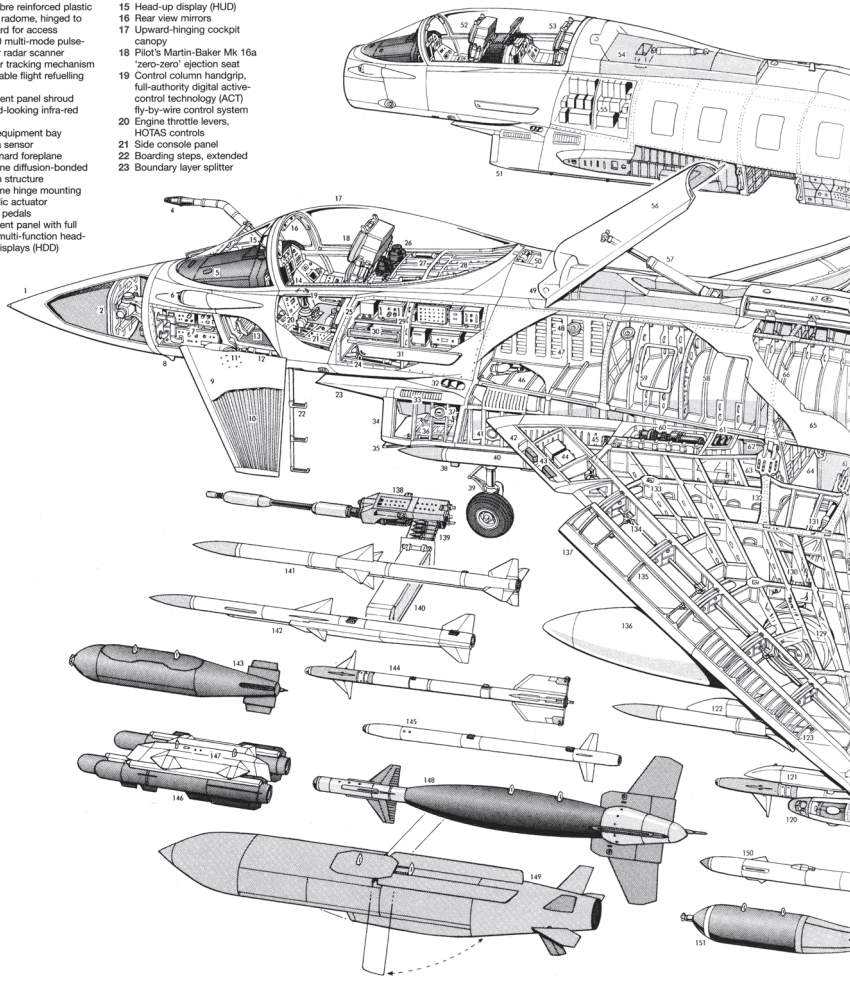
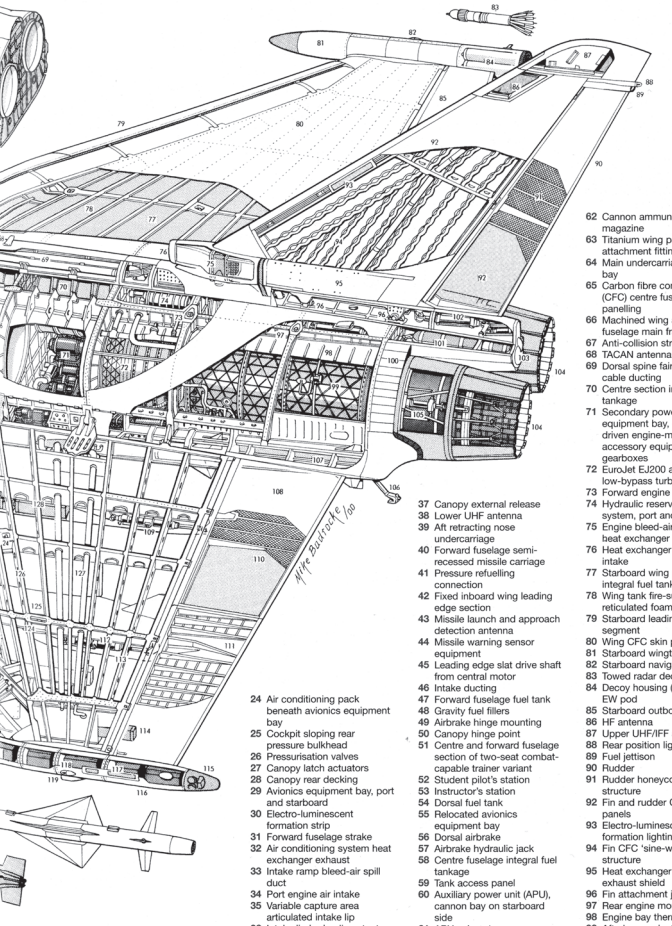
EUROFIGHTER TYPHOON CUTAWAY.

(Mike Badrocke)

1 Glass fibre reinforced plastic (GFRP) radome, hinged to starboard for access
2 ECR-90 multi-mode pulse-doppler radar scanner
3 Scanner tracking mechanism
4 Retractable flight refuelling probe
5 Instrument panel shroud
6 Forward-looking infra-red seeker
7 Radar equipment bay
8 Air data sensor
9 Port canard foreplane
10 Foreplane diffusion-bonded titanium structure
11 Foreplane hinge mounting
12 Hydraulic actuator
13 Rudder pedals
14 Instrument panel with full colour multi-function head-down displays (HDD)
15 Head-up display (HUD)
16 Rear view mirrors
17 Upward-hinging cockpit canopy
18 Pilot's Martin-Baker Mk 16a 'zero-zero' ejection seat
19 Control column handgrip, full-authority digital active-control technology (ACT) fly-by-wire control system
20 Engine throttle levers, HOTAS controls
21 Side console panel
22 Boarding steps, extended
23 Boundary layer splitter





24 Air conditioning pack beneath avionics equipment bay
25 Cockpit sloping rear pressure bulkhead
26 Pressurisation valves
27 Canopy latch actuators
28 Canopy rear decking
29 Avionics equipment bay, port and starboard
30 Electro-luminescent formation strip
31 Forward fuselage strake
32 Air conditioning system heat exchanger exhaust
33 Intake ramp bleed-air spill duct
34 Port engine air intake
35 Variable capture area articulated intake lip
36 Intake lip hydraulic actuators
37 Canopy external release
38 Lower UHF antenna
39 Aft retracting nose undercarriage
40 Forward fuselage semi-recessed missile carriage
41 Pressure refuelling connection
42 Fixed inboard wing leading edge section
43 Missile launch and approach detection antenna
44 Missile warning sensor equipment
45 Leading edge slat drive shaft from central motor
46 Intake ducting
47 Forward fuselage fuel tank
48 Gravity fuel fillers
49 Airbrake hinge mounting
50 Canopy hinge point
51 Centre and forward fuselage section of two-seat combat-capable trainer variant
52 Student pilot's station
53 Instructor's station
54 Dorsal fuel tank
55 Relocated avionics equipment bay
56 Dorsal airbrake
57 Airbrake hydraulic jack
58 Centre fuselage integral fuel tankage
59 Tank access panel
60 Auxiliary power unit (APU), cannon bay on starboard side
61 APU exhaust
62 Cannon ammunition magazine
63 Titanium wing panel attachment fittings
64 Main undercarriage wheel bay
65 Carbon fibre composite (CFC) centre fuselage skin panelling
66 Machined wing attachment fuselage main frames
67 Anti-collision strobe light
68 TACAN antenna
69 Dorsal spine fairing air and cable ducting
70 Centre section integral fuel tankage
71 Secondary power system equipment bay, engine-driven engine-mounted accessory equipment gearboxes
72 EuroJet EJ200 afterburning low-bypass turbofan engine
73 Forward engine mounting
74 Hydraulic reservoir, dual system, port and starboard
75 Engine bleed-air primary heat exchanger
76 Heat exchanger ram-air intake
77 Starboard wing panel integral fuel tankage
78 Wing tank fire-suppressant reticulated foam filling
79 Starboard leading edge slat segment
80 Wing CFC skin panel
81 Starboard wingtip EW pod
82 Starboard navigation light
83 Towed radar decoy (TRD)
84 Decoy housing (2) in rear of EW pod
85 Starboard outboard elevon
86 HF antenna
87 Upper UHF/IFF antenna
88 Rear position light
89 Fuel jettison
90 Rudder
91 Rudder honeycomb core structure
92 Fin and rudder CFC skin panels
93 Electro-luminescent formation lighting strip
94 Fin CFC 'sine-wane' spar structure
95 Heat exchanger titanium exhaust shield
96 Fin attachment joints
97 Rear engine mounting
98 Engine bay thermal lining
99 Afterburner ducting
100 Tailpipe sealing plates
101 Brake parachute housing
102 Rudder hydraulic actuator
103 Parachute hinged door
104 Variable area afterburner nozzle
105 Nozzle actuator
106 Runway emergency arrestor hook
107 Aft fuselage semi-recessed missile carriage
108 Port elevon all-CFC structure
109 Inboard elevon hydraulic actuator
110 Elevon honeycomb core structure
111 Outboard elevon all-titanium structure
112 Outboard elevon hydraulic actuator
113 Actuator ventral fairings
114 Outboard pylon countermeasures dispenser
115 Aft ECM/ESM antennae
116 Wing tip electronic-countermeasures/electronic surveillance (ECM/ESM) pod
117 Formation lighting strip
118 Port navigation light
119 Equipment cooling ram-air intake
120 Forward ECM/ESM antennae
121 Outboard missile pylon
122 Port wing leading-edge two-segment slat
123 Intermediate stores pylon
124 Pylon mounting hardpoints
125 Port wing integral fuel tankage
126 Wing panel multi-panel structure
127 Cable conduits
128 Elevon hinge fairing-mounted countermeasures dispensers
129 Port main wheel
130 Mainwheel shock-absorber leg strut
131 Hydraulic retraction jack
132 Undercarriage leg mounting stub spars
133 Wing root pylon-mounting hardpoint
134 Leading edge slat operating screw jacks and torque shaft
135 Slat guide rails
136 330 Imp gal (1,500-litre) external fuel tank
137 Wing leading edge slat extended position
138 Mauser BK27, 27mm cannon
139 Ammunition feed chute
140 Ammunition magazine, 150 rounds
141 AIM-120 AMRAAM, advanced medium-range air-to-air missile
142 Meteor FMRAAM, future advanced medium-range air-to-air missile
143 BL-755 cluster bomb
144 AIM-9L Sidewinder, short-range air-to-air missile
145 IRIS-T, close-range air-to-air missile
146 Brimstone air-to-surface anti-armour missiles
147 Three-round missile carrier/launcher
148 GBU-24/B Paveway III, 2,000lb laser-guided bomb
149 MBDA Storm Shadow, stand-off precision-guided attack weapon
150 MBDA ALARM, air-launched anti-radiation missile
151 454kg (1,000lb) HE bomb, No 117 retarded version


ISIS-controlled areas in August 2014
ISIS-controlled area expansion in January 2015
January 2015 – 10 million people lived under the Islamic State regime, which covered 38,000 square miles of territory
Flags represent members of the coalition
N
0 100 200 km
0 50 100 miles
TURKEY
Incirlik Air Base
Aleppo
Raqqa
NORTH CYPRUS
Khmeimim Air Base
SOUTH CYPRUS
Dhekelia
SYRIA
RAF Akrotiri
Shayrat Air Base
LEBANON
Beirut
Damascus
JORDAN
Tel Aviv
Amman
Prince Hassan Air Base
ISRAEL
Al Azraq Air Base
Squadron's region of operations


Tal Afar
Mosul
Erbil
I R A N
Tigris River
Euphrates River
Al Omar Oilfield
I R A Q
Hit
Fallujah
Ramadi
Baghdad
Al Udeid Air Base
Qatar
Jabar Al Ahmad Air Base
Kuwait
Al Dhafra Air Base
UAE
Al Minhad Air Base
UAE

Prologue

The soldier's voice burst onto the radio.

'Dragon. Are you visual with three ISIS fighters running to the east?'

'Affirm.'

'Roger. They have been engaging friendlies and are now repositioning to attack the flank. They pose an imminent threat. We need a strike on these targets immediately. How long will it take you to set up?'

The American accent requesting air support was doing his best to disguise the urgency in his voice.

'Copy. About sixty seconds.'

It needed the lightest touch on the controls to ease the Typhoon into a left turn, staying high over the advancing ISIS fighters. I trained the targeting camera into the middle of the fight and looked down through the canopy.

Below, a huge battle was raging on the outskirts of Ramadi, to the west of the capital, Baghdad. Coalition troops were bogged down by enemy fighters who fired automatic weapons as they dodged in and out of trenches carved deep into the ancient bedrock. Soldiers were running in all directions. All around them were puffs of dust kicked up by rounds as they smashed into the ground. Smoke from an RPG spiralled over the trench line and slammed into a compound wall.

We had to keep emotions under control and work out who was who.

I could see on the Litening pod camera three ISIS fighters race across a field, protected from the Iraqi forces' sight line by an extended patch of scrub. They separated. Two ran to the north and set up a new firing position. The third continued along an irrigation channel, stooped with rifle in hand, then threw himself down against a bank of earth and opened fire once more against the coalition troops.

We needed to split the Typhoon formation and strike both groups. I glanced across at my wingman Cal, Nick Callinswood. He was about a mile away and slightly high, his jet appearing like a grey dart against the chalky blue sky. The Typhoon looked ready, menacing. Cal had flown close air support missions on Tornados in Afghanistan. I was glad of his experience.

'Dragon 2, are you visual with the individual who just broke from the three?'

'Affirm,' Cal answered.

'Your target. We'll prosecute simultaneously. Deconflict laser codes. We'll strike on a heading of 060 degrees, from battle formation.'

'Dragon 2. Copy.'

We could not release a GPS weapon against mobile targets. If they moved at the last moment, the weapon would likely miss and hit the programmed coordinate. By using the laser spot and slewing the camera to put the target in the cross hairs, the weapon entered a home-on-laser attack that would be more accurate.

'Dragon cleared to engage.' The soldier's voice was

rushed, pressing. He was a specialist, our eyes on the ground trained in coordinating air support. A joint terminal attack controller (JTAC).

I settled the targeting camera, fired the laser and pressed down hard with my thumb on the red weapon release button on the stick. I felt a small thud through the airframe as a Paveway 4 laser-guided bomb was unleashed into the airflow.

'One away, thirty seconds,' I called on the radio.

I stared back into the cockpit and made constant minute adjustments to the targeting system. I could hear my breath racing through the oxygen mask. I heard Cal release too, moments later.

The earth erupted. The three fighters were killed outright and instantly. I felt nothing. No elation. A numbness.

There was no time to dwell. In a fast jet, there's never enough time.

'Troops in contact,' the radio screamed once more.

Cal was immediately retasked onto another group of ISIS fighters engaging the Iraqi troops. He carried out another direct hit. It was relentless.

We had struck multiple targets across the region. An anti-aircraft gun, an ammunition storage building, a sniper and now direct support to troops badly outnumbered. It had been such an intense fight we were running out of weapons. Beneath us, the fighting raged on.

The attack controller was straight back on the line.

'Dragon. Confirm you have the 27 mm today?'

'Affirm. We have 27 mm.'

'Roger that,' he replied. 'I've got a gun target for you. Standby for the talk-on.'

Holy shit.

A gun target. Three enemy fighters hidden in a scrappy bush pinning down friendly troops.

This was something I had trained to use for years in the Jaguar and Typhoon but had never been required to fire it in anger. Strafing was risky. We were almost clean out of bombs and such was the severity of the situation on the ground, they wanted to resort to fast jet cannon fire. It would be the first operational use of the Typhoon's gun.

My throat had become dry and I could feel the sweat streaming down my neck. To fire the gun, I would need to get really low, right on top of the fighters involved in this contact. My heart quickened. I could feel the pistol resting against my chest. The last captured airman had been brutally killed by a screaming mob. Ejecting in these circumstances was a horrific prospect. This thought and a thousand others reeled through my mind and were instantly wiped like raindrops from a windscreen. I needed total, complete and absolute focus.

In the head up display, I selected the gunsight. It showed a single dot, which had to be placed on the target, surrounded by a range countdown circle. During a strafe attack, you need to point the aircraft, not the gun. There was no guidance or precision homing to assist. The cannon was fixed to the boresight of the airframe. I had to line up the aircraft nose and physically aim the 27 mm rounds at the mark. The aircraft computers could take into effect the force of gravity on the rounds as they left the cannon at almost 4,000 feet per second. This was my only assistance.

I threw the Typhoon into a right turn to generate some

distance and line up for the attack. As I did so, I turned my head as far as I could over my shoulder to keep sight of the target. In the moments as I flew away, the target turned from a sizeable bush to a tiny speck vanishing to almost nothing. To make the picture more confusing, my target stood in undistinguishable scrub in miles of open desert. The potential to lose sight of that exact piece of undergrowth or confuse it with another was huge.

Christ, it was hard to keep eyes on. I strained my neck and took mental snapshots of the surrounding features.

From the ground, the jet would have been heard as a faint rumble, like an airliner, largely masked by the noise of ongoing gunfire. If the fighters had spotted me at this stage, I would have appeared as an indistinct dot high in the sky, several miles off and flying away from them. I hoped they were fixated on something more urgent. This gave me the edge I needed to make the attack a complete surprise.

In order to fire the cannon with accuracy, I had to dive from height to low level, right into the mix, at risk from every single weapon on the ground. My finger rested on the countermeasures switch, but no aircraft has protection against bullets from high calibre rifles. Given our activities over the last hour, I imagined they would be delighted to turn their guns skywards.

The JTAC was pressing for immediate action.

With a flick of the wrist, I overbanked the Typhoon onto the line of attack. Almost inverted, the jet spun effortlessly. I pulled the nose down through the horizon, settling into a thirty-degree dive, bang on the heading, and rolled the wings to level. At the same time, I brought the

throttles back to idle, to keep the engine heat and noise signature low. I wanted to arrive silently out of the sun. The speed was building. A growing speck in the dazzling sky. The Typhoon would be on them from three miles away in less than thirty seconds. Through 350 knots, accelerating fast.

'Dragon cleared live.'

My heart felt like it was going to burst through my flying suit. Sweat stung my eyes.

Do. Not. Fuck. This. Up.

1. Night One

RAF Akrotiri, Cyprus, 3 December 2015

The air was warm and muggy. We were a long way from our Scottish home. I could see towering cumulus clouds building into thunderstorms on the horizon. If talking about the weather is a hot topic for the British, it's an obsession for pilots.

I now stood with my wingman Jonny, wearing our flying suits and each clutching a brew, as we pored over the information pack detailing the target. We were in what was grandly called the squadron planning facility: a small, stuffy room with maps on the walls, a few old chairs, two computers and an electric kettle. The RAF never goes to war without plenty of tea.

The base consisted of a rudimentary series of brick buildings clustered at one side of the runway. Through the window, I could see six Typhoon fighters precisely parked like reflections of each other, their wings glowing in the dipping sun. It was late afternoon. We'd been on the ground for less than twenty-four hours.

Forty-eight hours earlier, I had got 1 Squadron together in our hangar in total secrecy. Surrounded by the jets sitting poised for action, I briefed the final preparations while we waited for the outcome of the House of Commons

vote on air strikes in Syria. If the motion were passed, we would be deploying on operations at first light.

Throughout 2015, the world had looked on in horror as terrorists in convoys of pickup trucks crossed Iraq and Syria killing everyone who stood in their path. They had seized an area of territory the size of France, killing tens of thousands, taken control of Mosul, a cosmopolitan city of two million, and planted their black flags over what they called the Islamic State.

The Middle East was collapsing. ISIS gunmen and suicide bombers had crept west into Europe. On 13 November 2015, 130 people were butchered and another 416 injured on the streets of Paris in the worst violence seen in France since the Second World War.

On 2 December, television screens played a live feed from the Houses of Parliament. The debate was noisy and ran late into the evening. Hilary Benn, the Labour Shadow Foreign Secretary, gave an impassioned speech about the urgency for action and the need to stop ISIS.

'They hold us in contempt. They hold our values in contempt. They hold our belief in tolerance and decency in contempt.' He paused and added. 'What we know about fascists is that they need to be defeated.'

We now had an hour before our first mission, sixty minutes for the mind to waver back and forth between fear and excitement. Even after all the training, dropping live bombs is hugely risky and a lot of things can go wrong. They say conflict is a failure of politics. Having seen the human horror of ISIS brutality in the preceding months on our television screens, this was decisive action and, no matter what your political allegiance, it felt like a greater good.

We wandered outside. The smell of rain carried on the warm air. I heard a rumble of thunder and the darkening sky lit up with a streak of lightning.

'Fly all the way from Scotland and it's bloody raining,' Jonny said.

It made me smile. Rain was the least of our worries. I took a quick glance at Jonny Anderson and wondered what god I ought to thank for having him as my wingman. He had started his career in the Parachute Regiment and had fought street battles in Fallujah in 2003. He then switched to the RAF, earned his pilot wings and was now one of the flight commanders on 1 Squadron. Jonny was a man of few words, as hard as rock, incredibly bright, greatly respected and had an inner stillness that gave me the extra layer of confidence I needed. The operation before us had so many moving parts I couldn't help recalling Murphy's Law, or Sod's Law, that anything that can go wrong will go wrong, and at the worst possible time.

Jonny shaded his brow as he looked up. 'A lot has got to come together if it's going to work.'

'Both weapons will need to be inch perfect,' I reminded him.

He nodded and shrugged his shoulders.

We needed to drop two 500 lb bombs with long fuse delays at a steep angle, with sufficient velocity to burrow through a dense layer of ancient rock into an oil pipeline. The second device had to enter the cavity made by the first impact one second earlier – a bullseye followed by a bullseye in the same restricted space.

The scientific study had assessed that the blast from

both warheads exploding in precisely the same location provided a fifty-fifty chance of blowing the pipeline.

I wondered if all the squadron commanders in the past had felt the same way as I did right now, before the first mission in a new conflict. It was a special moment, the culmination of everything. Full of nerves, already emotionally drained, hoping and believing that the training would be sufficient, but uncertain about what secrets lay waiting in that dark night ahead.

It must have been the same since the earliest days of aviation, with aircrews thinking the same types of thoughts, experiencing the same anxious feelings. I wondered how the heroes of the past would have responded to the conflicts of today: the Battle of Britain pilots, the Dam Busters.

Jonny returned to the office and I strolled over to Operations in the adjacent building. Engineers with tense expressions stretched cables around the walls, unpacked metal boxes, and shouted over the top of each other in ripe RAF lingo. A pair of size eleven boots stuck out from under a table as one of the team connected computer leads, and screens bleeped and buzzed as they blinked to life. They were still setting up the IT network to coordinate the dispatch of the jets with less than sixty minutes before the off. It was insane.

Ross Wherry – known as Wez – normally the most mild-mannered engineer, was effing and blinding down the phone. He paused as I entered and glanced over.

'You hang on a minute,' he said, and turned to me. 'Spares and tools still haven't arrived, boss,' he explained. 'I think the Warrant is looking for you, by the way,' and he went back to his harangue.

Daz Williams, one of our Operations team, stopped in front of me and I followed his eyes down into the cardboard box he was carrying.

'All checked and good to go, sir.'

Inside the box were two Glock 9 mm pistols and ammunition. We were going to be wearing them under our G-suits. I wasn't sure what good our small arms might be if we had to parachute into hostile territory. The last airman captured by the jihadis had been shoved in a cage and burned alive, the video of his murder uploaded for the world to see on the internet.

I imagined all the pilots had thought about how they might actually use their pistols if the worst happened. I know I had.

Daz made himself scarce as the squadron warrant officer approached with a fiery look in his grey eyes. Dave Bowman, always known to me as Mr B, was a tough Glaswegian who had spent the best part of three decades keeping RAF fast jets in the air. I had a rare affection for this no-nonsense Scot, knowing that he was in charge of the engineers caring for the aircraft.

'Fucking BBC's outside sniffing around the jets. Want to film the take-off. What the fuck is this? It's not a fucking air show!'

'Public interest, Mr B. They'll be gone tomorrow.'

He looked unconvinced. 'Public ought to keep their fucking noses out of our business, if you ask me.'

Media attention was the last thing we wanted, but it's not that often a Prime Minister sends the military on operations and a bit of flag-waving at home wasn't such a bad thing. Mr B sucked breath through his teeth.

'Deployed yesterday, air strikes today. It's an absurd timeline. The spares haven't even arrived yet.' I did know this but didn't interrupt. 'They're due in tomorrow on the C-17s. Only two jets are ready to go. No spare aircraft, I'm afraid . . .'

'Fully armed?'

'Aye, thanks to Ken working his magic. The weapons tools didn't get here either, but Ken brought his special rucksack full of odds and sods. He's sorted everything.' He was referring to Ken Gray, the engineer in charge of the Typhoon weaponry. Like Mr B, Ken had served extensively on operations in Iraq and Afghanistan and was no-nonsense. Mr B lowered his voice. 'Trust me, boss, you don't want to know the half of it. Just waiting on the crypto.'

A chill ran down my spine. No spares, no backup aircraft. I glanced at my watch. In thirty minutes we'd be walking out to the jets and we were still waiting on the crypto – the radio encryption software. After all the months of contingency training, the parliamentary vote, the hundreds of people involved in getting us to this stage, if that single email containing the digital crypto did not ping into our base computers in the next half hour, we would have to abort the mission.

I glanced around Operations. 'You've done a great job, Mr B,' I said, and a wry grin cracked his stern features.

'I wonder if the BBC crew know they're standing next to eight highly explosive bombs?'

'Feeling compassionate, Mr B? You'll be taking them out mugs of tea next.'

'Jesus H. There's me and my big mouth.'

'Last thing – can one of the guys test the ground radios? Would be nice to know they're working before we taxi.'

'Got it in hand, sir.'

He nodded and rushed off shouting instructions. Jonny, Mr B, Wez, Daz and the rest of the team were under enormous pressure. No one wanted to let the side down. I could feel the strain, having survived on minimum sleep for several nights.

Before a mission, there's normally time to coordinate tactics, consider targeting options, brief formations and discuss what's frequently a critical aspect of the operation: fuel. The Typhoon has a maximum flying time of about two hours. We did not have enough fuel to make it to the target and back and would have to air-to-air refuel before and after the attack. The irony was not lost on me that, if the strike were a success, while oil gushed from the punctured pipeline, we would have to gas up mid-air from a flying tanker on a moonless night littered with thunderstorms, over hostile territory.

The refuelling tanker would be flying an orbit over Iraq, eighty minutes' flying time and several countries away from our base in Cyprus. If we had a problem before the strike, it would take thirty minutes to fly out of Iraqi airspace to a diversion airfield. We would be operating in unfamiliar skies for the first time, with the threat of ground fire and stray aircraft belonging to Syria, Russia and Turkey. Just nine days before on 24 November, a Russian Su-24 jet had been shot down by an air-to-air missile fired from Turkish F-16s on the Turkish–Syrian border close to Latakia, where ground combat was taking place between Syrian government and rebel forces. The pilot was killed.

I returned to the squadron planning room where Jonny had been joined by three other pilots, Callum, JT and Weasel, all drinking coffee and considering the mission ahead. The guys wanted to study the brief and prepare themselves mentally for their own first sorties in the coming days.

Jonny and I huddled around the dusty computer as we read through the briefing notes. For twenty minutes we covered the basics: flight plan, routing and formation, air-to-air refuelling procedures, rules of engagement, escape and evasion. Then the strike itself. We would each launch a single GPS-guided weapon at the same time from a formation which put us at exactly the same distance from the target but on an attack axis that differed by a few degrees.

Dropping weapons from both jets would militate against weapons failures from a single aircraft and provide mutual support. By flying 'battle formation', in line abreast at approximately one mile apart, we could check each other's tails and see beneath the aircraft using night vision goggles (NVGs).

We would be flying close to two hotspots: Russian-occupied Syria, with its array of sophisticated weaponry; and the badlands of Islamic State, armed with infrared-guided missiles procured on the black market with its stolen oil money. We would stay high, out of the range of small arms, but no aircraft can fly high enough to avoid all the different types of surface-to-air missile. Battle formation provides mutual support, an enduring military tactic born in the Second World War and as relevant today as ever. Good formation flying and our onboard countermeasures were the two essential parts of our plan to defend ourselves if we were engaged by a missile.

After dropping our weapons, we would turn away from the target to ensure that we avoided the guided bombs in flight and didn't overfly the explosion. We would focus the night-sight cameras – embedded in the Litening targeting pods – to observe for weapons impact. We would then egress the area and make our remaining weapons available for any reactive tasking across the region.

'What can possibly go wrong,' Jonny said as he came to his feet.

2. Strapping In

The clock was running down. Ten minutes before the off. As we stepped out of the planning room and into the humid evening air, I knew what was on Jonny's mind by his focussed expression. I had the same thought.

'It's that time,' he said.

I strolled along the outside of the building and into the lavatory, and enjoyed a few seconds of calm standing before the aluminium trough of the urinal. There wouldn't be another chance for eight hours and there's nothing worse than a full bladder in a G-suit travelling at 500 knots.

Next stop, the flying-equipment room, a quiet space with our kit laid out by a specialist team. Jonny arrived, via the engineers.

'Any news on the crypto?' I asked.

'Still nothing.'

Dressing is a ritual, an essential part of the mental preparation and rhythm of a flight. First, I sanitized myself of all personal items, credit cards, driving licence, phone. I took the photo of my daughter from my wallet. She was on the beach in a blue T-shirt, blonde hair in a braid, with the toothy smile of a contented seven-year-old. Feeling more upbeat, I tucked the photo back in the wallet and placed it with the other items that I had to leave behind. I reached for my G-trousers.

Pilots have to parcel themselves into a G-suit to

counteract the G-force: the acceleration of an object relative to the earth's gravity. On the ground, we occupy a one-G environment with gravity pushing against you as it should. While turning in a jet, the G-force increases. The trousers have to be a tight fit over your flying suit. They zip up from the ankle to the waist and are secured by clips. Next, I stretched into the G-jacket which, when inflated, squeezes your chest and counters the pressurized air forced through the oxygen mask, ensuring your lungs receive enough partial pressure for oxygen transfer.

When pulling G, both the trousers and jacket inflate, squeezing your legs, abdomen and chest tightly to increase the blood pressure. If the G-suit doesn't fit or inflate properly, the blood can pool in your lower extremities and your brain can be starved of oxygen. The effect is a blackout called G-LOC (loss of consciousness) and is lethal.

The jacket also carries an auto-inflate life vest, should you eject into water, as well as an emergency locator beacon and radio to transmit your position.

I left the jacket unzipped, checked my NVGs and grabbed my flying helmet. Jonny gave me one of those nods that are meant to convey that all is well in the world, and we walked silently in step over to Operations. It was muggy still. I was hot in the G-suit and I could already feel a damp layer of sweat forming on my back.

'Hey boss, hey Jonny.'

It was the voice of Bobby Winchester, the squadron executive officer. He was in charge of operations for the evening. He looked us up and down, checking all the zips, buttons and clasps on our G-suits, an essential part of the pre-flight checklist.

'Here are your Glocks,' he said, handing us both the matt black military pistols with a couple of magazines. I snapped a ten-round mag straight into the gun and listened for the satisfying click as it lodged into place. I slipped the pistol into the canvas holster and adjusted the weapon so that it sat snuggly across my chest. I dismissed my earlier doubts about the weapon's practicality. Better to carry a gun, and not use it, than not to have it, and need it in an emergency. I zipped the G-jacket tight over the weapon. I felt the metal dig into my ribs.

In front of us were a couple of bottles of water, a stack of aircraft flight documents and the mission data cartridge, something we called 'the brick' – a device that transfers critical information to the aircraft computers. We signed the authorization sheets – the formal record of what we were about to do. It read: 'Operation SHADER Sortie 1'.

Bobby ran through the pre-step checklist to make sure we had considered all the possibilities: airspace, fuel, weather, emergencies, threats, escape and evasion. The last item was a personal check that we had sanitized properly.

'No phones, family snaps, receipts from Stringfellows?'

'Ha, all good,' Jonny replied.

'Yep, me too.'

'You're all set. Jets are ready. Good luck. I'll be on the radio.' That meant Bobby would be available on the ground radio during take-off and landing. If we had any issues, we could talk to the engineers or HQ.

We had to electronically sign for the aircraft as if they were two hire cars. It ran through my mind that all the

effort was going to be a waste of time without the crypto, when Wez darted through the room shouting at the top of his voice.

'Thank fuck, the crypto's arrived.'

He grinned as he bolted past me and ran out to the jets clutching a CD.

The Typhoons were fully armed and equipped: a cannon loaded with armour-piercing 27 mm shells, four 500 lb precision bombs, long-range radar-guided missiles, short-range infrared heat-seeking missiles, a laser designator pod, and two external fuel tanks, giving the jet 6,400 kilograms of fuel in all.

I finished the login and signed for the jet. Jonny did the same. As we left Operations and walked out to the aircraft, we were joined by Mr B.

'Everything's sorted, sir. The boys and girls have done an awesome job. We're good to go.'

'I never doubted it for one minute. Thanks, Mr B.'

We walked together towards the flight line for a few moments, then he paused.

'Hope it's not bad luck to say good luck, but you know what I mean . . .'

With that he turned immediately and marched back to Operations, barking some indistinct orders at a couple of the junior engineers.

We continued out towards the jets. A shower had just passed. The ground was damp, with small pools of water on the concrete reflecting the lights of the aircraft line. The air had the smell of wet dust and aviation fuel. Our aircraft, like film stars in the spotlight, stood below a halo of luminescence created by the portable lighting. Engineers

carried out last-minute checks, their shadows stretched and distorted.

I could just make out the hazy shadows of the BBC camera team off to one side. When the media reported UK combat over Syria, it would sound like the action of governments, but that action is carried out by individuals. Never before had I felt so much part of a team and so utterly alone at the same time.

'Take it easy, boss,' Jonny said.

'And you, buddy. See you in a bit.'

For whatever the next eight hours had in store, we only had each other. We exchanged nods – no more words – the British way. Jonny walked purposefully towards his jet and I walked towards mine. We would check in on the radio in about ten minutes.

The coast was a few hundred yards beyond the airfield perimeter. I could see in the far distance the street lamps of Limassol. It was surreal to think that just a few miles away people were leading completely normal lives, talking about what they'd done that day, putting their children to bed. I wondered what my daughter was up to. It would have been late afternoon back in the UK. Time for homework. A glass of squash. A treat.

I focussed, squeezing the thoughts out of my mind, and continued to stride towards the jet. As the familiar silhouette of the Typhoon took shape, I began to relax. It is, I have to say, a beauty of an aircraft, balanced with fine lines and carved like a post-modern sculpture. Now armed to the teeth with missiles and precision weapons, she had come of age. I felt an emotional connection and trusted her with my life. As I approached from the tail, Jamie

Robson, the engineer who would be conducting the aircraft see-off, walked towards me.

'Evening, boss. The crypto's in. She's all good. Ready for the pins?'

'Nice one, Jamie. Yes, thanks.'

He systematically pulled the safety pins from the aircraft and weapons. I made my way up the cockpit steps to drop off my helmet, NVGs and mission equipment: maps, attack plans, communication frequencies, airfield information. Thunder rolled in from the distance, the sound all but drowned out by the hum of the ground power unit plugged into the jet.

Leaning into the cockpit, I did the usual checks. The ejection seat and weapons switches all safe, the parachute harnesses correctly set. I flicked the battery switch to on. The power from the ground unit lit the cockpit screens and the aircraft systems immediately began to hum and whir. As she came to life, I started to feel at home. For years I had gone through the same pre-flight process. It is drummed into pilots to follow the same procedures, every time. It was memorized, automatic, robotic.

Dew had gathered on the metal steps and I almost slipped going back down to the ground to do the customary walkaround. Under the nose of the jet, the panels were buttoned up, decent tread on the tyres, brake indicators good. Under the right wing, the missiles were correctly installed and secure, seeker-heads undamaged, laser codes on the bombs, the fins tight and immobile. Flares and countermeasures secure. I moved around the tail fin. The brake parachute door was fastened, the hook correctly stowed. Now the left wing, careful of the missile fins,

which are razor sharp. I bent over to take a peek beneath the belly of the beast: no leaks; laser designation pod correctly armed.

The engineer held up the correct number of pins as I made my way back towards the cockpit. 'Nice one, thanks, all good.'

'Good luck, sir.'

It requires scores of skilled engineers and support staff to get one jet ready to launch. It's the ultimate team effort. I was fortunate to have what I considered the best squadron in the RAF.

'Thanks, Jamie.'

I climbed the ladder to the cockpit, eased myself into the seat and pushed the G-suit connector into its slot on my left side. It coupled firmly with a reassuring clunk. I pulled on my helmet and slid the leads into the housing on the jacket. With the oxygen mask in place, I switched on the microphone and heard the familiar rush of air, the crackle of the radio. I nudged the transmit button to check it was working, then pulled the ejection seat lapstraps tightly over my legs to marry them in the central clip. With the shoulder straps attached, but slightly looser, I shuffled in the seat to check everything was connected properly and none of the straps or leads were snagged.

The engineer withdrew down the steps and rolled them off to a safe distance. I was unable to see Jonny's jet due to the way the aircraft were angled. Ahead of me and all around in the darkness, Typhoons and Tornados sat in rubber hangars, temporary shelters erected quickly for the operation, that glowed orange in the harsh lighting.

I checked all the aircraft systems. Hydraulics, fuel,