

RIVENHALL - THE HISTORY OF AN ESSEX AIRFIELD by Bruce Stait

THE CONSTRUCTION

The airfield at Rivenhall was built during 1943 and was typical of the scores of scores of such installations, which were constructed after the advent of the U.S.A. in the war against Germany.

In order to carry the war to the enemy the vast resources of U.S. industry were busily producing a heavy bomber force, while in England a crash programme of airfield building was begun.

The sites chosen lay mainly in East Anglia, a reasonably flat county, without the hazard of high ground and in an agricultural region with few large centres of population. As a bonus it also offered the shortest route for aircraft attacking the German industrial centers situated in the Ruhr valley.

Within the space of a few months, nineteen airfields were built in Essex, all of them in the Northern half of the county. Fields were leveled, drainage introduced, pipes laid and concrete poured. According to the R.A.F. official historian, Hilary St. George Saunders, each of the individual airfields required an average of 130,000 tons of concrete, ballast and cement and 50 miles of pipe and conduit.

Rivenhall was laid out with the standard three runways of the period, one of 2,000 yards and two of 1,400 yards. In addition the airfield was equipped with two hangers and the necessary quarters for aircrew and ground crews, control tower and bomb dump. The airfield had only a short operational period, a little less than two years. Much has been written of the neighbouring airfields and their units, but Rivenhall appears to have escaped the notice of the press, although its squadrons took part in two of the largest air actions of the Second World War, the invasion of Europe and the airborne crossing of the Rhine.

ARRIVAL OF THE U.S.A.A.F

The first unit to occupy the airfield was the 363rd Fighter group comprising three squadrons commanded by Col. John R. Ulricson, and equipped with the P51B Mustang. The group arrived in England on 23rd December 1943 having trained in the United States on P39 Aircobras, and began to receive their Mustangs in January 1944. They were the third U.S.A.A.F. Mustang Group, the first being the 354th based at Boxted near Colchester, since 1st December 1943.

Universally agreed to be one of the classic fighters of World War II, the Mustang was originally designed for supply to the R.A.F. as the P51A, powered with an Allison liquid cooled engine. The initial testing proved disappointing, but the decision to re-engine with a Rolls-Royce Merlin resulted in a vastly improved performance and in this form the Mustang was supplied to every theatre of war.

The 363rd F.G. aircraft were initially painted olive drab but replacements were generally in natural aluminium finish. The 380th Squadron aircraft were coded A9 with a blue band around the nose, the 381st were coded B3 with a yellow band and the 382nd C3 with a red band.

FIRST COMBATS

With the improvements in the weather conditions during the first few weeks of 1944, the 363rd F.G. after working up on what was for them a new type, prepared to join the other 9th Air Force combat units in operations against the enemy. The group, despite some initial shortage of aircraft, became operational for the first time on 23rd February 1944.

The U.S. 8th Air force, in pursuance of its daylight bombing policy, was engaged in attacking suitable targets in Germany. During the month of March 1944, Berlin, the capital of the Third Reich, was frequently attacked, and the Rivenhall Mustangs provided part of the fighter escort. Weather conditions were not always ideal and the attack scheduled for 3rd March was turned back short of the target due to the presence of large cloud formations.

Despite this however, the 363rd F.G. tangled with German Fighters for the first time, claiming two destroyed and one damaged for no U.S. losses. Initial excitement on the part of the Mustang pilots resulted in several minor incidents. Instead of jettisoning his external wing tanks, one pilot selected the wrong lever and let his landing gear down, while another, in the heat of the moment, forget to switch tanks and almost has his engine quit on him.

There was much jubilation when the Mustangs returned to Rivenhall after their first blooding. Perhaps it was just as well they could not know what lay in store for the on the following day. Similar weather conditions existed on the 4th March, but part of the bomber force pressed on with the mission. Somewhere near Hamburg the 363rd F.G. became separated from the bombers in the cloud that covered the area, extending up to 28,000 feet. A group of Me 109's from the elite I/JGI were ordered to intercept by the German raid tracking service. From the combats that followed, eleven Mustangs failed to return to Rivenhall.

There seems little doubt that the disaster was compounded by many factors, although the main force of B17 bombers was recalled because of the prevailing weather conditions, 31 bombers continued with the mission. The towering cloud provided excellent cover for the waiting German Fighters, enabling them to ambush the novices of the 363rd F.G. with terrible results.

Berlin continued to receive a hammering on the 6th and 8th March and once more the Rivenhall squadrons provided fighter escort duties for the 8th Air Force Fortresses. In order to provide fighter cover for the Allied invasion fleet that was assembling in South Coast ports, the 9th Air Force transferred all its fighter units to airfields in that vicinity during the month of April.

The 363rd F.G. left Rivenhall and moved to an advanced landing ground at Staplehurst, Kent.

THE 'WIDOW MAKERS'

15th April 1944 saw the arrival of the 397th Bomb Group comprising four squadrons commanded by Col. Richard T. Joiner Jr. equipped with Martin B26 Marauders, a twin engined, medium bomber, which became the mainstay of the U.S. 9th Air Force, undertaking many tactical bombing missions in Occupied Europe. There were seventy-five planes in all, painted olive drab on the upper surfaces with neutral grey undersides.

For ease of identification the group's Marauders carried a yellow diagonal band, about 21 inches wide, across the fin and rudder. The squadron codes were X2 for 596 Squadron, 9F for the 597th, U2 for the 598th and 6B for the 599th. Each aircraft had a single letter, applied to the fuselage aft of the national insignia, for individual identification of aircraft, but it was customary for the aircrew to refer to their plane only by the last three digits of the serial number, which was displayed on the vertical fin. Original serial numbers were approximately 42-96029 to 42-96125. Many planes had names and drawing on the nose; a short list of known aircraft is appended, and any additions would be welcomed.

ATTACK ON THE V2 SITES

Five days after their arrival at Rivenhall. On the 20th April, the group flew their first mission, a medium altitude attack against a launching base for the V2 flying bomb at Le Plouy Ferme, exactly one year after the group was activated at MacDill Field, Florida.

The launching sites for the Flying Bomb, (more usually referred to as 'Doodlebugs' by the civilian population) were priority targets for the Allied Air Forces as soon as the authorities fully realized the use to which these sites were to be put. In the Pas de Calais area a positive rash of buildings developed, each with a curious curved ramp that gave rise to the first name for this new discovery, 'Ski Site'. The 9th A.F. began a grim programme of attrition aimed at destroying the No-Ball targets, as they were officially known. To this end, they received valuable assistance from both the U.S. 8th A.F. and also the R.A.F. By the end of May, 103 of the original flying bomb sites had been destroyed out of a total of 140.

To achieve this, the Marauders had delivered an average 182.6 tons of bombs for each site. (Comparable figures are 165.4 tons for the Fortress and only 39.8 tons for the Mosquito). Despite the weight of these attacks, the first flying bomb fell on the British Isles in the early hours of 13th June. From then on, the firing rate increased steadily. Obituary notices, that might be helpful to the enemy, were forbidden in all local and national newspapers. The papers referred vaguely to 'Rocket attacks by flying bombs in Southern England'. After the war, the Fire forces Commander P.G. Garon M.C., G.M., commented wryly, 'Essex took up a devil of a lot of Southern England during the V2 attacks.'

Prior to the invasion of Europe, the four Rivenhall squadrons were called upon to play their full part in the important programme of interdiction, attacks against vital centres of transportation, bridges, railways and viaducts, in order to deny the German armies access to the battle area. The campaign was so successful that in the three months before D-Day, only four of the eighty special rail targets escaped serious damage and the Germans finally abandoned all attempts to keep account of the damage and destruction. Rail traffic over the whole of France declined by 70%.

The 9th A.F. had begun the main programme of bridge destruction on the 24th May and by D-Day (6th June) of the twenty-four bridges between Rouen and Paris, eighteen had been destroyed and the remainder blocked. The targets were frequently heavily defended; on the 28th May, the group attacked the Maisons-Laffitte rail bridge between Paris and Conflans and ran into the heaviest concentration of flak it has encountered to date. No aircraft were lost, but twenty-one returned to Rivenhall with battle damage. The group was not so lucky on a return visit to the bridge almost a month later, on the 24th June. On this occasion, flak accounted for the loss of four aircraft, three of the (42-96120), 121,127) being the original olive drab planes first assigned to the group. In addition two others were so severely damaged that they had to land in friendly territory. Replacement aircraft, arriving to take the place of those lost in combat or battle damaged, were left in their natural metal finish from approximately 42-96130 onwards. After some two months of operations, the majority of 397th Marauders were in this natural finish and properly dubbed 'The Silver Streaks' by the popular press.

During the summer months, the sight of and more particularly the sound of the Rivenhall squadrons became a commonplace sight for people in the surrounding villages. In the early morning, the ground would shake to the thunder of dozens of Pratt and Whitney engines as the 'Silver Streaks' roared over the fields and hedgerows, climbing for latitude. Later in the morning, heads would turn to the skies as the planes returned, anxiously counting the feathered propellers and other evidence of battle damage.

PRELUDE TO THE INVASION

Extraordinary precautions were taken on all airfields in Britain on the 5th June 1944. In order to prevent any leakage of information, workmen and civilians on the airfield were detained until the last plane returned on the Monday evening. Some indication of the rationing conditions that existed at that period of the war may be gauged from a remark made by one of the civilians and reported in the Essex Chronicle. "I had chicken for dinner" declared one woman who had been detained on an American airfield.

To provide instant recognition for the gunners manning the anti-aircraft defences on the invasion fleet, every Allied aircraft was painted with alternate black and white stripes, on wings and fuselage, subsequently known as 'Invasion Stripes'. These were applied on June 4th and 5th in a mammoth painting exercise which occupied most of the two days and some of the evening prior to D-Day. H-Hour on June 6th for the sea borne landings was set for 0630 hours. The U.S.9th Air force attacked three coastal batteries at first light and seven defended positions in the area of UTAH beach just prior to H-Hour. On this day, the 397th B.G. flew two missions, numbers 40 and 41. The weather conditions were far from ideal, heavy cloud with low overcast conditions covering the whole of the Normandy invasion area.

In the two months following D-Day, another forty-five missions were flown before the 397th said farewell to Rivenhall and moved to Hurn near Bournemouth, Sussex on the 5th August. By this time, the Allied armies were firmly established in France, and only twenty-one days later the 397th moved again to an advanced landing ground at Gorges, France.

In the subsequent months, the 397th B.G. continued to add to its already considerable reputation for knocking out strategic bridges; in fact their unofficial title seems to have been 'The Bridge Busters'.

An attack in the morning of 23rd December 1944 against a railway bridge at Eller, Germany, earned them a 'Distinguished Unit Citation' for outstanding performance. Despite the lack of fighter cover, the group successfully hit the bridge, but was immediately set upon by a large force of Me 109 fighters. During the subsequent fight seven marauders were lost, and only five of the planes that returned were undamaged. By the time the war in Europe ended, the group had flown 239 missions, the final one taking place on the 20th April 1945 exactly one year after the first mission from Rivenhall.

OPERATION MARKET GARDEN

In the 111 days during which the 397th was stationed at Rivenhall, a total of 85 missions were flown; the summer of 1944 had few days when bad weather prevented the aircraft from fulfilling their tasks in the air war against Germany. At mid-day on Saturday 7th October 1944, Short Stirling bombers, now converted to towing duties, made the cross-country flight from their airfield at Harwell, from which they had recently taken part in Operation MARKET GARDEN - the airborne drop at Arnhem. The Stirlings, and their Airspeed Horsa gliders, formed part of No. 38 Group, and many of the local airfields previously occupied by the U.S. Air Forces were taken over by the Group.

Two squadrons were based at Rivenhall, Nos. 295 and 570, consisting of two flights of each, 'A' and 'B'. No. 295 Squadron was coded 8Z for 'A' flight and 8E for 'B' Flight. 570 Squadron Stirlings were coded E7.

The Short Stirling Mark IV differed from the earlier marks in several external features. The nose machine gun turret had been replaced with a clear plexiglass observation position and the mid upper turret removed and faired over. This reduced the defensive armament to a rear turret comprising four Browning 303 machine guns. The bomb bays were retained, there was an exit hatch in the bottom of the rear fuselage for use by paratroopers, and each aircraft was equipped with a 'U' shaped tow attachment under the rear turret.

The stalky undercarriage was a distinctive feature of the aircraft. In order to improve the Stirlings performance, it had been decided to increase the angle of attack of the wing that would help to reduce the touchdown speed on landing. The consequence of this meant a longer undercarriage which resulted in an unfortunate tendency for it to collapse when turning off the runway too fast. In addition, the tyres were prone to burst after picking up flints or stones from the runways or perimeter track.

The Airspeed Horsa was perhaps the most successful glider used by any of the airborne forces in World War II. It was a high wing monoplane with a span of 88 feet (only 11 feet less than the Stirlings) and extremely large split flaps, which have been described as 'being as big as barn doors'. These flaps were the secret of its very steep descent and short landing run.

From the outside, the Horsa looked like any other big aeroplane, but without engines. As soon as one stepped inside the difference was evident - it had the appearance of a big model, everything in the structure being of wood. The sound of footsteps and the echoes in the fuselage sounded like walking in a wooden hut, and seated at the dual controls it came as something of a surprise to find they were made from laminations of multiply. In flight, the controls were heavy, as one would expect from such a large machine, and the ailerons had a 'delayed action' effect. After applying aileron to bank the aircraft in a turn or to pick up a dropped wing, there was no immediate reaction, which invited the application of more aileron, when it took effect and the ailerons were centralised, the wing kept on lifting, requiring opposite aileron, and so on. The result was over-controlling until the pilot got the hang of it. Altogether there were some thirty aircraft to each squadron, with the same number of gliders, and the airfield took a distinctly crowded appearance.

Practice flights were swiftly instituted and the local inhabitants saw for the first time just what the gliders were capable of in the hands of an experienced pilot. Contrary to popular belief, glider pilots were not volunteers. Such volunteers as there were fell far short of the requirements and in order to offset the heavy losses incurred during the Arnhem operation, many R.A.F. pilots were seconded to the Glider Regiment. This enforced transfer was the reason for a certain amount of bitterness in some glider pilots, who felt they had been trained for bigger and better things than gliders.

A tactical landing was a heart stopping sight. The Horsa, traveling at 100 m.p.h. would cast off from its tow, lower its huge flaps and point its nose downwards. This descent slope of 1 in 1 1/2 and to the onlooker seemed certain to end in disaster. At the last moment, the glider would round out, landing on its main wheels, rock onto its front wheel, and apply brakes. This manoeuvre, if correctly executed, could enable a skilful pilot to land the Horsa in little more than its own length.

The technique for mass landings was rather different, much longer landing runs were used to enable gliders to reach their appointed place and leave the area clear for others. In the early stages of training, many gliders landed outside the airfield perimeter, often in a badly damaged condition. The news of a crashed glider would flash around the district and unless a guard was placed on the wreck, many parts of it would swiftly disappear. Plywood was a rare commodity during the war years and a Horsa was built of very little else. Bungee rubber was also used in its construction and this also was quickly spirited away. The writer well remembers acquiring 1/16 inch thick plywood, useful for making model airplanes, which was removed from a Horsa, stuck firmly in a hedge. Parts of a number of fuselages may still be seen today, often used as shed in gardens or allotments. A standard Horsa comprised thirty production units, mainly produced in furniture factories, and subsequently assembled together. It weighed a total of 7000 pounds, and was capable of carrying twenty-nine fully loaded troops or a 75mm pack Howitzer.

Although the squadrons based at Rivenhall had the outward appearance of a glider group, the Stirlings were used extensively for several other duties besides that of towing Horsas. One of these was the supply of arms and equipment to the many resistance groups in Occupied Europe. The navigational efficiency required, in order to locate a pinpoint in the heart of enemy occupied territory had to be of the highest order. In addition, each aircraft, operating alone, had to ensure that the drops were made from a certain height with the greatest accuracy. The correct signal had also to be received from the reception committee, whose members often waited for the supplies at the risk of their lives.

The Norwegians were reported to be among the best at marking the dropping zones and in giving the correct signal from the ground. Aircraft flying to Norway had only approximately half an hour in which to locate the zone, in a land of mountains, mist and snow before a shortage of petrol made their return essential. The total flying time was approximately nine hours.

Warrant Officer Peter Baldock, of Braintree, flew with 295 Squadron as navigator of B-Beer, serial No. LK129. He recalls that Special Operations Executive (S.O.E) drops were made whenever the weather conditions were favourable. During the month of April, the aircraft of 295 and 570 Squadrons flew S.O.E. missions to aid the resistance fighters near Copenhagen and other place in Denmark. Wherever possible these operations were carried out in at least half moon conditions, as the final part of the navigation had to be visual.

Returning from a successful drop to the freedom fighters in Holland during this period, B-Beer was coned by the searchlight defences. The pilot pushed the control column forward to build up speed and began to take evasive action from the anti aircraft fire that was being hurled at them. Leveling out of the high-speed dive, in which the aircraft touched over 300 m.p.h., the rear gunner got in a good burst and knocked out one of the searchlights

OPERATION TABLEJAM 343

On the night of 26th April, seven aircraft took part in an operation code named 'TABLEJAM 343' and were assigned to different targets in Denmark. The defences were reputed to be severe and the instructions were to 'go in low'. B-Beer was one of the three aircraft that returned safely, after dropping its supply load of twenty-four containers and two packages. W.O. Baldock saw one of the Stirlings that was flying extremely low, belly in on the shores of an inland lake. On their return from the target it was learned that the crew of the crashed Stirling had escaped without serious injury, but there were casualties among the other lost aircraft. One of the hazards of low flying was small arms fire, the wireless operator of a 570 Squadron Stirling on the night of 23rd April was hit in the shoulder by a spent bullet, which was assumed to have been caused by small arms fire.

The Short Stirling was the first four-engined bomber of the war, although its limited ceiling prevented it from ever attaining the fame of its later compatriots, the Halifax and Lancaster. Nevertheless it did continue to serve in its original capacity with 295 and 570 Squadrons, both of whom underwent bombing training in addition to their other varied duties.

In February 1945 the crews put their training to good use when they were called on to perform tactical bombing in support of the 1st Army Group. The operation called for close support bombing, at night, just behind the front line. The aircraft successfully delivered their loads of 24 x 500 pound bombs, bombing being accomplished using 'Gee' radar control. Used correctly it was possible to bomb within an accuracy of 200 yards.

OPERATION VARSITY

Both of the Rivenhall squadrons, together with others of No. 38 and 46 Group took part in the final large scale airborne operation of the war, code named 'VARSITY' On Saturday 24th March 1945, in conjunction with Allied troops on the ground, the American 17th and the British 6th Airborne Divisions were landed on the east bank of the Rhine. Two days before, gliders, airborne troops and aircrews were 'sealed off'. They were not allowed to leave camp, post letters, telephone or be telephoned. On 23rd March the glider pilots, crews and airborne troops were carefully briefed. They were told that the success of their mission would considerably hasten final victory. At 2 a.m. on the morning of the 24th the crews were called, given

breakfast of bacon and eggs and received a last briefing that included final weather reports. All aircrews were given revolvers and warned that if they had to bale out over Germany the Nazis might be too disorganized and panicky to take prisoners.

The Stirlings were marshalled along the perimeter track, facing the main runway. The airborne troops, khaki clad figures with maroon berets, filed into the gliders that were parked together as a group. The tug aircraft converged on the runway from the perimeter track, the towrope was fixed and the next glider brought up by tractor. The Control officer signaled the first aircraft away at 0700. As one Stirling cleared the end of the runway another was given the signal to go. The take-off, with a fully loaded glider, was sluggish. The Horsa was first off the ground, after a run of about thirty seconds, and three seconds later the Stirling became airborne. The vast air armada made rendezvous over Hawkinge, Kent before heading out over the North Sea. The four-hour flight, in perfect spring sunshine, was fairly uneventful.

Nos. 295 and 570 Squadrons had the distinction of leading the airborne fleet over the Rhine at Wesel, where the gliders were cast off. The drop was not without incident. Fighter Bombers of the 2nd Tactical Air Force, whose task it was to nullify the defences, had been partially prevented from doing so by the early arrival by seven minutes of the tugs and gliders. The paratroopers and gliders had to descend through dust and smoke, in the face of anti aircraft and ground defences. The glider lands were exceedingly accurate, many touching down within 20 or 30 yards of their objective. Fortunately the casualties were light. About three hundred gliders were damaged, more or less severely, and ten were shot down. Among them was the Horsa towed by B-Ber, one of the first aircraft to cross the Rhine. All Stirlings from Rivenhall returned safely. With the Allied armies racing across Europe, the question of supplying essential materials to the forward areas became of paramount importance. During the month of April, Stirlings from 295 and 570 Squadrons were called upon to ferry 625 gallons of high octane fuel in jerry cans to Allied fighter aerodromes. It says something for the logistics of that period, when it is realized that in order to carry the 625 gallons to the waiting fighters, each Stirling used between 1,000 and 1,200 gallons of fuel on the round trip.

As the war in Europe drew to its close, the squadron's Stirlings were used in yet another capacity, as ferry aircraft. The advancing Allied armies liberated many prisoner of war camps and the freed prisoners were transported to Brussels. There, the Stirlings picked them up and flew them back to England and freedom. In the months that followed, Rivenhall became one of the busiest airfields in East Anglia, so much so that eventually customs facilities were installed. The Stirlings continued to ferry the returning ex P.O.W's and servicemen on leave or for demobilization, during the weeks following the end of the war in Europe.

On V.E. +1 10th May 1945, the squadrons of No. 38 Group were engaged in operation DOOMSDAY, the airlifting of troops for occupation duties in Norway. The manifest for B-Ber included 16 R.A.M.C. personnel, one motorcycle and one dog. An ex-Luftwaffe airfield, Gardermoen, 40 miles north of Oslo was the destination, where the German commander surrendered to the senior British officer. The German personnel continued to man the airfield services and to assist the turn round of aircraft. Tragically, three aircraft from the group crashed due to bad weather, which involved the loss of Air Vice marshal Scarlett Streatfield and many soldiers of the 1st Airborne Division. At the time of writing (1976) an attempt is to be made to recover the wreck of one of these Stirlings, No. LJ899 belonging to No. 19 Squadron, from Lake Rydafors, Sweden.

With the war in Europe over, the Rivenhall Stirlings began making almost daily trips to Brussels, Munster, Schleswig, acting as mail and newspaper carriers for the occupying troops. Occasional trips were also made to Copenhagen, Prague and Vienna. From September 1945, with the war in the Far East finished, the aircraft assisted Transport command in ferrying spares and machine parts to such far distant places as Karachi and Cairo via Tripoli. The 'slip crew' system was used whereby a crew took over an aircraft along the route in order to speed the whole operation and turn round. W.O.Baldock was unfortunate to be part of the crew when the aircraft was used to carry a load of carrier pigeons back from Tripoli. He still recalls the smell.

Rivenhall continued to be one of the busiest airfields in the U.K. until January 1946 when No. 295 and 570 Squadrons moved to Shepherds Grove airfield, situated 12 miles North east of Bury St. Edmunds.

On the 8th January 1946, 570 Squadron was disbanded, followed by 295 Squadron on 14th January.

Rivenhall - A History Of An Essex Airfield was first published 1984 and is now out of print.