



From first call to first mission

A special mission aircraft program, start to finish, in MRO Tracker

For aircraft operators, integrators and their customers · MRO Tracker 2.2

This brief follows one program through MRO Tracker: winning the work, signing the contract, planning the build, doing the work on the hangar floor, delivering the aircraft and flying it on missions. Each stage builds on the one before it, in the same system and from the same records, so nothing is typed in twice.

The sample program. A coastal patrol agency needs two Beechcraft King Air 350ER converted for maritime patrol: a belly search radar and radome, an EO/IR turret, two operator consoles in the cabin, SATCOM and mission power, plus the phase inspections due at induction. The contract is \$4.85 million, firm fixed price. Aircraft 1 has been delivered and is starting patrol flights; aircraft 2 is halfway through its installation. **Every company, person, tail number and figure in this brief is fictional.** The screenshots are real MRO Tracker screens showing this sample data. The sample was entered in one sitting, so some records (signatures, the AI plan, notifications) carry the date it was entered.

1 · Win	2 · Sign	3 · Plan	4 · Run	5 · Build	6 · Deliver	7 · Fly	8 · Support
Lead, opportunity and business case	Contract with e-signature	Work orders and task cards from the case	Program, schedule, resources and what-ifs	Task cards signed off on the floor	Induction, redelivery and acceptance	Dispatch, crew checks and squawks	Engineering, hangar, stores and AOG

When	What happened in the sample
March 2026	A lead from a trade show becomes an opportunity. Calls, a hangar visit and a product demo are logged against it.
April to May	The business case is reviewed at SIOP, approved to bid, submitted and won on 29 May.
June	Both parties sign the contract online. The AI plan turns the case into 12 work orders with 62 task cards, and the program starts.
June to October	Aircraft 1 is inducted, inspected, modified and test flown. The customer signs its acceptance certificate on 27 October.
September to December	Aircraft 2 is inducted and is in its avionics installation now. The program manager models extra technicians and overtime to protect its December delivery.
From 27 October	Aircraft 1 starts crew training and patrol sorties. The first squawk goes to maintenance the same day.

1 Win the work

Business Development keeps the whole pursuit in one place. The lead and its opportunity hold the company, the contact who will sign, the value, the stage and the next step. Every call, visit, demo and email is logged against them, so anyone picking up the account sees its history.

Activity

Email

Log activity

Meeting

Proposal walkthrough and negotiation

Jonas Gyllensvaan · May 20, 2026, 11:00 AM

Agreed FFP \$4.85M, two aircraft, first delivery 9 October.

Demo

Product demo: work orders, task cards and the customer portal

Jonas Gyllensvaan · Apr 2, 2026, 11:00 AM

Showed how they would follow the work: task card progress, aircraft status and maintenance due on a private read-only link.

Site visit

Customer visit to the hangar

Jonas Gyllensvaan · Mar 19, 2026, 10:00 AM

Walked the induction bay, reviewed a previous sensor integration, met the avionics lead.

Call

Discovery call: mission, aircraft, timeline

Jonas Gyllensvaan · Mar 5, 2026, 11:00 AM

Two aircraft, 350ER, search radar plus EO/IR, two operator consoles, SATCOM. First aircraft needed by October.

The opportunity's activity: discovery call, hangar visit, product demo and the negotiation meeting.

The business case

The bid is worked up as a business case on the organization's own template, here a SIOP review template. It covers the scope questionnaire, a complexity matrix, the hours by function, a high-level schedule, the aircraft involved, long-lead materials, risks, actions and the decisions needed at review. The case moves through **Preparing → SIOP review → Approved to bid → Submitted → Won**, with revisions, reviews, tasks and reminders along the way.

All business cases

BC-2026-002 · Sample D · Maritime patrol conversion, two King Air 350ER Won v1.0

Won

Calendar

Team (1)

Remind people

Save revision

Import

PDF

Word

Delete

✓ Preparing

✓ SIOP review

✓ Approved to bid

✓ Submitted

Won

Plan work orders with AI

Create one work order

Won. Run it as a program: contract, deliverables, risks, changes and furnished items.

Start program

\$4,850,000.00

Value · pWIN 70%

—

Progress (items being worked)

0 / 0

Open items / tasks

0

Overdue

0

Due in 7 days

CTS 20 · 14 of 14

FOPS 3 · 1 of 1

NUDD 29 · 11 of 14

TOPS 8 · 3 of 3

PuriLog 5 · 2 of 2

Security 0 · 0 of 1

Financial 5 · 5 of 5

Engineering 2 · 1 of 1

Fabrication 2 · 1 of 1

Complexity scores

Opportunity information · Key dates and financial information · Opportunity background / description · Preliminary scope definition · Basic mod / ops checklist · Project complexity matrix · Resource allocation · High level schedule baseline · Aircraft / platform assignment · Materials and long-lead items · Risks, issues, dependencies · Actions and commitments · Decisions requested at SIOP · Sources and handling · Expand all · Collapse all

The won case: value and pWIN, complexity scores by domain, and from here, one click each to plan the work orders or start the program.

MRO Tracker · From first call to first mission · Page 2 of 18

2 Sign the contract

The contract is written from a template with the deal's details filled in (customer, value, billing terms, dates) and sent for signature from MRO Tracker. Each signer gets a personal link in turn: the customer first, then the company's authorized signer. They read the whole contract, type or draw a signature and agree to sign electronically.

Your signature

Full name: Morgan Hale Title: Director, Aviation Programs Email: morgan.hale@example.com

Draw Type Clear

Morgan Hale

Comment (optional; required if you decline)

☒ I agree to sign this contract electronically. My electronic signature is legally binding, the same as a handwritten signature. I have read the whole contract above and accept it.

Sign the contract Decline

Your name, title, signature, email, the time, your IP address and browser, and the contract's fingerprint are recorded with your answer.

The customer's signing page.

Once a contract is out for signature, its terms are locked. A change after signing is made as an amendment or a renewal, so the signed version always stays as it was signed.

Signatures

COASTAL PATROL AGENCY (SAMPLE) DEMO

Morgan Hale *Jonas Gyllensvaan*

Morgan Hale, Director, Aviation Programs Jonas Gyllensvaan, Accountable manager

Signed by both parties, in order. The signing record keeps each signature with its time, and the signed version carries a SHA-256 fingerprint of its text.

Demo

Please sign CT-2026-0002: Aircraft modification and integration agreement – maritime patrol, two King Air 350ER

Hello Jonas Gyllensvaan,

Demo has sent you **Aircraft modification and integration agreement – maritime patrol, two King Air 350ER** (CT-2026-0002) to review and sign on behalf of Demo.

Contract	CT-2026-0002 · version 1
Type	Service agreement
Between	Coastal Patrol Agency (sample) and Demo
Value	\$4,850,000.00 · 30% at award, 20% at each aircraft induction, 15% at each aircraft acceptance
Term	Jun 1, 2026 to Feb 28, 2027

The link is personal to you. You can read the whole contract before you sign, or decline it with a comment.

Review and sign

Sent with MRO Tracker 2.2 · © 2026 Leesburg Aviation LLC. All rights reserved.

Each signer is emailed in turn with a personal link.

Demo

Signed: CT-2026-0002 Aircraft modification and integration agreement – maritime patrol, two King Air 350ER

Every party has signed **Aircraft modification and integration agreement – maritime patrol, two King Air 350ER** (CT-2026-0002, version 1). It is now in effect.

Morgan Hale , Director, Aviation Programs Coastal Patrol Agency (sample)	Oct 27, 2026, 5:49 PM UTC
Jonas Gyllensvaan , Accountable manager Demo	Oct 27, 2026, 5:50 PM UTC

Document fingerprint (SHA-256):
50c320987788c68d0fd7cefb78919f11a566b875e1fcd7d42277dbabe1771b9

Open the signed contract to read, print or save it as a PDF.

Open the signed contract

Sent with MRO Tracker 2.2 · © 2026 Leesburg Aviation LLC. All rights reserved.

When the last party signs, everyone gets the signed copy with the signing times and the fingerprint.

3 From business case to work orders, automatically

On a won case, **Plan work orders with AI** reads the case (scope, aircraft, hours by function, long-lead items, schedule) and proposes the work orders it needs: one per aircraft and department where that makes sense, each with its task cards and the case row each card came from. It also lists what a planner should check before the work starts.

Work order plan · BC-2026-002 Sample D · Maritime patrol conversion, two King Air 350ER

The AI's proposal from the case. Change anything, untick what you don't want, then create them. Each work order gets its own number and its task cards, and is linked to the case. Rows already on a task card are unticked.

Check:

- Sheet-metal hours (row 302becd2) are given as 260 hrs per aircraft but the task breakdown (belly cut-out, doublers, fairing) does not specify how hours split across individual tasks — planner should allocate per engineering labour estimate.
- A&P hours (row 5b5df204) at 800 hrs per aircraft cover both phase inspection support and panel work; planner should confirm how many hours are attributable to the phase inspection work order versus the structural modification work order once engineering issues the task breakdown.
- Quality hours (row 23319527) at 190 hrs per aircraft are assigned to the quality work order; planner should confirm whether any RII hours are separately trackable within the modification work orders under Part 145 requirements.
- Flight test hours (row d769788d) are given as 30 hrs per aircraft total for ground test and two FCFs; the split between ground-test labour and flight hours is not specified — planner should confirm with Flight Test how to charge ground vs. airborne time.
- Engineering hours (row fd9f58e9) at 1,450 hrs total cover both aircraft; the case does not state whether this is per aircraft or combined — confirmed as combined based on wording, but planner should verify with Engineering lead.
- Mission console lead time (row e1ab10bf) is triggered at engineering approval (2026-08-14), which gives only ~5 weeks before Aircraft 1 delivery (2026-10-09) against a 12-week lead time — this gap is a schedule risk the planner must escalate immediately.
- N351MQ (FL-9902) is noted as 'in customer service until September' (row 7a562b61); Aircraft 2 induction is scheduled 2026-09-14 — planner should confirm aircraft availability date is firm before committing the induction work order start.
- The case lists N172AP and N5287S (two Cessna 172S aircraft) in the organisation's fleet; they have no role in this business case and no work orders are created for them — flagged to confirm no support aircraft tasking is expected.
- EO/IR turret is customer-furnished equipment (CFE) with a customer delivery commitment of 1 August (row 9d819026); if the customer is late, Aircraft 1 modification schedule is directly at risk — planner should track this as a contract deliverable dependency.
- STC through partner ODA: the ODA review booking action (row fd386b2d) is due 2026-06-19 but ODA approval timing (row 1ba945ac) is unresolved; planner should confirm ODA schedule commitment before locking the engineering approval milestone date of 2026-08-14.
- Form 337 applicability alongside the STC is noted in the case; planner should confirm with Engineering and the Part 145 DMIR/ODA partner which specific installations require a Form 337 versus being covered under the STC data package.
- Cabin cooling for consoles is flagged as a configuration need; it is unclear whether a physical modification to the air-conditioning system is required or only a thermal analysis is needed — planner should not Engineering clarification before closing the avionics work order.

Work order 3 · Aircraft 1 modification Remove

All avionics, mission wiring, sensor integration and cabin-console installation work is performed by the Radio/Instrument shop and is grouped into one work order per aircraft to track avionics labour and parts together.

Aircraft: **N350MQ · Beechcraft King Air 350ER** Department: **A · Radio/Instrument**

Description: **N350MQ avionics and mission-system installation — radar, EO/IR turret, consoles, SATCOM, mission**

Task card	What to do	Hours
☒ Install mission power system Materials and long-lead items: Search radar and radome	Install dedicated mission power distribution rack	
☒ Install search radar and radome	Mount belly-mounted search radar antenna	
☒ Install EO/IR turret Materials and long-lead items: EO/IR turret	Mount customer-furnished EO/IR turret	
☒ Install two operator mission consoles and mission	Install two operator console assemblies and associated cables	
☒ Install SATCOM terminal and antenna Materials and long-lead items: SATCOM	Install SATCOM modem, amplifier and data interface cables	
☒ Install radar control head on cockpit pedestal	Install radar display/control head on pedestal	
☒ Integrate operator stations to aircraft ICS	Connect both operator console positions to aircraft ICS	
☒ Verify SATCOM data link — video and track data	Conduct bench-level functional test of video	

"Check" items the AI raised, for example: mission consoles ordered at engineering approval leave five weeks against a 12-week lead time.

A proposed work order: aircraft, department, description and its task cards. Anything can be changed, unticked or added to.

The planner reviews the proposal and clicks **Create**. Each work order gets its number and task cards and stays linked to the business case.

BC-2026-002 · Sample D · Maritime patrol conversion, two King Air 350ER Won v1.0

Save revision Import PDF Word Delete

Preparing SIOP review Approved to bid Submitted

WO 26-A0002 · open WO 26-M0007 · open WO 26-M0008 · open

Check the AI plan Plan more work orders with AI

Won. Run it as a program: contract, deliverables, milestones

Calendar Team (1) Remind people

WO 26-A0001 · open WO 26-M0006 · open WO 26-A0005 · open WO 26-A0006 · open

Start program

Created 12 work orders: 26-M0004 (2 task cards), 26-M0005 (6 task cards), 26-A0001 (11 task cards), 26-M0006 (3 task cards), 26-A0002 (4 task cards), 26-M0007 (2 task cards), 26-M0008 (6 task cards), 26-A0003 (11 task cards), 26-M0009 (3 task cards), 26-A0004 (4 task cards), 26-A0005 (9 task cards), 26-A0006 (1 task card).

Close OK

12 work orders and 62 task cards created from the case, shown as links on the case.

Data handling. Programs marked CUI or export controlled (ITAR) are visible only to their team and admins, and AI features are off for them.

4 Run it as a program

Start program creates the program from the case. The customer, aircraft, value, team, open scored risks and work orders all carry over from the case.

Start a program from BC-2026-002

The customer, aircraft, value, team, open scored risks and work orders come across from the business case.

Title * Maritime patrol conversion, two King Air 350ER (samy Prime (if we're a sub) Contract number CPA-PO-2026-118 Period of performance from 06/01/2026 Ceiling 4850000 Program manager Jonas Gyllensvaan	We are The prime Contract type Firm fixed price (FFP) Task / delivery order 02/28/2027 Funded 4850000
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☐ Controlled Unclassified Information (CUI)
☐ Export controlled (ITAR)

CUI and ITAR programs are visible only to their team and admins, and AI features are off for them.

Starting the program from the business case: contract type, number, period of performance, ceiling and funding.

[← All programs](#)

PGM-2026-002 · Maritime patrol conversion, two King Air 350ER (sample)
Active
Active

Overview

Schedule

Resources

Line items

Work orders

Deliverables

Risks

Changes

Furnished

Team

Files

History

Earned value

Quality

Reviews

Reports

Aircraft

Meetings

Actions

\$4,850,000.00
 Funded of
 \$4,850,000.00
 ceiling

1
 Deliverables due in
 14 days

100% / 100%
 On time / accepted
 first time

2
 Open risks

\$77,500.00
 Factored exposure

0 / 0
 Open changes /
 off-channel

0
 Furnished items
 late

Aircraft
[Open the Aircraft tab](#)

Aircraft	Status	Work orders open	Blocking delivery	Accepted
N350MQ	Delivered	0 of 5		Oct 27, 2026
N351MQ	In work	4 of 5	All work orders closed: 4 of 5 open: 26-A0003, 26-M0009, 26-A0004, 26-M0008; Return to service signed: not signed: 4.6 Aircraft 2 delivered (+4)	

The program overview: funding, deliverables due, on-time and first-time acceptance, open risks and their factored exposure, changes and furnished items. Each aircraft shows its status and what still blocks its delivery.

The program holds what a contract manager and program manager need: **line items** (CLINs, options included), **deliverables** with their submissions and acceptance, **risks** with likelihood, consequence and cost and schedule impact, **changes**, **customer-furnished equipment** with its required and promised dates, the team, meetings and action items, files and a full history.

Line items (CLINs and SLINs)								+ Line item
CLIN	Title	Type	Qty	Unit price	Celling	Funded	Period	Work orders
0001	Aircraft 1 (N350MQ) maritime patrol conversion	FFP	1 EA	\$2,300,000.00	\$2,300,000.00	\$2,300,000.00	Jun 1, 2026 to Oct 9, 2026	6
0002	Aircraft 2 (N351MQ) maritime patrol conversion	FFP	1 EA	\$2,300,000.00	\$2,300,000.00	\$2,300,000.00	Jun 1, 2026 to Dec 18, 2026	5
0003	Training, data and records package	FFP	1 LOT	\$250,000.00	\$250,000.00	\$250,000.00	Jun 1, 2026 to Feb 28, 2027	1
1001 Option	Option: 12 months sustainment support	FFP	12 MO	\$45,000.00	\$540,000.00	\$0.00	Mar 1, 2027 to Feb 29, 2028	
Total (CLINs)					\$4,850,000.00	\$4,850,000.00		
Options not exercised (1)					\$540,000.00			

Line items: one per aircraft, training and data, and a 12-month sustainment option, kept out of the total until it is exercised.

5 Plan the schedule and the people

The schedule is a work breakdown structure: control accounts, work packages and milestones, each work package linked to its work order. The baseline is frozen when the plan is agreed. From then on, every change shows against it.

Work breakdown structure									
WBS	Element	Method	Budget h	Linked	Start	Finish	Owner	Jun 1, 2026 to Feb 26, 2027	
1	Program management	Control account							
1.1	Program management and reporting	Signed-off task cards	640.0	1 WO Link...	Jun 1, 2026	Feb 26, 2027			
1.2	Kick-off meeting with the customer	Internal milestone				Jun 8, 2026			
	Done Jun 8, 2026								
2	Engineering	Control account							
2.1	Installation design and STC data package	Signed-off task cards	1,450.0	1 WO Link...	Jun 8, 2026	Aug 14, 2026			
2.2	Engineering approval (ODA)	Contract milestone				Aug 14, 2026			
	Done Aug 14, 2026								
3	Aircraft 1 - N350MQ	Control account							
3.1	Induction and Phase 1 & 2 inspection	Signed-off task cards	240.0	1 WO Link...	Jun 22, 2026	Jul 17, 2026			
3.2	Structural: belly cut-out, doublers, turret fairing	Signed-off task cards	660.0	1 WO Link...	Jul 20, 2026	Aug 21, 2026			
3.3	Avionics and mission systems install	Signed-off task cards	1,050.0	1 WO Link...	Aug 17, 2026	Oct 2, 2026			
						moved			
3.4	Ground test and functional check flights	Signed-off task cards	30.0	1 WO Link...	Oct 5, 2026	Oct 9, 2026			
						moved			
3.5	RII, conformity and return to service	Signed-off task cards	120.0	1 WO Link...	Oct 7, 2026	Oct 26, 2026			
						moved			
3.6	Aircraft 1 delivered	Delivery		26-M0006		Oct 27, 2026			
	Done Oct 26, 2026					moved			
4	Aircraft 2 - N351MQ	Control account							
4.1	Induction and Phase 3 & 4 inspection	Signed-off task cards	240.0	1 WO Link...	Sep 14, 2026	Oct 9, 2026			
4.2	Structural: belly cut-out, doublers, turret fairing	Signed-off task cards	660.0	1 WO Link...	Oct 12, 2026	Nov 13, 2026			

The WBS with the baseline (grey) under the current dates (navy). Aircraft 1's avionics finished a week late because the first customer-furnished turret arrived 11 days late, and the "moved" flags show it.

Resources (named people, roles with a headcount, equipment and bays) are assigned to the work with a share of their time. The resource load shows, week by week, who is booked against what they have across every program, and flags over-booking.

5 Plan the schedule and the people WHAT IF

In the sample, aircraft 2's avionics installation books the three avionics technicians at 143% for five weeks. Rather than finding out in December, the program manager models it. A **scenario** is a copy of the plan that can be changed without touching the real one:

- who works on which element, and at what share of their time
- more people, overtime or a second shift, extra working days
- a contractor or new hire added just for the scenario
- leveling: work waits while a resource is full, so the dates are realistic

Work already signed off keeps its dates; what is left is planned from today.

Scenarios (what if)								Compare	+ New scenario
Try a different resource allocation without touching the plan: who works on what, their share of time, more people, overtime or a second shift, a contractor or a new hire. Nothing changes until you Apply to plan. Each scenario shows when the program would finish, the hours and cost, and how loaded the resources are. Work already signed off keeps its dates; what is left is planned from today, and the load counts from this week.									
Scenario	Finish	vs plan	Last delivery	Hours	Cost	Peak load	Over-booked weeks		
Current plan	Feb 26, 2027		Dec 18, 2026	6,370	\$760,200.00	143%	5		
Current team, work waits for a free technician No changes: shows what the over-booking costs in time	Feb 25, 2027	-1 d	Dec 28, 2026 +10 d	6,370	\$758,508.94	100%	0	Open	Show on load Duplicate Apply to plan Delete
Two contract avionics technicians from 2 Nov Avionics pool 3 → 5 people; aircraft 2 install at 5 technicians	Feb 25, 2027	-1 d	Dec 9, 2026 -9 d	6,370	\$759,648.11	100%	0	Open	Show on load Duplicate Apply to plan Delete
Avionics overtime: six 10-hour days a week Current three technicians, 60 h a week each, Monday to Saturday	Feb 25, 2027	-1 d	Dec 11, 2026 -7 d	6,370	\$759,308.94	100%	0	Open	Show on load Duplicate Apply to plan Delete

Three scenarios against the current plan: finish, last aircraft delivery, hours, cost, peak load and over-booked weeks.

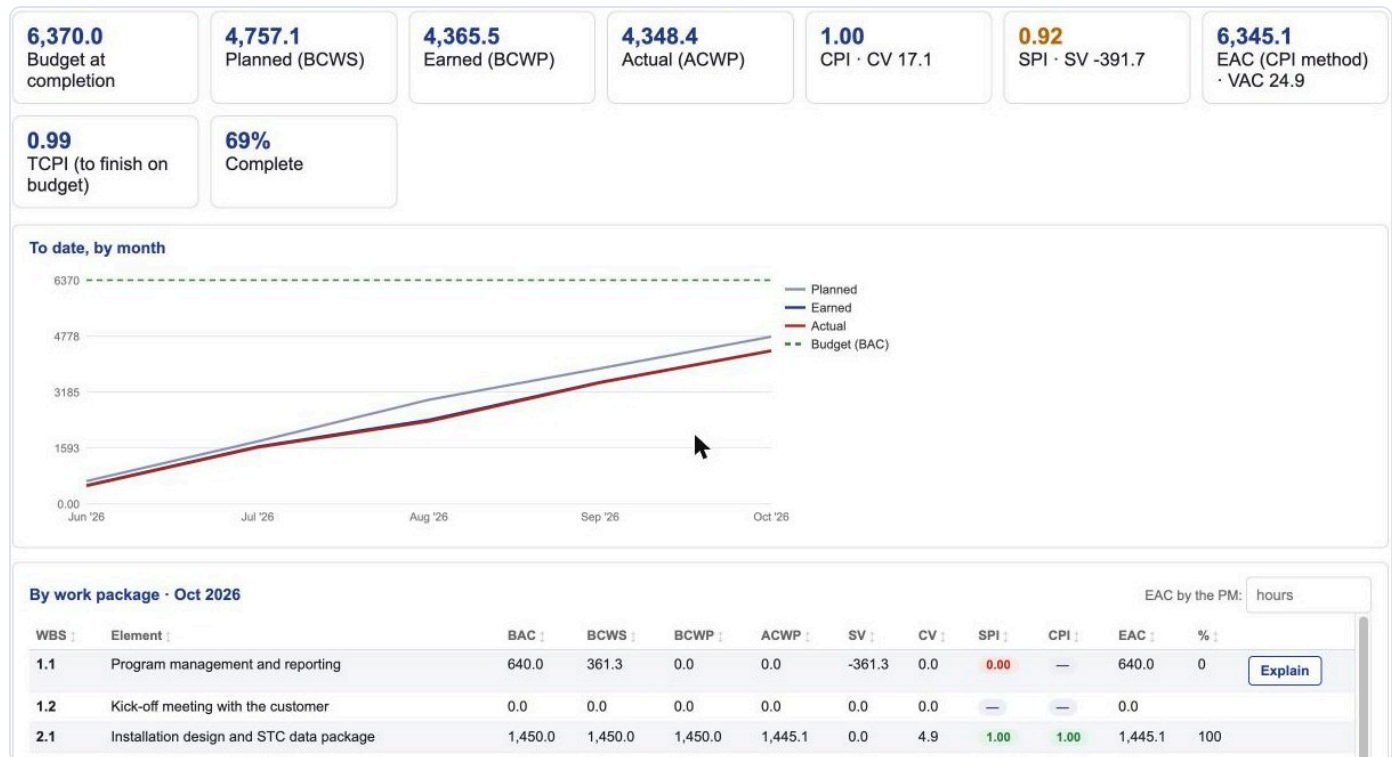
Compare scenarios:				
	Current plan	Current team, work waits for a free technician	Two contract avionics technicians from 2 Nov	Avionics overtime:
Finish	Feb 26, 2027	Feb 25, 2027	Feb 25, 2027	Feb 25, 2027
vs plan		-1 d	-1 d	-1 d
Hours	6,370	6,370	6,370	6,370
Cost	\$760,200.00	\$758,508.94	\$759,648.11	\$759,308.94
Peak load	143%	100%	100%	100%
Over-booked weeks	5	0	0	0
Level resources	Yes	Yes	Yes	Yes
Changes	no changes	Avionics technicians: 3 → 5 people; 2 assignment changes	Avionics technicians working days	
Milestones				
1.2 Kick-off meeting with the customer	Jun 8, 2026	Jun 8, 2026 same	Jun 8, 2026 same	Jun 8, 2026 same
2.2 Engineering approval (ODA)	Aug 14, 2026	Aug 14, 2026 same	Aug 14, 2026 same	Aug 14, 2026 same
3.6 Aircraft 1 delivered	Oct 27, 2026	Oct 26, 2026 -1 d	Oct 26, 2026 -1 d	Oct 26, 2026 -1 d
4.6 Aircraft 2 delivered	Dec 18, 2026	Dec 28, 2026 +10 d	Dec 9, 2026 -9 d	Dec 11, 2026 -7 d
5.3 Final data package accepted	Jan 15, 2027	Jan 11, 2027 -4 d	Dec 23, 2026 -23 d	Dec 25, 2026 -21 d

Bold: the best value in the row. Load and over-booking count this program's work only. To see a scenario with every other program's work, use Show on load.

Compare puts them side by side, down to each milestone. Waiting for the current team moves aircraft 2's delivery out by 10 days. Two contract technicians bring it 9 days earlier than planned; six 10-hour days a week bring it 7 days earlier. Apply to plan writes the chosen scenario's dates and assignments into the plan.

5 Keep score: earned value

Earned value is measured against the baseline. Work is earned as task cards are signed off (or by percent complete, 0/100, 50/50 or milestones, chosen per work package), and the actuals are the hours clocked on the task cards. It can be shown in hours, at sell price or at burdened cost, and each month can be closed.



The sample at the end of October: about 69% complete, cost on track (CPI 1.00) and slightly behind schedule (SPI 0.92), which matches the late turret and the aircraft 2 avionics crunch.

6 Build: work orders and task cards

On the hangar floor the work is the work orders and task cards the plan created. Mechanics and inspectors clock in on a card, kit and request parts, issue from stores, record the work done and sign it off. Required inspection items, dual FAA and EASA sign-offs and customer approvals are supported where they apply.

Work orders on this program							Find a work order by number...	Find
Work order	Description	Status	Opened	Hours worked	Parts cost	Line item		
26-A0095	Engineering — modification design package for both aircraft (radar, EO/IR, consoles, SATCOM, mission power, structural, STC support)	Closed	Jun 8, 2026	1445.1		0001	Remove	
26-A0002	N350MQ ground test and functional check flights	Closed	Oct 5, 2026	29.9		0001	Remove	
26-A0003	N351MQ avionics and mission-system installation — radar, EO/IR turret, consoles, SATCOM, mission power, ICS, cockpit control head	In work	Oct 26, 2026	100.3		0002	Remove	
26-M0007	N351MQ Phase 3 & 4 inspection at induction	Closed	Sep 14, 2026	252.0		0002	Remove	
26-M0009	N351MQ quality inspection — RII, conformity and final inspection	Open		0.0		0002	Remove	
26-M0006	N350MQ quality inspection — RII, conformity and final inspection	Closed	Oct 7, 2026	114.8		0001	Remove	
26-M0005	N350MQ structural fabrication — belly cut-out, doublers, turret fairing and mounts	Closed	Jul 20, 2026	662.2		0001	Remove	
26-A0004	N351MQ ground test and functional check flights	Open		0.0		0002	Remove	
26-A0006	Programme management — project oversight across both aircraft for 9 months	In work	Jun 1, 2026	0.0		0003	Remove	
26-M0008	N351MQ structural fabrication — belly cut-out, doublers, turret fairing and mounts	In work	Oct 12, 2026	451.0		0002	Remove	

Hours worked are clocked time on the task cards plus labor lines. Earned value from them is on the Earned value tab.

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

Work Order 26-A0003

26-A0003

Coastal Patrol Agency (sample)

N351MQ avionics and mission-system installation — radar, EO/IR turret, consoles, SATCOM, mission power, ICS, cockpit control head

OPENED: 10/26/2026

SCOPE: Phase Aircraft 2 modification - From business case BC-2026-002

TASK: Avionics upgrade / install

CUSTOMER REQ ID: CPN-PO-2026-118

HOURS WORKED: 100.3 h (clocked)

In Work

+ Add Task Card

Save as Template...

Edit

Logbook sticker

Release to service (CRS)

Ask engineering

History

Estimate

Invoice

Close Work Order

Task Cards on this Work Order

Aircraft 2's avionics work order, linked back to business case BC-2026-002.

1 — Install mission power system — N351MQ

Created by jmaran@gylfennovan.com · 10/27/2026, 1:32:56 PM

History

Void Card

Print

Logbook sticker

Ask engineering

Customer request

Clock In

Time Log

Card Barcode (for tool checkout)

Tools

WFO MNT No: 009663

Tail No: N351MQ

Type/Model: Beechcraft King Air 350ER

Altitude: 576

FL: 9902

Source Document: Business case BC-2026-002

Estimated Hours: \$5.5

Corrective Action: Aircraft 2 modification

Discrepancy

Install dedicated mission power distribution unit, wiring, circuit breakers and load management per engineering wiring diagrams; verify load compliance with aircraft electrical system.

Apply a saved kit template...

Apply

Save as Template

Part / material needed

Qty

Bin / location (optional)

Nothing listed yet — add a part or material above.

Work Items

No work items yet — add one above.

A task card: time log, tools, kitting and the work to do.

The customer can follow along without a login. A private, read-only portal link shows their aircraft, the work in progress with task card progress, aircraft status, maintenance due and, if switched on, documents and billing.

Demo

Coastal Patrol Agency (sample) · updated 10/27/2026, 2:12:06 PM

Refresh

Print

Overview

Work in progress

Aircraft status

Maintenance due

Documents & billing

Your aircraft

N350MQ **Airworthy**

Beechcraft King Air 350ER · SN FL-9901

2,158.9 — 0 0

hours landings open work due

orders soon

N351MQ **Airworthy**

Beechcraft King Air 350ER · SN FL-9902

1,876.2 — 4 0

hours landings open work due

orders soon

Work in progress

Work order 26-A0004 **Open** N351MQ

N351MQ ground test and functional check flights

0% complete · 0 of 4 task cards signed off · opened

Task cards (4)

Work order 26-M0009 **Open** N351MQ

N351MQ quality inspection — RII, conformity and final inspection

0% complete · 0 of 3 task cards signed off · opened

Task cards (3)

Work order 26-A0003 **In work** N351MQ

N351MQ avionics and mission-system installation — radar, EO/IR turret, consoles, SATCOM, mission power, ICS, cockpit control head

The customer portal for the sample customer.

7 Deliver: induction, redelivery and acceptance

Each aircraft on the program has an induction and a delivery. At **induction** the team records the arrival (who brought it, hours and cycles), works through the incoming inspection checklist with photos and findings, lists the loose equipment and records received, and the customer signs the condition as found.

At **delivery** the redelivery checklist is worked out by the system: all work orders closed, return to service signed, loose equipment and furnished items returned, changes settled, test flight flown. Records package and invoices are ticked by the team. Only the program manager can waive a line, with a reason, and the return to service can't be waived.

N350MQ Beechcraft King Air 350ER Ready for delivery PGM-2026-002

Induction

Delivery

Ready for delivery. Everything is done or waived. The customer can sign the acceptance below.

Redelivery checklist

Lines marked "from the program" are worked out from the work orders, return to service, returns and changes. Only the PM can waive a line, with a reason. The return to service can't be waived.

Item	Status	Detail	Photos
All work orders closed From the program	Done	5 closed	+ Photo
Return to service signed From the program	Done	signed 2026-10-08	+ Photo
Records package prepared Jonas Gyllensvaan · Oct 27, 2026, 1:43 PM	Done		+ Photo ☒ Done
Loose equipment returned From the program	Done		+ Photo
Furnished items returned From the program	Done		+ Photo
Open changes settled From the program	Done		+ Photo
Invoices raised Jonas Gyllensvaan · Oct 27, 2026, 1:43 PM	Done		+ Photo ☒ Done

N350MQ ready for delivery: every line done.

None. Radar, EOIR and SATCOM functional; data link to the ground station confirmed.

Recorded by Jonas Gyllensvaan · Oct 27, 2026, 1:43 PM

Loose equipment and records to return

Kind	Item	Qty	Condition	Stored at	Photos	Returned
Equipment	Engine inlet and exhaust covers	4	serviceable	Stores bin B-12		Jonas Gyllensvaan · Oct 27, 2026, 1:43 PM
Equipment	Pilot cover and control lock	2	serviceable	Stores bin B-12		Jonas Gyllensvaan · Oct 27, 2026, 1:43 PM
Record	Airframe, engine and propeller logbooks Scanned into MRO Tracker	6	serviceable	Records room		Jonas Gyllensvaan · Oct 27, 2026, 1:43 PM

Customer walk-around

What the customer saw and said

Walk-around with the customer: radome, turret fairing and antenna installs inspected; no findings.

Recorded by Jonas Gyllensvaan · Oct 27, 2026, 1:43 PM

Certificate of Acceptance

Accepted on
Oct 27, 2026 · Home base hangar

Hours / cycles at delivery
2158.9 h / 1822

Warranty from
Oct 27, 2026

For us: Jonas Gyllensvaan · Oct 27, 2026, 1:44 PM

For the customer: Morgan Hale, Director, Aviation Programme · Oct 27, 2026, 1:44 PM

Jonas Gyllensvaan

Morgan Hale

Open the certificate (PDF)

Make it again

Close

Test flight, walk-around and the Certificate of Acceptance signed by both sides. The certificate PDF is kept with the program's files, and the warranty starts on the acceptance date.

8 Fly the mission

The delivered aircraft moves straight into Operations: same tail number, same records, same hours. Dispatch sees the aircraft, the crews and the next 48 hours at a glance, with anything that needs attention flagged.

DISPATCH · NEXT 48 H (9)			Dispatch board
2:00 PM	N5287S · David Cho Part 91	READY	
3:00 PM	N350MQ · Alex Rowe Part 91 · KORF local	READY	
5:00 PM	N172AP · Ava Chen Part 91	READY	
Wed	N350MQ · Alex Rowe 7:00 AM · Part 91 · KORF – patrol box Alpha – KORF	READY	
Wed	N5287S · Ava Chen 8:00 AM · Part 91	READY	
Wed	N172AP · Student User 9:00 AM · Part 91	READY	
Thu	N350MQ · Alex Rowe 7:00 AM · Part 91 · KORF – patrol box Bravo – KORF	READY	
Thu	N5287S · Ava Chen 8:00 AM · Part 91	READY	
1 more on the schedule.			

FLEET BY STATUS (4)			All aircraft
N350MQ	Beechcraft King Air 350ER 1 squawk · next 3:00 PM	BOOKED TODAY	
N172AP	Cessna 172S next 5:00 PM	BOOKED TODAY	
N5287S	Cessna 172S Skyhawk next Wed 8:00 AM	BOOKED TODAY	
N351MQ	Beechcraft King Air 350ER	AVAILABLE	

Operations overview: dispatch for the next 48 hours, including N350MQ's crew familiarization flight and the first patrol sorties, and the fleet by status.

Reservation — Reserved

Reservation

Discrepancies

Pilot in command

Alex Rowe

Aircraft

N350MQ - Beechcraft King Air 350ER

Operating rule

Part 91

Part 91: no release required.

Create Release

Second pilot / instructor

No instructor

Crew check blocks this flight

Alex Rowe (PIC): no medical on file

Alex Rowe (PIC): Crew Resource Management (CRM) not completed

Alex Rowe (PIC): Emergency Equipment & Evacuation Drills not completed

Alex Rowe (PIC): Hazardous Materials Awareness not completed

Alex Rowe (PIC): King Air 350 Proficiency Check not completed

Alex Rowe (PIC): King Air 350 Recurrent Ground not completed

Alex Rowe (PIC): Safety Management System (SMS) not completed

Alex Rowe - Company limits: duty 7.5 h

Flight recorder

Dispatch

Close

Save

A patrol sortie booking. The crew check blocks dispatch until the pilot's medical and the company's required training (CRM, emergency drills, King Air 350 proficiency check and recurrent ground) are on file.

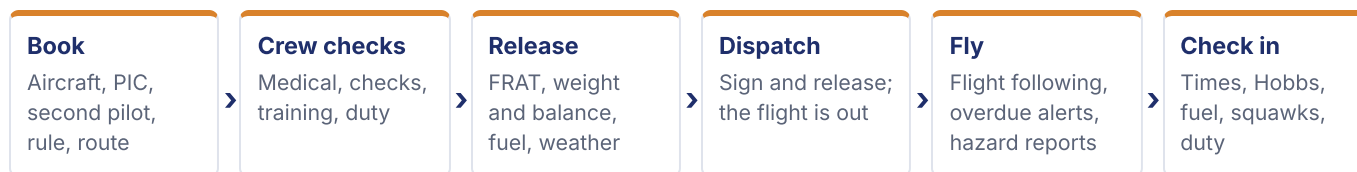
Each flight is booked against the aircraft with its pilot in command, second pilot, operating rule and route, then released, dispatched and checked in with block times, Hobbs, landings, fuel and squawks.

MRO Tracker checks the crew against the company's dispatch rules before the flight goes: medical, training and checks, rest and duty limits. Each rule can block the flight or only warn, and a dispatcher can override a block with a reason, which is recorded.

Pilots see their own flights in My Flights, and the flights they fly come into their logbook for them to confirm.

9 The pilot's day: from booking to check-in

Pilots and dispatch work the same flight record from start to finish. Each step checks the one before it, so an aircraft or a crew that isn't ready can't be dispatched by accident.



Step	What MRO Tracker does
Plan the crew	Roster, time off and swaps, rest and duty looked at 7 to 30 days ahead, and pilots needed against pilots available by aircraft type
Crew checks	At booking, dispatch and release: medical, checks, required training, an active crew profile, and flight and duty limits (135.267, 135.265, 91.1059 or company limits). Each rule blocks or warns; an override needs a reason, which is recorded
Release	A checklist of everything still blocking; a FRAT scored by the database, with FRAT approval above the limit; a load manifest the database won't finalize when overweight or out of CG; a live route brief; amendments after release
In the air	Flight following, overdue alerts every 5 minutes with the last known position, flight tracking, flight recording, and hazard reports that can be filed confidentially
Check-in	Times, Hobbs and tach, fuel, duty, squawks and remarks: aircraft hours move forward, squawks go to maintenance (a grounding one blocks the next dispatch), duty is logged and the flight waits in the pilot's logbook
Training and safety	Crew qualification files and the Training module feed the crew checks; hazard reports feed the Part 5 SMS

The full story. The companion brief *Life of a flight operation* follows a day in a flight department screen by screen: crew planning, booking, dispatch rules, the release with its FRAT and load manifest, flight following, check-in, crew records and training, and the safety system.

10 Keep it flying

When a pilot or operator finds a problem, it is reported against the aircraft in seconds, with a box to tick if it grounds the aircraft (which then blocks dispatch and releases until it's cleared). Maintenance Control is alerted, and one click turns the squawk into a task card on a new or open work order. Approving the card closes the squawk.

The screenshot shows a web interface for reporting a discrepancy on aircraft S/N FL-9901 - N350MQ. At the top, there's a header with the aircraft ID and a 'SET STATUS' dropdown. Below this, a 'Discrepancies' section shows 'None open' and a '+ Report discrepancy' button. The main form area contains a text input with the description: 'Operator console 2 display flickers while SATCOM transmits. Found at the customer walk-around; console usable. Warranty item.' Below the text input are fields for 'Date' (10/27/2026), 'Reported by' (Alex Rowe), 'Hobbs / hours' (2158.9), and 'Category (optional)' (Mission systems). There is a checkbox for 'Grounds the aircraft' which is currently unchecked. At the bottom, there are 'Cancel' and 'Save discrepancy' buttons. A small note at the very bottom states: 'Goes into the Discrepancy Log for this aircraft; Maintenance Control is alerted. Corrective action and sign-off are done from the Discrepancy Log or a task card.'

Reporting a squawk found at the customer walk-around.

The screenshot shows a 'Make a task card' form. At the top, it says 'N350MQ · Beechcraft King Air 350ER. Approving the card closes this squawk.' Below this is a 'Card description' field containing the text: 'Operator console 2 display flickers while SATCOM transmits'. Underneath is a 'Discrepancy / work required' section with the same text as the card description. Below that is a 'Work order' section with a dropdown menu showing '+ New work order for this aircraft'. A note below the dropdown says: 'No open work orders for N350MQ, so this makes a new one.' Below the note is a 'Department for the new work order' dropdown menu showing 'M · Airframe'. At the bottom right, there are 'Cancel' and 'Create task card' buttons.

From the squawk to a task card for the avionics shop.

From here the aircraft is in the same loop as every other aircraft in the fleet: discrepancies and MEL deferrals, inspections and maintenance coming due, ADs and service bulletins, work orders and records, and the flights that use up its hours and cycles.

Who uses what

Role	Where they work in MRO Tracker
Business development	Leads, opportunities, activities, business cases, SIOP reviews, contracts and e-signature
Planner	AI work order plan, work orders and task cards, kitting and parts
Program manager	Program overview, line items, deliverables, risks, changes, furnished items, schedule, resources, scenarios, earned value
Mechanics and inspectors	Task cards: clock in, parts, sign-off, RII, Ask engineering
Engineers	Engineering requests, repairs and alterations, engineering orders, damage map, library, reliability
Hangar and stores	Hangar board and floor plan, equipment, kitting queue, purchasing, tools, AOG desk
Quality	Induction and redelivery checklists, conformity, return to service
Customer	Signing links, induction and acceptance signatures, read-only portal
Dispatch and pilots	Schedule, releases, FRAT, weight and balance, crew checks, flight following, My Flights, check-in, hazard reports, logbook, squawks
Chief pilot and training	Crew records, training courses and records, crew planning and duty, FRAT approvals
Safety officer	Hazard reports, SMS risk register, investigations, safety policy and emergency response plan

11 Mechanics and engineers, in one conversation

When a mechanic finds something the manual doesn't cover, they press **Ask engineering** on the task card or work order. The request opens already filled in with the aircraft, the card and the ATA chapter. The mechanic picks what they need (a repair disposition, a damage assessment, a technical question, an alternate part or a deferral) and how urgent it is: AOG gets an answer within 4 hours, urgent within a day, routine within 5 days.

The screenshot shows the 'Engineering Home' dashboard. At the top, there are navigation tabs: Engineering Home, Requests, Repairs & alterations, Engineering orders, Damage map, Library, Configuration, and Inspection program. Below these are more specific tabs: Interchangeability, AD / SB, Reliability, Workload, Engineering hours, and Settings. The dashboard features six summary cards: 4 Open requests (1 AOG - 2 late), 2 Answered, to close (Close once the work is done), 2 Repairs & alterations (1 337 to send to the FSDO), 1 Orders to check (Waiting for review), 0 ADs to review (All reviewed), and 3 Documents to read (1 program change to decide). Below the cards are buttons for '+ Engineering request', '+ Repair / alteration', 'Damage map', 'Library', 'Inspection program', 'Interchangeability', and 'Reliability'. A section titled 'REQUESTS NEEDING ATTENTION (4 OF 4)' lists three requests: ER-0001 N5287S (Nose gear shimmy damper leaking, AOG, 3 days late), ER-0002 N172AP (Pod mount doubler: edge distance short at hole 3, URGENT, 3 days late), and ER-0003 N172AP (Alternate nutplate for the fairing attach points, ROUTINE, 18 h).

Engineering Home: open requests with AOG and late ones first, answers to close, repairs and alterations, orders to check, ADs to review and documents to read.

This screenshot shows the details for request ER-0002 N172AP. The title is 'Pod mount doubler: edge distance short at hole 3' with status 'Urgent' and 'In review'. The description is 'Damage assessment - N172AP - ATA 53-10 Fuselage - Belly, FS 108'. The question is 'Drilled hole 3 on the forward pod mount doubler measures 1.6D edge distance; drawing SP-172-110 calls for 2D minimum. Doubler is 0.063 2024-T3. Can we use as is, or move the hole / make a new doubler?'. The answer section shows a disposition of '—' and a discipline of 'From ATA 53'. The answer text is 'The disposition and instructions for the mechanic'. Approved data includes 'SRM 57-10-01 fig. 201; AC 43.13-1B ch. 4; DER letter 2026-118'. There is a 'Send the answer' button. At the bottom, it says 'Conditions back to the floor' and 'None. Add re-inspections, time limits or actions the floor has to do because of this answer.' There is also a '+ Add a condition' button.

A damage assessment from the floor: the mechanic's question, then the engineer's disposition, the answer and the approved data it rests on.

This screenshot shows the details for request ER-0004 N172AP. The title is 'Hail dent, left wing leading edge' with status 'Use as is'. The description is 'Within negligible damage limits for the leading edge skin. Use as is: record the dent location and size in the airframe logbook and add a re-inspection of the area at the next 100-hour inspection. If it grows or cracks appear, raise a new request.' The answer section shows a disposition of '—' and a discipline of 'From ATA 53'. The answer text is 'The disposition and instructions for the mechanic'. Approved data includes 'SRM 57-10-01 fig. 201; AC 43.13-1B ch. 4; DER letter 2026-118'. There is a 'Send the answer' button. At the bottom, it says 'Conditions back to the floor' and 'None. Add re-inspections, time limits or actions the floor has to do because of this answer.' There is also a '+ Add a condition' button.

The same request further down: similar answered requests to reuse, engineering hours, photos and the conversation between the engineer and the mechanic.

- **Routed to the right engineer.** Requests go to an engineering group by kind, ATA chapter, aircraft, customer or program. AOG requests also reach the group's on-call engineer, and requests that sit unowned or late go up to the group lead, then the engineering managers.
- **A conversation on every request.** The engineer asks for a photo or a measurement and the mechanic answers on the request, with photos and files attached. Each side is told straight away by email, text, Microsoft Teams or WhatsApp, whichever they chose.
- **Answers with approved data.** Every answer carries a disposition (approved repair, use as is, replace, refer to the manufacturer, not approved) and the data behind it, such as the SRM figure, AC 43.13 paragraph or

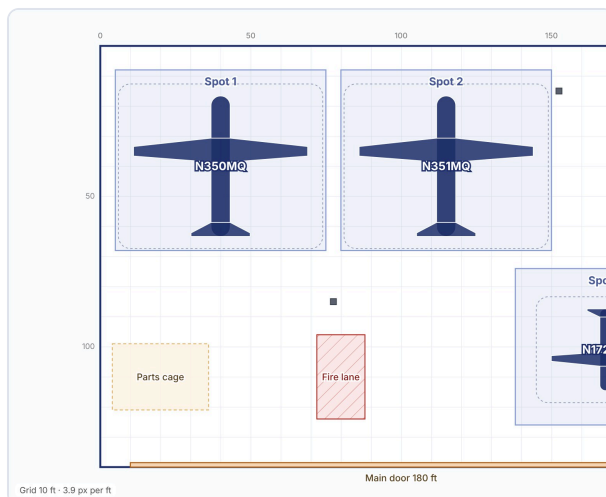
DER letter. Similar answered requests are shown for reuse, and the engineer still reviews and sends the answer.

- **Within each engineer's authority.** Each engineer's limits are set by kind, discipline, aircraft type and basis (company, FAA DER, EASA DOA). Answers that need it go to a second engineer for an independent check before the mechanic sees them.
- **Conditions back to the floor.** A repeat inspection, a time-limited repair or "before next flight" becomes a Maintenance Due item, a task card work item or a grounding squawk, so it can't be forgotten.
- **Customer approval when it's needed.** Dispositions on customer aircraft can require the customer's e-signature. The task card shows a blocking banner until they sign.

Engineering also keeps repairs and alterations with their instructions for continued airworthiness and the Form 337 worksheet, engineering orders and work instructions (steps, cautions and warnings, reviewed and approved before they're published), a damage map on each aircraft's top view, the technical library with read-and-acknowledge revisions, fleet configuration, inspection program changes, approved alternate parts, and reliability: defects per 100 flight hours by ATA chapter, repeat defects and component removals. Engineering hours can be timed and billed as labour on the work order.

12 Run the hangar floor

The same records drive the rest of Operations, so the hangar, the parts room and the AOG desk all see the same aircraft and work orders the program does.



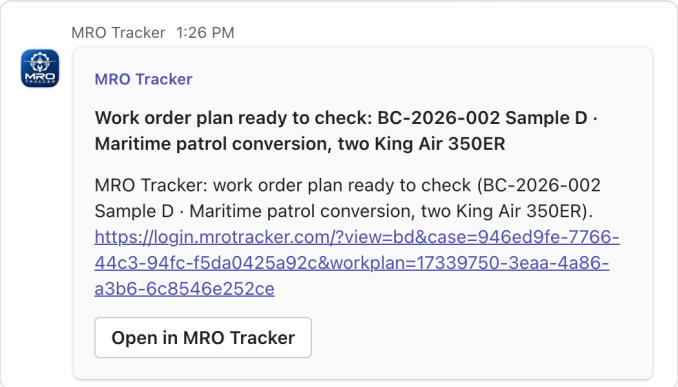
Hangar layout: a to-scale floor plan with spots, the door, columns, a parts cage and a fire lane, and each booked aircraft drawn from its wingspan and length with its clearance (sample hangar).

Area	What it does
Hangar planning	A board with a row per bay and a bar per booking, a to-scale floor plan of each hangar, and fit checks against bay and door size and clearance. Booking warns when an aircraft won't fit beside the others there. Also covers people, shifts and qualifications, equipment bookings for an aircraft, work order and person, a 90-day forecast of maintenance due against hangar capacity, storage, and door codes and keys.
Stores and kitting	A parts catalog with stock by serial, batch, location and condition, receiving with the release certificate, requests, quotes, purchase orders and vendor bills. Planners and parts staff work from a kitting queue (AOG first), with pick lists sorted by bin and parts reserved, issued and staged for each task card. Returns and stock counts are included.
Tools	The tool inventory with calibration due and overdue, history and barcodes. Tools past their calibration can't be booked, and a task card's close-out lists any tools still out.
Maintenance Due and ADs	Inspections and limits by hours, cycles and date, whichever comes first, counted from check-ins. Overdue items can block dispatch. AD and service bulletin tracking, and a one-click inspection package for the mechanic: due items, ADs, open squawks and MEL deferrals as a PDF with sign-off columns.
AOG desk	Declaring an aircraft on ground opens a grounding item that blocks dispatch. The desk tracks status, ETR, the parts being sourced (vendor, PO, tracking, 8130-3) and the bookings affected, and alerts the AOG list. An AOG can't be closed until the return to service is signed.
Electronic logbook	14 CFR 43.9, 43.11 and 91.417 entries, signed with the signer's PIN. Each entry is numbered and sealed, and linked to the entry before it, so a change shows.
Quality	The audit program with checklists and evidence, findings from audits, the FAA, customers and suppliers with root cause and corrective actions, effectiveness checks, and documents to read and sign.

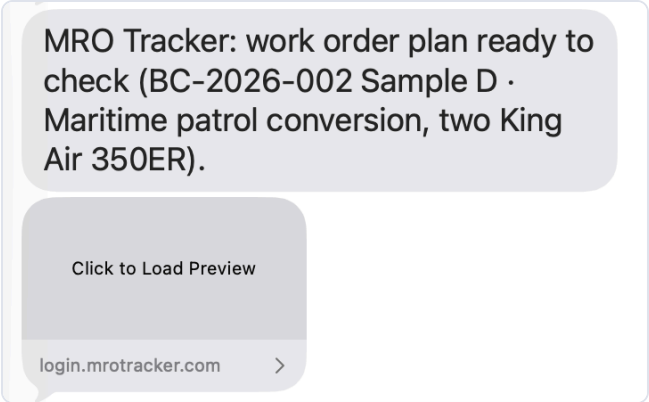
13 Everyone hears about it

People don't have to go looking for what changed. MRO Tracker tells the people involved by email, text message, Microsoft Teams and WhatsApp, each with a link straight to the record. Each person chooses how they want to hear about things.

The AI work order plan is ready to check



In Microsoft Teams, with an Open in MRO Tracker button.



As a text message.

A new squawk on N350MQ

New squawk: N350MQ

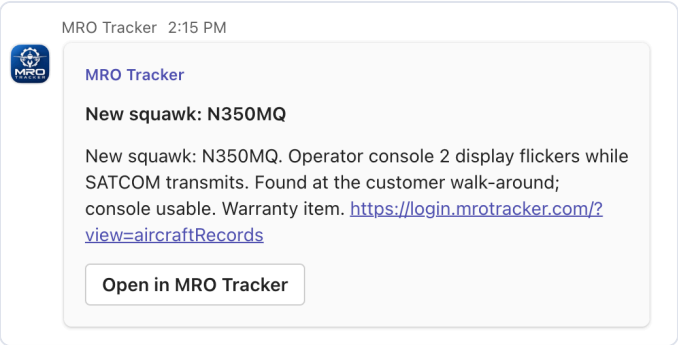
Operator console 2 display flickers while SATCOM transmits. Found at the customer walk-around; console usable. Warranty item.

Aircraft	N350MQ (Beechcraft King Air 350ER)
Reported by	Alex Rowe
Date	2026-10-27
From	Aircraft page

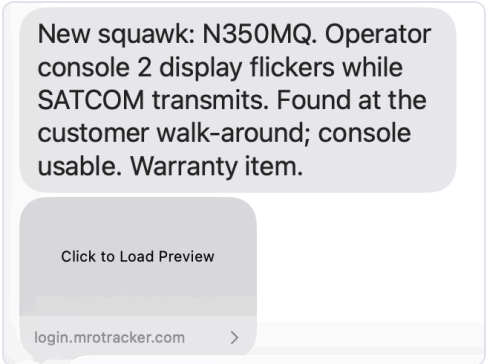
Open the discrepancy log

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Maintenance Control's email: what's wrong, the aircraft, who reported it and when, and a button to the discrepancy log.



The same squawk in Teams.



And by text.

The sample shown uses fictional names, aircraft and figures. MRO Tracker 2.2 · mrotracker.com · 703.415.4545

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