

'A SERIOUS DERELICTION...'

Defiant Aircraft Accident: 1940

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On 29 May 1940 a Defiant fighter aircraft of 264 Squadron was badly damaged in air fighting over Dunkirk. By a strange quirk it was not until some ten days later that this same aircraft eventually crashed as the result of the battle damage it had sustained. The RAF's Air Accident Investigators in 1940, and more recently our Editor, **Andy Saunders**, unravelled the story.



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THE CONCEPT of the Boulton Paul Defiant four-gun turret fighter was very much that it should be a bomber-destroyer operating against unescorted bomber formations, and when the design was on the drawing board during the mid-1930s there was no thought that bombers operating against Britain would be escorted by single seat fighters. For one thing, the Me 109 did not have the operating range from German territory, and if the Luftwaffe were to attack the British Isles then they would have to do so using bomber formations that relied upon their collective firepower for defensive purpose. All that, of course, ignored the possibility that France might fall and thereby suddenly bring the single seat and single engine fighter at least into the range of

targets in South East England. Such a scenario was a game-changer for the Defiant's intended role, at least in South East England, and events very quickly showed the prowess of the Defiant as a bomber-destroyer to be all but impotent when faced with a determined defensive shield of Me 109s. Indeed, the aircraft could simply not compete against the agile Me 109, especially given the fact a Defiant pilot always had to manoeuvre his aircraft into a position whereby his gunner could get a bead on an enemy aircraft. Such a scenario was unworkable in the fast-moving arena of a dogfight, and the Defiant was immediately and fatally disadvantaged. Nevertheless, demands upon RAF Fighter Command during 1940 meant that there was pressure to throw the aircraft into the fray

and a belief persisted, at least initially, that the Defiant could still perform and score against bomber formations. To an extent, that would prove to be true. But it was a whole different ball game once Luftwaffe fighters came into the mix. That said, the Defiant did have some initial successes over Dunkirk with 264 Squadron, although those successes do seem to have been somewhat over-inflated.

THE 'GLORY DAY'

During the final week of May 1940, 264 Sqn were heavily involved in the fighting over the Channel coast and it was on 29th that the Defiant experienced its so-called 'Glory Day'. Unfortunately, subsequent research has taken something of the shine off that 'glory' and puts into better perspective the reality of events. ➤

BELOW:
Defiant aircraft
of 264 Squadron
during the early
summer of 1940.



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ABOVE:

Defiants of 264 Sqn dispersed at readiness in 1940.

BELOW:

Defiants of 264 Squadron 1940. The furthest aircraft, PS - T, is not the PS- T (L7004) featured in this article.

That morning the skies over Dunkirk were quiet due to low cloud over the airfields of both sides and only at around 13.00 hrs did the skies clear sufficiently for serious air fighting to begin. At 14.45 hrs, led by Sqn Ldr Philip Hunter, twelve Defiants took off from their forward operating base at RAF Manston and arrived over Dunkirk at 10,000 ft accompanied by the Hurricanes of 56, 151 and 213 Sqn at 15,000 ft. A hard fought action followed and 264 Sqn claimed the destruction of eight Me 109s, nine Me 110s and one Ju 87 before the squadron landed back at around 16.30 hrs with two of its aircraft damaged. One of the damaged aircraft was L7004.

ASTONISHING CLAIMS

Later that day, at around 19.00 hrs, twelve 264 Sqn Defiants again left Manston and headed for the skies over the French beaches. Here, again flying with the Hurricanes of 56 and 151 Sqn, and with Spitfires of 610 Sqn flying as top-cover, the Defiants spotted Ju 87s dive-bombing shipping some 8,000 ft below and dived to engage. The Stukas were caught pulling out of their dives and Sqn Ldr Hunter positioned his squadron to catch them. In the fierce engagement his aircrews claimed eighteen Ju 87s and a Ju 88 before returning home at 20.20 hrs.

Again, over-claiming was rife. In total that day, 264 Sqn claimed nineteen Ju 87s destroyed (quite apart from seventeen Messerschmitts and





ABOVE: Ground crew pose with battle-damaged Defiant L7004 after its engagement with enemy aircraft over Dunkirk on 28 May 1940.



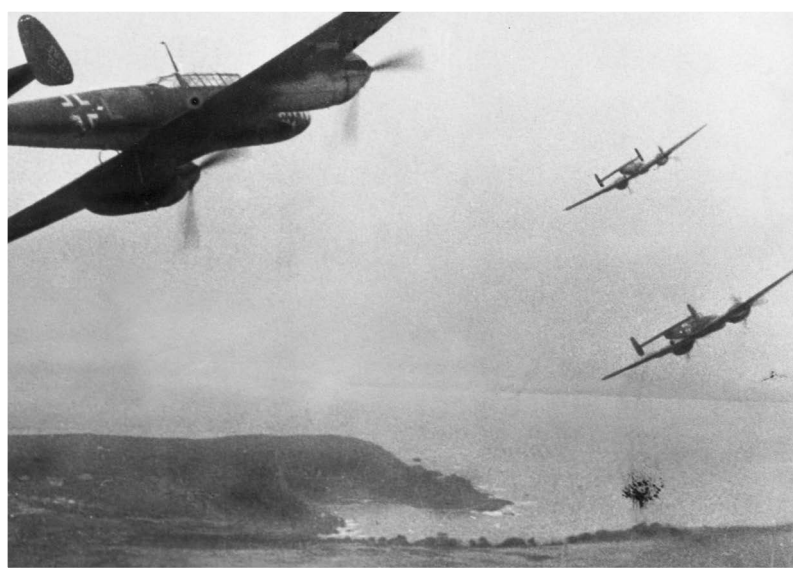
MIDDLE: Defiants of 264 Squadron on patrol, 1940.

gunner may well have been traversing his turret, adding further confusion. Consequently, any ability to follow an aircraft just engaged would have been severely compromised. Either way, the astonishing claims of 37 enemy aircraft destroyed in these two actions simply cannot be substantiated. Meanwhile, Defiant L7004 was in a sorry state from the morning engagement, with bullet and cannon shell holes in the tail, fuselage, turret and wings. The attrition rate of aircraft on the squadron, let alone aircrew, had been high and L7004 was, in fact, an aircraft delivered on 23 May as a replacement for losses suffered on 18 May when five out of six of a flight of the squadron's aircraft were shot down over Holland. Nevertheless, despite the extensive damage, L7004 was deemed repairable on site.

A HOWLING SCREAM

With repairs effected, L7004 was flying again by 4 June and on 7 June the aircraft took off from RAF Duxford at 11.30 with Plt Off William Carnaby at the controls and Plt Off Cyril Ellery in the turret. The pair were briefed to examine 'K' Sites (dummy or decoy airfields) at altitudes varying from 5,000 to 20,000 ft, but at 20,000 ft Carnaby had lost sight of the 'K' locations and decided to descend by putting his aircraft into a steep dive before returning to Duxford. Entering the dive from a stall-turn, Carnaby set the tail trim tab to 5°, adjusted the throttle to half open and the aircraft then fell into a straight and vertical dive which the pilot allowed to continue until the speed had built up to an extent where he had to push >>

a Ju 88) although the Luftwaffe's total Stuka losses that day were just three. However, although over-claiming was always a feature of such air fighting, the extraordinarily high tally claimed by the turret fighters might have a credible explanation. In one-on-one single seat fighter engagements, the pilot was better able to make objective assessments as to any combat claim if he followed or watched his victim crash. In the case of Defiant gunners, however, their view was restricted by a heavily framed turret, a view further obscured by the guns and aircraft structure. Additionally, he would likely have been disorientated as his pilot wildly manoeuvred the aircraft to get away from pursuers or to position onto the next target. Meanwhile, the



LEFT: In addition to the Stukas and Me 109s claimed by 264 Squadron on 29 May, the Defiants also claimed nine Me 110s destroyed and one Junkers 88.

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ABOVE: Flight Sergeant E R Thorn (left) and Sergeant F J Barker (air gunner) of No 264 Squadron RAF and their Teddy Bear mascot, presented to them by their ground crew, posing with their Boulton Paul Defiant of 264 Squadron.

MIDDLE: Pilots of 264 Squadron while away the time between operational sorties, 1940.

firmly forward on the control column to maintain the dive.

On the ground, villagers at Hadstock were used to the sound of aero-engines of aircraft from nearby RAF Duxford, but suddenly something sounded different. This time, the roar of a diving aircraft turned into a howling scream, culminating in what sounded like a series of loud cracks and bangs, almost like distant shotguns being fired. At once, the engine note changed to a quieter whistle and whine and those who glanced up into the clear azure blue sky were startled to see black objects hurtling earthwards. Above the falling black shapes, two white parachutes suddenly blossomed at around 5,000 ft. Meanwhile, a trail of debris comprising wings, engine, tail and fuselage parts impacted in a trail across over a mile of countryside, with much of the wreckage coming to earth

just south of the old route of Bowers Lane, to the south of the village and in an area later incorporated into what became USAAF Station 165, Little Walden airfield, in 1942/43. On impact, a fierce blaze broke out in the fuselage sections but the wing and tail parts, scattered far and wide, were undamaged by fire. Suddenly, and unexpectedly, the reality of the air war had come to sleepy Hadstock, although this was no result of air combat. Or was it?

'EVERYTHING WENT BLACK'

Immediately before the dramatic events which unfolded above Hadstock, Plt Off Carnaby felt a violent shudder which 'seemed to originate from the wings' although no movement of the control column was noticed. Then, straight away, the aircraft turned violently

to the right, through 180°, and the control column slammed over to the hard left of the cockpit. At this point, Carnaby heard a loud crack behind him and the machine became completely uncontrollable and continued to dive at high speed with the pilot reporting that everything then went black. He was not sure whether this was a result of greying-out, or if his oxygen mask had simply ridden up over his eyes, but he was able to shout 'Jump!' into his microphone before undoing his harness and abandoning the aircraft over the port side. Fortunately, Ellery had either heard his pilot's command or else had unilaterally decided to abandon the obviously stricken aircraft and was able to struggle free of the tumbling and disintegrating Defiant. The two men were lucky to survive, the accident report describing both Carnaby and Ellery as 'seriously injured'.* (Note: The 'normal' exit for the gunner was described in an Air Ministry Air Publication as out



LEFT: Squadron Leader Philip Hunter DSO, the CO of 264 Squadron (extreme left of group), briefs his pilots prior to a sortie. Hunter was killed chasing a Junkers 88 out across the English Channel on 24 August 1940. No trace of him or his air gunner, LAC F H King, was ever found.

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ABOVE

On 29 May 1940, 262 Sqn claimed 19 Ju 87s destroyed, 17 Me 109s, and a single Ju 88. (CHRIS GOSS)

BELOW:

Plt Off W F Carnaby, 264 Sqn, 1940.



through the rear turret doors, although an alternative exit was via the side of the turret base, through a fuselage bulkhead and out of an escape hatch in the fuselage bottom. In this instance, because of the rapidity of egress required by Ellery, it is assumed that he merely opened the turret cupola doors and fell out, backwards.)

Meanwhile, the cause of the accident was the subject of much consternation – not only by Carnaby and Ellery but also by the RAF's air accident investigators. With no question that the aircraft had been mishandled or over-stressed by the pilot, then doubtless the other aircrew on 264 Squadron, and across the RAF's Defiant force, were also anxious that the cause be discovered. Could there be some as-yet unknown structural weakness inherent in the Boulton Paul design? Answers needed

to be found. It was surely enough that the aircrew were going to war in a fighter that was ill-matched against the Messerschmitt 109 without having to contend with safety factors in the aircraft's build.

BULLET HOLE

Investigators were fortunate in their endeavours in that the aircraft had come down in several sizeable chunks, and although the fuselage and cockpit area had been extensively burnt it was equally fortunate that the cause of the break-up was very quickly pinpointed in some of the recovered wing sections which were unburnt and relatively intact. Structural failures were also very easily traced back to the damage L7004 had sustained on 29 May and repairs that had been effected on the squadron by Boulton Paul engineers.

Picking through the tangled remnants of one wing, investigators noticed something interesting; a battle-damage repair patch. Closer examination showed that a bullet had passed through the bottom skin of the wing and out through the top skin. To rectify this, the simple (and standard) repair expedient of cleaning up the jagged entry and exit holes and pop riveting patches in place was duly applied. Unfortunately, the damage had been somewhat more serious than just two simple holes in the wing skinning, and investigations with another Defiant saw tiny holes being drilled at the corresponding bullet entry and exit >>



THE GQ PARASUIT



ESCAPE FROM the cramped confines of the Defiant's gun turret could be a difficult business at the best of times, and it was quickly realised that wearing a standard seat-type parachute, or even a chest-pack, was impossible for the air gunner. Consequently, the GQ Parachute Company Ltd. were contracted to design and produce a piece of flying equipment uniquely manufactured for the special needs of Defiant gunners. This led to the GQ Parasuit which was a khaki green canvas-type smock incorporating the parachute and lifejacket into a single 'slim-line' design. The Parasuit featured a leather double-door flap arrangement at the back, behind which was housed the parachute in a relatively flat configuration. Pulling the rip-cord opened the door, released a spring-loaded drogue 'chute and pulled the parachute out of its pack. Users of the GQ Parasuit received the GQ Parachute Badge.

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RIGHT: Accident investigators found this battle damage repair patch on the wreckage of L7004. Ultimately, it would provide a clue as to the cause of the aircraft's loss.

FAR RIGHT: The inside of wing section showing the damage repair patch fixings and the fatally holed rib.

BOTTOM: A Defiant gunner in his turret. In flight, he was enclosed by panels which slid closed behind him.

points and a wire being passed through them. From this visual test it was noticed that the path passed through and would have severed the aft-most strut but-one of the wing rib, and the damage found on that corresponding rib showed that no repairs had been effected. Not only that, but one of the repair rivets had been driven through the bullet hole in the strut itself, and was thus affixed to nothing at all. Quite simply, the accident had been waiting to happen and Carnaby's steep dive on 7 June saw the straw that broke the Camel's back, or, rather, the rib which broke the Defiant's wing.

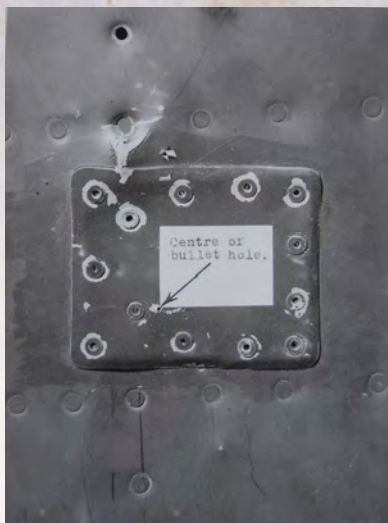
DAMAGED BY ENEMY ACTION

Summing up his work, the accident investigator noted:

'The accident was due to structural failure of the airframe occurring during a high-speed dive, the first part to break being the outermost rib but-one of the starboard outer main plane. The reason for the structural failure was that the rib had been damaged by enemy action and not subsequently repaired.'

Signing-off the report, Gp Capt Vernon Brown, the RAF's Chief Accident Inspector noted:

'I agree with this report. Although there was undoubtedly a serious dereliction on the part of the firm's representative entrusted with the repairs it should be borne in mind that they were done very hurriedly in the aftermath of the Dunkirk evacuation period. I have directed the firm's attention to the matter and have shown the damaged rib to the man responsible for the work.'



Doubtless, the hapless Boulton Paul employee was duly chastened by the disclosure to him of his shoddy workmanship and by the enormity of what had happened. Fortunately, it occurred without fatality although the outcome could certainly have been very different. And, of course, had the offending damage and faulty repair not been discovered in the wreckage then the cause would never have been known. Nevertheless, all of this was cold comfort to the RAF's Defiant pilots and air gunners. Dated as it was on 20 July, the report came just one day after the massacre of seven out of nine Defiants of 141 Squadron by Messerschmitt 109 over the English Channel. The suitability of the Defiant as a day fighter was being more than seriously challenged. Demonstrably, it was a disaster to put the aircraft up against formations that comprised Messerschmitt 109s. The Defiant crews now had rather more to worry about than faulty battle damage repairs.

In fact, and for the most part, those Defiants being shot down in ever increasing numbers didn't even survive to be repaired. The unknown Boulton Paul engineer's 'serious dereliction of duty' had become almost an irrelevance.

**NB: Pilot Officer William Fleming CARNABY (90157) returned to operational flying with 264 Sqn in August 1940 and claimed a He 111 destroyed over Dover on 28 August before his Defiant was severely damaged by return fire. He transferred to 85 Sqn and night-fighting duties on 22 October 1940 but was killed as a Flt Lt on 5 February 1943 when Mosquito HJ918 broke up in cloud near Church Fenton.*

Pilot Officer Cyril Charles ELLERY (78747) returned to duty with 264 Sqn on 18 June 1940, again flew with Carnaby and was responsible for the claim against a He 111 on 28 August 1940. He went to 150 Sqn in October and then came back to 264 Sqn on 9 November 1940. He survived the war, was released from RAF service in 1945 as a Sqn Ldr and died on 20 March 1977. ☉

