to do.

Sections of a release

Section	What's in it
Header and aircraft	Operating rule, aircraft, flight number and date, IFR or VFR, operational control entity (91K), ETOPS
Route and airports	Departure, destination, route, ETD and ETA, alternates and other airports by role
Fuel and weather	Minimum fuel, taxi, trip, reserve, alternate and contingency; weather and NOTAMs reviewed; dangerous goods (adds a NOTOC list); MEL and deferred items; performance reference
Crew and readiness	The crew by position, with each person's medical, checks, route qualifications and cumulative time prefilled from their records, logbook currency, and fitness for duty
Aircraft status	Open discrepancies, grounding items and MEL deferrals pulled from maintenance, the last return to service, and the checks before flight
FRAT, load manifest, performance	See below
Sign and release	Dispatcher, PIC and operational control signatures where the rule requires them
Route brief, eAPIS, ForeFlight	Live airport and weather brief, the CBP eAPIS manifest for international flights, and .fpl / .gpx files for ForeFlight

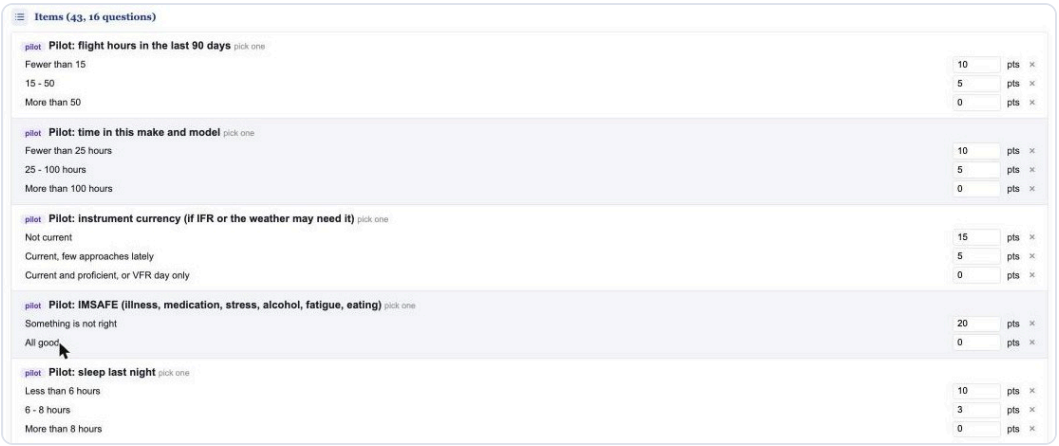
5 The release FRAT

Every released flight needs a finalized flight risk assessment. The crew answers the template's questions, the database scores it, and each answer that carries points can be mitigated with a note and lower points after mitigation. Above the template's approval limit, a FRAT approver has to approve it before the flight can be released; those wait under **Pending FRATs**. A finalized FRAT can't be edited.



Wednesday's FRAT on the PAVE template: 28 points before mitigation, 18 after. Light icing above 8,000 ft is mitigated by the patrol altitude and an exit plan to KPHF.

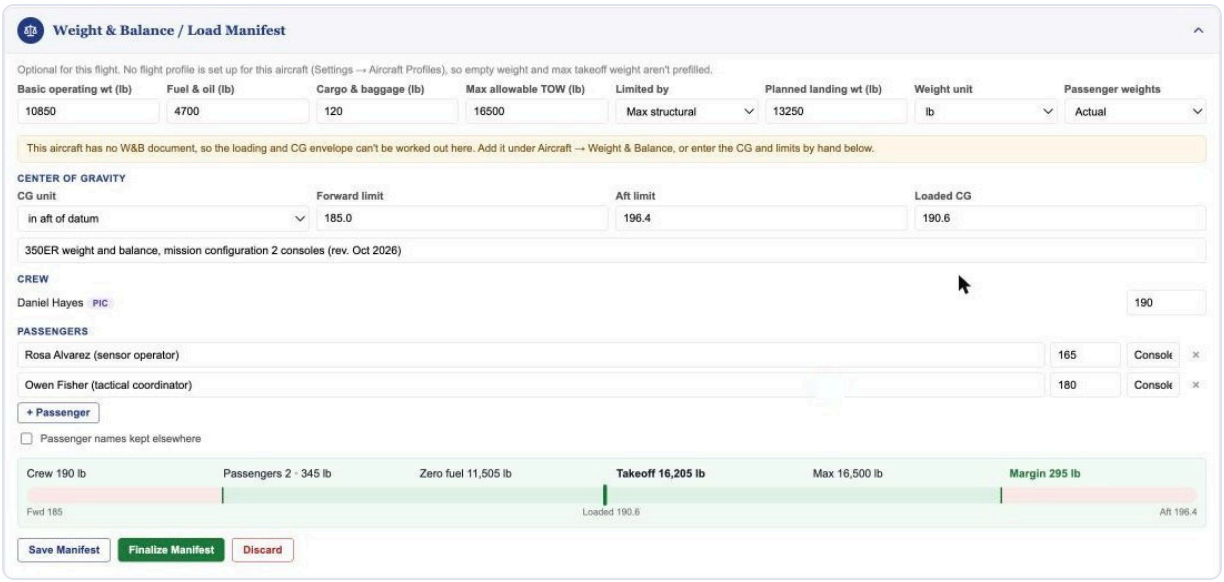
Four standard templates come with Avistrata and can be added in one click: PAVE personal minimums (Part 91), Part 135 charter (two-crew turbine), flight training and rental, and maintenance test and ferry flights. Each is a starting point for your own points and limits. To change a template in use, you add a new version; existing FRATs keep the version they were scored against.



The PAVE template: 16 questions with points per answer, grouped by pilot, aircraft, environment and external pressures.

5 The release WEIGHT & BALANCE

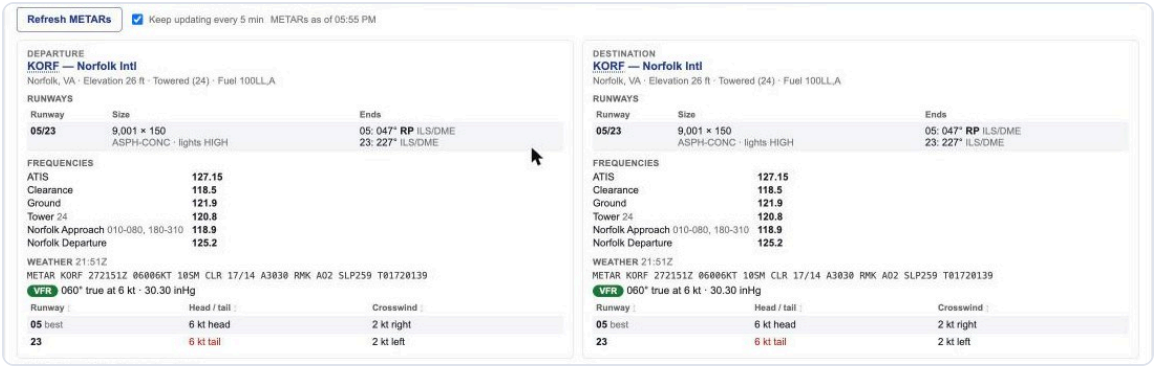
The load manifest takes the basic operating weight, fuel and oil, cargo, crew and passengers by seat, and checks takeoff weight against the limit and the loaded CG against the envelope. When the aircraft has a weight and balance document, stations, tanks and the CG envelope are worked out from it; otherwise the limits are entered by hand. The database refuses to finalize a manifest that is overweight or out of CG limits. After it's finalized, any change is recorded as a last-minute change, and the preparer and the PIC sign.



Wednesday's manifest: the pilot and two mission crew at their consoles. Takeoff weight is 16,205 lb against 16,500 lb, and the loaded CG of 190.6 in sits inside the 185.0 to 196.4 in envelope.

Route brief

The route brief on the release shows both airports with runways, frequencies and the live METAR, which wind each runway end gets, and the ATC frequencies along the route. METARs refresh every 5 minutes while it's open, and it prints as a PDF for the flight package.

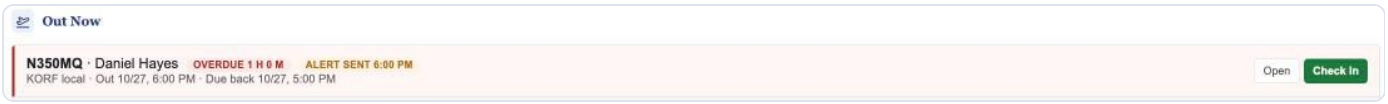


The KORF brief at release time, with the head- and tailwind for each runway end.

Release and amend. Once released, the header, crew, airports and readiness checks become read-only and the booking is dispatched. Changes go through an amendment, which needs approval. **Print Flight Package** picks the sections and copies for the paper package: the release, takeoff performance, route brief, weight and balance with the CG envelope drawn, load manifest, FRAT worksheet, and a crew sheet with each person's medical, checks, duty status and a fitness-for-duty signature line.

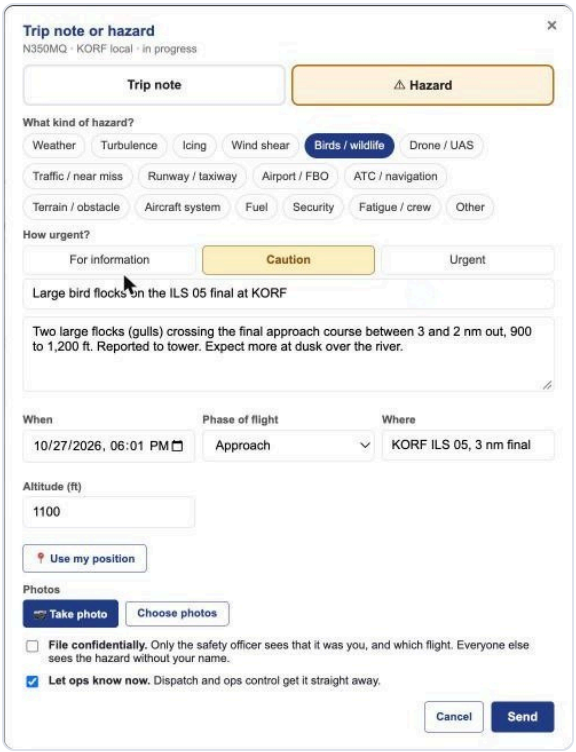
6 In the air

Flight Following lists every flight that is out, with its release, when it went out and when it's due back. Every 5 minutes Avistrata checks flights still out past their booked end plus a grace period. For each one it alerts the crew, the dispatcher, operations control, the director of operations, the chief pilot and the admins by web push and email, at most twice per flight, with the aircraft's last known position from flight tracking.



Tuesday's sortie, due back at 5 PM, shown overdue at 6 PM after the alert went out. Check In is one click away.

- **Flight Tracking** shows recent flights and the live position for a tail number from the tracking provider set up on the server (Flightradar24 by default, FlightAware as the alternative). Flight Following keeps its own automatic record of dispatched flights.
- **Flight recording.** On a phone mounted in the cockpit, the Avistrata web app records position, altitude, groundspeed and g-load once a second. The flight can be replayed with exceedances marked, and the recorded times go to maintenance for approval.
- **Hazard reports from the flight.** The crew can report a hazard during or after the flight, with what kind, how urgent, phase of flight, where, GPS position and altitude, and photos. A report can be filed confidentially, so only the safety officer sees who filed it, and "Let ops know now" sends it straight to dispatch and operations control. Reports are saved on the device first and sent when there's a connection.



Daniel's hazard report: two flocks of gulls crossing the ILS 05 final at 900 to 1,200 ft.

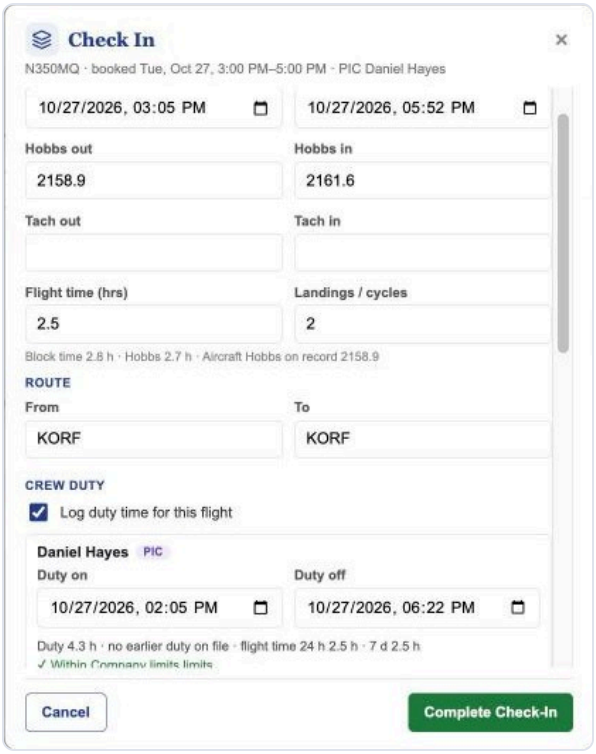
When something goes wrong

Avistrata doesn't replace ATC or your emergency procedures. Emergencies are declared on the radio. What it does is make sure the people on the ground know, and that the follow-up happens:

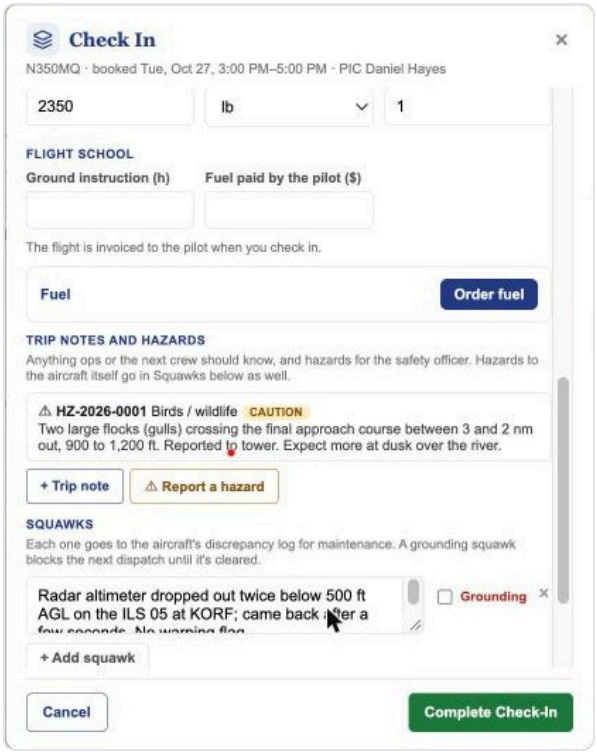
- **Overdue aircraft** raise the alert above without anyone watching the board.
- **Urgent hazards** with "Let ops know now" reach dispatch at once.
- **A grounding squawk** at check-in blocks the next dispatch and release until maintenance clears it.
- **Declare AOG** opens an AOG event, creates the grounding item, and notifies the group's AOG list at every step until the aircraft is returned to service in maintenance.
- **The SMS** holds the emergency response plan for everyone to read and sign, and investigations of accidents, incidents and occurrences (section 9).
- **The eAPIS manifest** carries the operator's 24-hour emergency contact on international flights.

7 Check-in

After landing, the pilot checks in from Flight Following, My Flights or the booking. Block times, Hobbs and tach are prefilled where Avistrata knows them, and the form works out block and Hobbs time as you type. Duty on and off is logged for each crew member and checked against the limits straight away.



Times, Hobbs, landings, route and duty. Daniel's 4.3-hour duty day is within the company limits.



Fuel added, the hazard filed in flight, and the squawk for maintenance. The Grounding box decides whether it blocks the next flight.

What one check-in does

Record	What changes
Aircraft	Hobbs, tach and airframe hours move forward, so inspections due on hours count down with them
Flight log	The flight is added to the aircraft's history, and to the flight activity review by mission and customer
Discrepancy log	Each squawk goes to the aircraft's discrepancy log, Maintenance Control is alerted, and a grounding squawk blocks the next dispatch
Duty	Duty periods are written for the crew, so the next booking's rest and duty check uses the actual times
Pilot logbook	The flight waits in the pilot's logbook for them to confirm, with approaches, holds and landings; confirmed entries drive 61.57 currency
Release and booking	The release is closed and the booking completed; charter and rental flights are invoiced from the actual times

The fuel section can also order fuel, and flight school check-ins add ground instruction and fuel paid by the pilot.

8 Squawks to maintenance

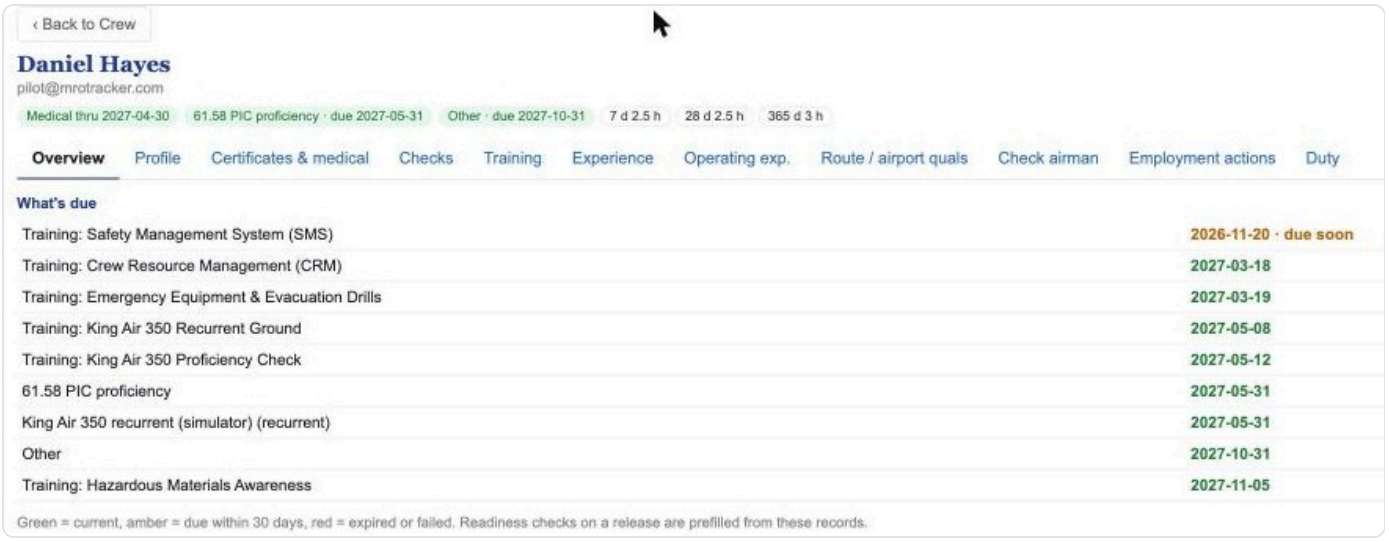
Tuesday's radar altimeter squawk lands in N350MQ's discrepancy log and on the **New discrepancies** list on Home, in both the Operations and the Maintenance workspace, where someone marks it reviewed. From there Maintenance Control turns it into a task card on a work order; approving the card closes the squawk. The lifecycle brief, *From first call to first mission*, follows that path on the hangar floor.

- **Grounding items** block dispatch and release until corrective action is signed.
- **MEL deferrals** come from the aircraft type's active MEL list with dual sign-off, and an expired deferral blocks the release.
- **The AOG desk** tracks status, ETR, the parts being sourced with PO, tracking and 8130-3, and the affected bookings. The database won't close an AOG event while its grounding item is open, so the return to service is always signed off in maintenance.
- **Aircraft status** on the release reads all of this, so dispatch sees what maintenance sees.

> **One record, both sides.** Pilots and dispatch never re-type a squawk for maintenance, and maintenance never phones operations to say an aircraft is down. The grounding item is the message.

9 Crew records and training

Every crew check reads the pilot's qualification file under **Crew Records**. The header shows the medical, checks and flight time at a glance. **What's due** lists every check and course with its next due date, green when current, amber within 30 days and red when expired or failed.

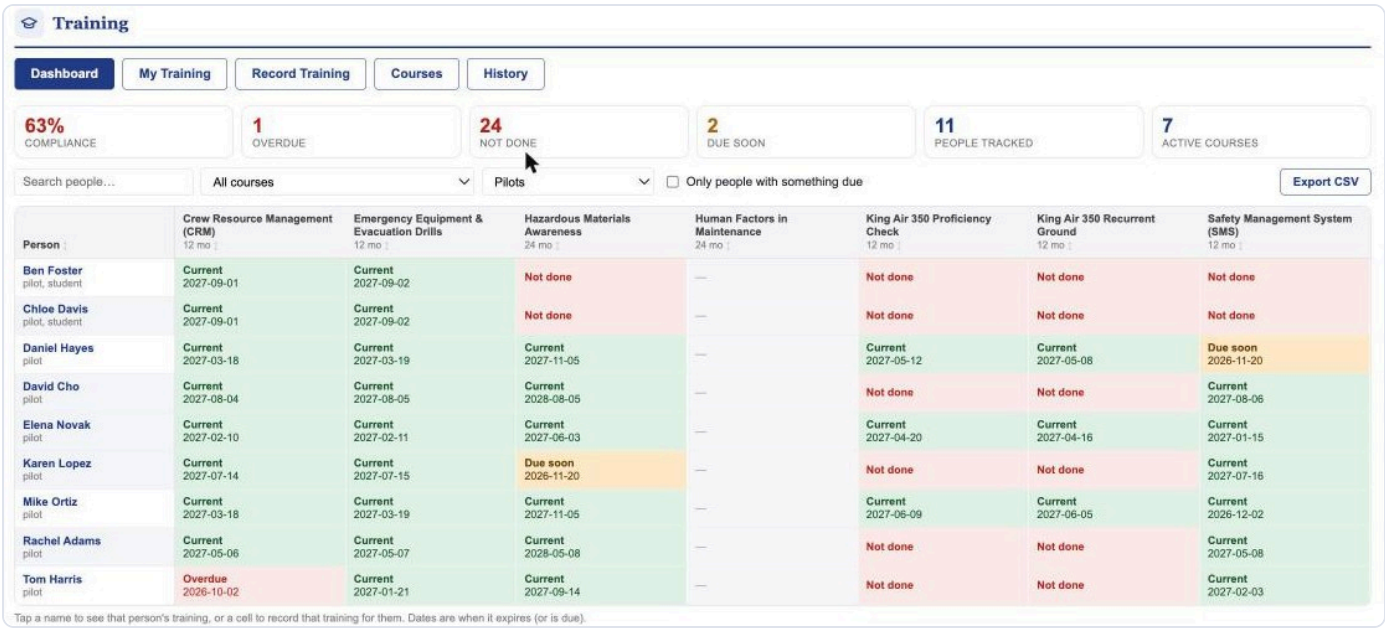


Daniel Hayes: first-class medical through April 2027, the 61.58 proficiency check and a mission line check current, and SMS training due within 30 days.

Tab	What it holds
Profile	Current duties (for example PIC B350), hire and separation dates, drug and alcohol program, PRD reporting, address
Certificates and medical	Pilot certificates and medicals with expiry
Checks	135.293(a) and (b), 135.297 IPC, 135.299 line checks, 91.1065, 61.58, 121 checks, with result, next due, examiner and the 8410-3 scan
Training	Initial, recurrent, transition, upgrade, differences and requalification, with the training record
Experience and operating experience	Total, PIC, SIC, multiengine, instrument, night and cross-country time, time in type, and OE hours and cycles
Route and airport qualifications	Routes and special airports with qualified and expiry dates
Check airman, employment, duty	Check airman authorizations, employment actions (director of operations and chief pilot only), and the duty history

9 Crew records and training TRAINING

The **Training** module covers pilots, mechanics and inspectors alike. Courses carry a recurrence, a warning window, who they're required for and the regulation they meet. Records hold pass or fail, the instructor, hours, notes and a file, and expiry is worked out from the course interval. Every pass also goes into the person's crew file, so an expired course blocks or warns at dispatch automatically.



The training dashboard for pilots: compliance, overdue and due soon, by person and course. Click a cell to record training.

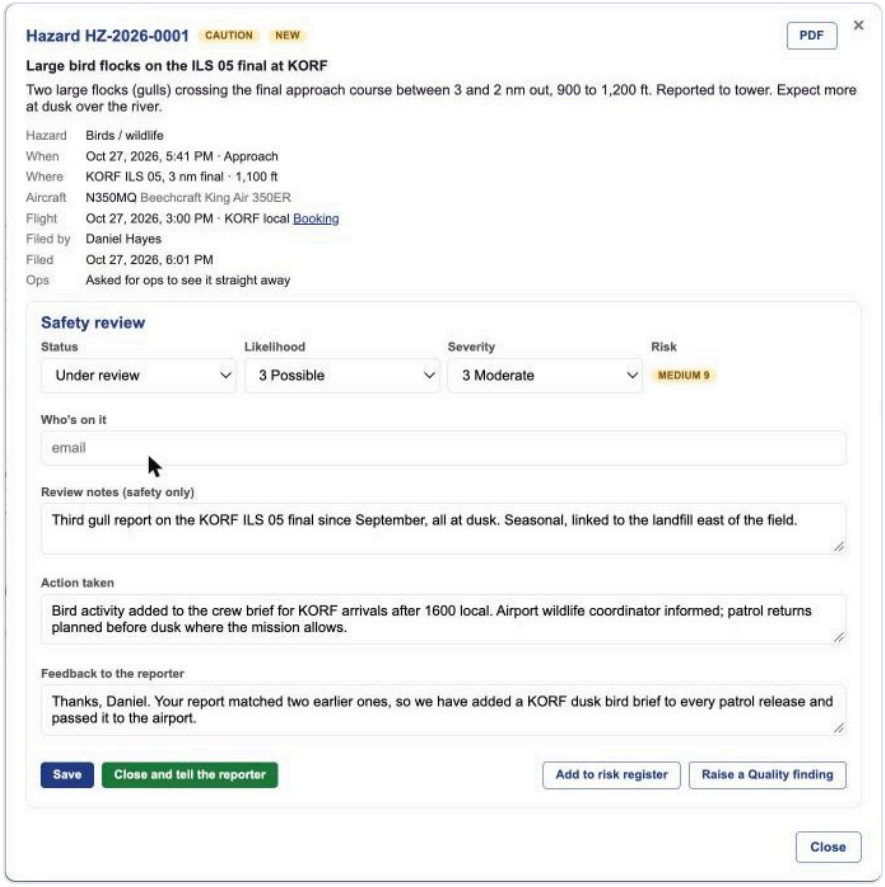
- **Assignments** require a course of one person, with its own due date, on top of the role-based rules.
- **My Training** shows everyone else their own records and what is coming due; courses and records are kept by admins and the training, director of operations, chief pilot and director of maintenance roles.
- **Training due** under Crew Planning lists checks and courses coming due, and books them on the roster as training (sim slot, location, check airman) before they lapse.
- **The crew sheet** in the printed flight package lists each crew member's training due.

10 Safety: from one report to the system

Trip Reports is the safety officer's queue: hazards to review, trip notes for the ops desk to acknowledge, and each person's own reports. The safety officer sets likelihood and severity (Avistrata shows the risk), assigns someone, records what was found and done, and writes feedback that the reporter gets when the report is closed. From the same screen a hazard can go into the SMS risk register or become a Quality finding.



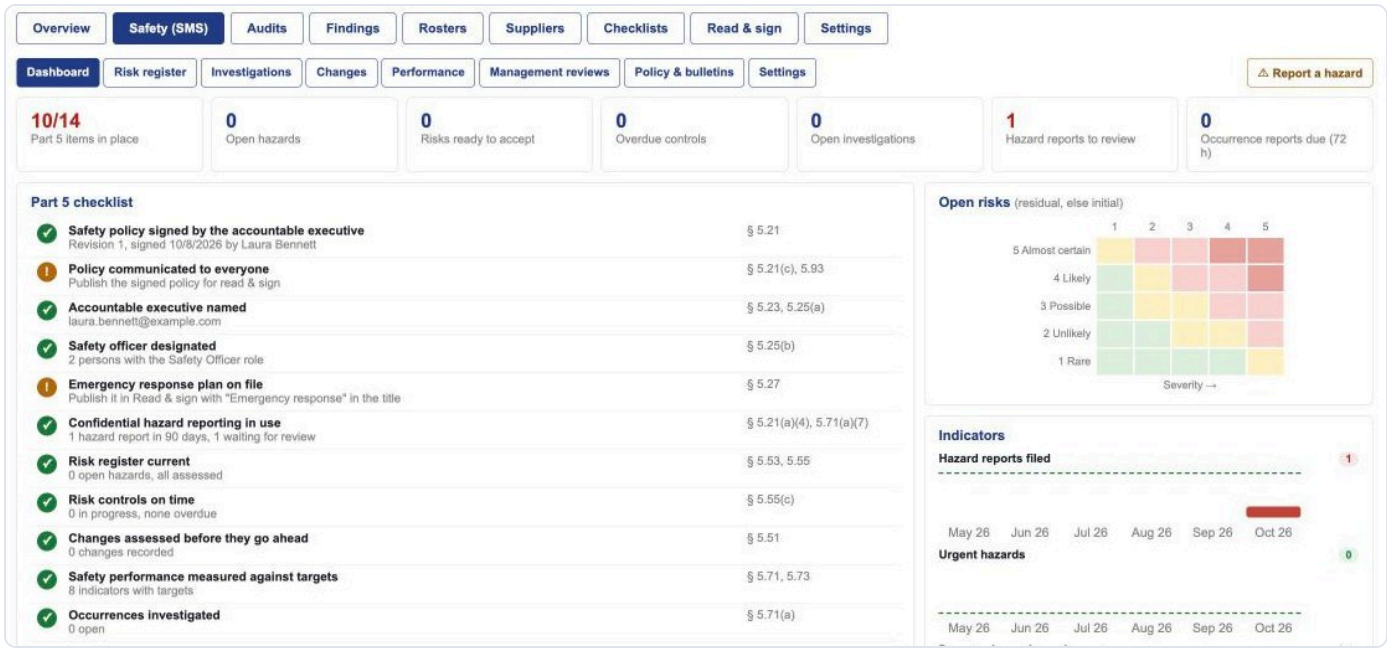
Tuesday's bird hazard in the queue, with its number, category, urgency, place and aircraft.



The safety review: possible likelihood and moderate severity give a medium risk of 9. A dusk bird brief is added to patrol releases, and Daniel is thanked for the report.

10 Safety PART 5 SMS

The **Safety (SMS)** section under Quality is built around 14 CFR Part 5. Its dashboard is a checklist of the Part 5 elements, each with its section reference and what's still missing, next to the open risks on a 5 × 5 matrix and the safety performance indicators.



The sample's SMS dashboard: 10 of 14 Part 5 items in place. The policy still has to be communicated to everyone, and an emergency response plan has to be published in Read & sign.

Part	What it does
Risk register	Hazards with initial and residual risk, controls with owners and due dates, and risk acceptance
Investigations	Accidents, incidents and occurrences, with root cause, contributing factors and the hazards found
Changes	Management of change: new aircraft, routes, procedures or people assessed before they go ahead
Performance	Safety performance indicators with targets, fed by hazard reports and investigations
Management reviews	The accountable executive's reviews, with decisions and actions
Policy and bulletins	The safety policy, the emergency response plan and safety bulletins, each read and signed by everyone it's for

For EASA operators, the SMS also covers mandatory occurrence reporting under EU 376/2014, with its 72-hour deadline on the dashboard. For audits, Quality prints an **auditor packet** (training, authorizations, findings and rosters in one PDF) and a **Safety Review Board** pack.

11 The pilot's own tools

Pilots can make **My Flights** their home screen. It brings together what a pilot needs before and after a trip, from the same records dispatch uses:

On My Flights	What it gives the pilot
My status	Medical, checks, required training, rest and duty, and flight time over 24 hours, 7 days and 28 days
Out now	The flight they're on, with a big Check In button and Report a hazard
Next 14 days	Each flight with its release, FRAT and load manifest state and their own crew checks; accept or decline trips
Open flights	Flights without a pilot that they can ask to fly
Logbook	Flights from Avistrata to confirm, ForeFlight imports, and 61.57 currency for passengers, night and IFR
Trip planner, airports, my routes	Planning, saved routes and airports, and a weather email at the times they choose
Expenses	Trip expenses with a receipt photo, submitted for approval; approved ones export to Expensify, SAP Concur or Brex, and billable ones go on the charter invoice
Contract flying	For a pilot who flies for several owners: clients and aircraft, trips with day, travel and hourly rates and per diem, receipts, and invoices emailed with the receipts attached

Flight schools get their own edition on the same records: students, lessons graded and signed, AC 61-65 endorsements, aircraft checkouts, accounts and block-time packages, with rental and instruction invoiced at check-in.

12 Who uses what

Role	Where they work	What Avistrata *does for them*
Director of operations	Settings, Today, flight activity review, crew records	Sets the rules once; sees the whole operation and every override
Chief pilot	Crew Planning, Crew Records, Training	Roster, time off and swaps, checks and training due, look-ahead rest and duty
Dispatcher / ops control	Schedule, Flights Board, releases, Flight Following	Books and releases with every check done for them; overdue alerts without watching the board
FRAT approver	Pending FRATs	Approves the flights above the company's risk limit
Pilot	My Flights, check-in, logbook	Own status and trips, check-in in a minute, squawks and hazards in the same form
Load agent	Load manifest	Weight and CG checked as it's built; last-minute changes recorded
Safety officer	Trip Reports, Quality → Safety (SMS)	Every hazard in one queue, risk-scored, fed into the register and indicators
Maintenance Control	Discrepancy log, task cards, AOG desk	Squawks arrive from check-in; grounding and MEL status flows back to dispatch
Training staff	Training, Crew Records	Courses, records and expiry; passes reach the crew checks automatically

Records you can show an inspector

- Releases with the FRAT, manifest, crew readiness and aircraft status as they were when signed, plus every amendment and last-minute change.
- Every crew-check override, with who made it and why.
- Duty periods from check-ins, checked against the rule set and the company limits.
- Crew qualification files with checks, scans and training records.
- Hazard reports with the safety review, actions and feedback, and the SMS checklist against Part 5.

Getting started

1. Add your operating authorities, flight roles and aircraft profiles.
2. Set the dispatch rules and the flight and duty limits you fly under.
3. Add the standard FRAT templates and adjust the points and limits.
4. Enter each pilot's medical, checks and training, and your training courses.
5. Build the first month's roster and turn on the daily email.
6. Book, release and check in one flight end to end before you go live.

Companion brief: *From first call to first mission* follows the maintenance side, from winning the work to delivering the aircraft. © 2026 Leesburg Aviation LLC. All rights reserved.