

Tom Drew

Platform & DevOps Engineer | Automation Platforms, IaC, Broadcast-Critical & Regulated Environments | SC Cleared

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PROFILE

Platform engineer with a decade of experience building infrastructure for services where downtime is visible, an instinct that traces back to my time as an RAF IT technician on airborne systems. I automate relentlessly, treat operational excellence as the baseline rather than the goal, and care most about the platforms that let other engineers move quickly without carrying the underlying complexity themselves.

Most recently I designed and built the internal automation platform behind a 24/7/365 broadcast graphics service, taking the team from ad hoc manual builds to a GitOps pipeline with quality gates and a weekly release cadence. I am AWS and Azure certified, with hands-on Kubernetes and Terraform depth built through substantial personal platform projects, and I am now looking for a platform team where that becomes the core of the work.

CORE SKILLS

Commercial experience

- **Automation & configuration management:** Ansible, Podman, RHEL, Ubuntu, Bash, Python
- **CI/CD & GitOps:** GitHub Actions, Jenkins, Azure Pipelines, Azure DevOps, OIDC federation, pre-commit, trunk-based development, environment-gated deployments
- **Cloud:** Azure (AZ-104, AZ-305), Azure Logic Apps; AWS solution design and proof-of-concept work
- **Observability & reliability:** Uptrends, SLA monitoring, disaster recovery design, MTTR reduction
- **Practice & governance:** technical SME and PR review, mentoring, C4 modelling, TOGAF, SC cleared

Personal projects and lab

- Kubernetes (kubeadm, Calico, K3s), Helm, ArgoCD, Terraform, Prometheus, Grafana, AWS (Lambda, S3, CloudFront, API Gateway, DynamoDB, Cognito), Azure Functions, Cosmos DB, Managed Identity, Bicep, TypeScript

SELECTED PROJECTS (PERSONAL)

Home Lab Kubernetes Cluster | kubeadm, Calico, Tailscale

- Built and operate a Kubernetes cluster bootstrapped from scratch with kubeadm (v1.32, Calico CNI) rather than a packaged distribution, chosen deliberately for direct exposure to control plane components, cluster bootstrapping and upgrades
- Reach it remotely over Tailscale and use it as the working environment for CKA preparation
- Previously ran a K3s cluster managed via GitOps with ArgoCD, with a Prometheus and Grafana stack deployed by Helm

Personal Portfolio Site | AWS, Azure, Terraform, GitHub Actions | tomdrew.online

- Static site served via CloudFront and S3, with the full stack defined in Terraform
- GitHub Actions CI/CD deploying to AWS using OIDC federation, removing the need for long-lived cloud credentials
- Provisioned the backup in Azure rather than a second region of the same provider, so the fallback fails independently of the thing it is backing up

Weather Outfit Advisor | Azure, Terraform, GitHub Actions, TypeScript | github.com/ThomasDrew15/weather2wear

- Rebuild of an earlier dissertation project, built infrastructure-first: scope, architecture, data model, API contracts and threat model settled as their own milestone before any code, then delivered in layers, each shipped and verified against real Azure before the next began
- Split Terraform into modules per layer with separate dev and live directories, so compute can be torn down for cost without touching data or permissions. GitHub Actions authenticates via OIDC credentials scoped to a single repository and branch, so no long-lived cloud credential exists in CI
- The running system holds no application secrets: key authentication is disabled on Cosmos DB, the Function's runtime storage and Azure OpenAI, and the app reaches all three through a user-assigned Managed Identity

EXPERIENCE

Senior DevOps Engineer (Contract) | Met Office

February 2025 – Present *Initial 6-month engagement extended by a further 36 months*

- **Platform engineering:** Designed and delivered the Ansible automation platform for an international broadcast graphics service, covering roughly 30 predominantly bare-metal hosts across workstations, render servers and data servers. Built it on a containerised execution environment (Podman on RHEL) with a two-repo GitOps architecture separating platform orchestration from service content, now running around 15 roles and growing. Cut build times from 8 hours to 10 minutes and moved release cadence from ad hoc, typically monthly or less, to weekly.
- **Scale and reach:** The platform underpins 4 to 5 internal broadcast channels, with graphics content consumed by upwards of 30 downstream users and organisations. It is used directly by a team of 10 engineers.
- **Developer experience:** Provisioned a self-hosted GitHub Actions runner using Podman quadlets, spinning up ephemeral containers per workflow so engineers run infrastructure automation from CI rather than from their own machines. Established pre-commit linting, code quality and style gates, secret scanning, trunk-based development, and environment-gated test, pre-production and production deployments.

- **Reliability & recovery:** Authored disaster recovery playbooks for broadcast-critical services, replacing partial and outdated documentation with codified shutdown and post-boot verification, reducing MTTR and de-risking operational handover.
- **Strategic OS migration:** Led the Linux OS migration from RHEL to Ubuntu across roughly 20 bare-metal workstations, 8 bare-metal render servers and 5 data server VMs, coordinating a third-party vendor and internal stakeholders. Paired the new automation with optimised bulk data transfer, cutting 1TB from 6 hours to under 2 and enabling workstations to be rebuilt, tested and returned to users within a day.
- **Cloud direction:** Led the design and proof-of-concept work behind the team's AWS adoption case, shaping the decision-making stages for future migration.
- **Enablement & leadership:** Technical SME reviewing all automation pull requests, typically 25 a month. Mentor four engineers, running their one-to-ones and objective setting. Established and led a weekly AWS Training Syndicate for 5 to 10 engineers, delivered a directorate-level presentation on AI as an engineering force multiplier, and won the AWS Summit London gameday.
- **Key technologies:** Ansible, Podman, RHEL, Ubuntu, GitHub Actions, GitOps, Git, Bash, Python, AWS (design and PoC)

Support Engineer, Data Hub and NUAR | Ordnance Survey

July 2024 – February 2025 *(permanent; left to return to the Met Office on contract)*

- **Framework architecture:** Designed and implemented a greenfield support framework for the National Underground Asset Register, then in private beta with around 100 participating organisations and asset owners, turning a complex project handover into a sustainable, repeatable internal process.
- **Cost optimisation:** Built an automated Azure Logic App solution that enforced infrastructure state and shut down non-production compute outside its window, removing a recurring spend on some of the estate's more expensive VM classes and improving consistency between environments.
- **Observability & SLAs:** Engineered a suite of static and transactional monitoring tools in Uptrends covering 30 or more services and user journeys across both Data Hub and NUAR, improving uptime and transparency against contractual SLAs.
- **Key technologies:** Azure, Azure Logic Apps, Uptrends, Azure DevOps

Azure DevOps Engineer | WPA

January 2024 – June 2024 *(permanent; role diverged significantly from the advertised DevOps remit)*

- **Release process documentation:** Worked with the existing offshore delivery team to document a 20-year-old release process that had never been written down and existed only as tribal knowledge, removing a single point of organisational risk.
- **Security & RBAC:** Conducted a full security audit of the Azure DevOps environments and implemented a role-based access control model covering several hundred users across the organisation, including offshore contractors, hardening the deployment posture.
- **Key technologies:** Azure DevOps, Azure, RBAC

Senior DevOps Engineer | Met Office

February 2020 – January 2024

- **CI/CD platform:** Designed and implemented a VM-based Jenkins CI/CD framework for my team, replacing legacy systems with under 10 maintained pipelines, and mentored engineers on automation practice.
- **Disaster recovery leadership:** Ran a disaster recovery workshop series covering my team's services and the three dependent teams we relied on to recover them, overhauling our recovery protocols, reducing MTTR and mitigating reputational risk for national services.
- **SecOps:** Orchestrated the response to formal penetration testing, closing every high and critical finding raised and introducing enterprise-grade credential management to remove remote-access vulnerabilities. Remaining items were informational or low severity.
- **Line management:** Line managed a junior engineer, owning their objectives and development alongside my own delivery work.
- **Recognition:** Nominated for the Met Office Awards for Excellence (October 2023), cited for leading projects autonomously, mentoring and line managing new joiners, and improving how the team worked together.
- **Key technologies:** Jenkins, Ansible, Linux, Bash, Python, Git

IT Technician | Royal Air Force

May 2014 – November 2019

- Managed mission-critical IT systems supporting a fleet of 10 to 15 aircraft, their aircrew and a large supporting ground organisation, where availability was paramount. This built the operational discipline that still shapes how I approach reliability.
- Delivered briefs to senior station executives, translating complex technical detail for non-technical audiences.
- Cisco Academy trained, with foundational expertise in Linux, IT security and network management.

EDUCATION & CERTIFICATIONS

- **BSc Computing and IT (2:1)**, The Open University, 2018 – 2025. Studied part-time alongside full-time employment. Distinction in Software Engineering; modules in Algorithms and Data Structures and Systems Penetration Testing.
- **AWS Certified Solutions Architect – Associate**, January 2026
- **Microsoft Certified: Azure Solutions Architect Expert (AZ-305)**, February 2026
- **Microsoft Certified: Azure Administrator Associate (AZ-104)**, November 2025
- **Certified Kubernetes Administrator and HashiCorp Terraform Associate**, studying towards, targeting 2027
- **SC cleared**
- **Additional:** RYA Competent Crew, Hill and Moorland Leader, Duke of Edinburgh Gold