



A Briefing Paper

By

The Association of RAF Fighter Control Officers

The D-Day Fighter Control Story

Compiled and Edited

By

Group Captain Tim Willbond RAF (Retd)

Acknowledgement

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The D-Day Fighter Control Story

Fighter Control During the Assault Phase of Operation Neptune – 6th June 1944

Introduction

By 1944 there was a wider understanding amongst the air planners that control of the air was a primary responsibility for the air force. Experience gained in the Battle of Britain, the Western Desert and Mediterranean had shown that success in controlling the air was dependent upon a system of command and control that used radar to provide warning of attack and a tactical picture of the airspace for battle management and weapons control. Surveillance using radar prevented the enemy air mounting surprise attacks and with intelligent battle management could be used to surprise the enemy. Moreover, the lessons from the North Africa campaign had also shown the value of radar cover beyond the front line to help both direct and protect offensive air operations.

The section of the French Coast selected for Operation Neptune, which was the code name for the assault phase for the liberation of Europe otherwise generally known as D-Day, was over 80 miles from the English coast. South coast radar units could provide some cover over the beaches but the advanced warning of enemy air approaching the beaches was insufficient to ensure control of the air. It was necessary, therefore, to extend the coverage for both picture compilation and tactical control and to establish ashore, at the earliest possible time, mobile tactical air control units to control and defend the air above the bridgehead.

Once again experience from the Mediterranean, especially, operation Husky, had thrown up many valuable lessons one of these was that units providing control of the air and the control of offensive operations as part of a composite RAF Group working alongside the advanced elements of the Army could not also provide picture compilation and the control of day and night fighters in the base areas and behind the front line.

Another lesson was that picture compilation, which included the track analysis (known as filtering) and the track identification processes, should be collocated with the composite Groups' operations centres and so these two operational capabilities were combined into one Group Control Centre (GCC). Prior to this the picture had been constructed and maintained by a separate Mobile Raid Reporting Unit (MRRU).

Air Organisation for Operation Neptune and Overlord

All RAF and US air forces assigned to operation Overlord – the liberation of Europe - were placed under the command of the Commander-in-Chief Allied Expeditionary Air Force (AEAF) with the RAF managing all air operations in the British area of responsibility and the USAAF managing air operations in the US area of responsibility.

In the UK area the plan was that No 85 Group would provide air defence behind the front line and especially all the base areas. The Second Allied Tactical Air Force (2ATAF)



was to prosecute the forward air battle including close air support to the army and it comprised two composite Fighter and Fighter Bombers Groups, Numbers 83 and 84 Groups, and a Medium Bomber Group - No 2 Group. Surveillance and control units providing air surveillance and tactical control were assigned to Numbers 83 and 84 Groups. Generally speaking, No 83 Group worked with the Second British Army and No 84 group worked with the First Canadian Army.

The forward battle was fluid and control of both offensive and defensive air did not lend itself to the structure that had been established for the defence of UK airspace. However, the defence of the base areas was modelled more on the UK system and under the Group Commander three base Defence Sectors were established. The AEF organisation is shown at Figure 1.

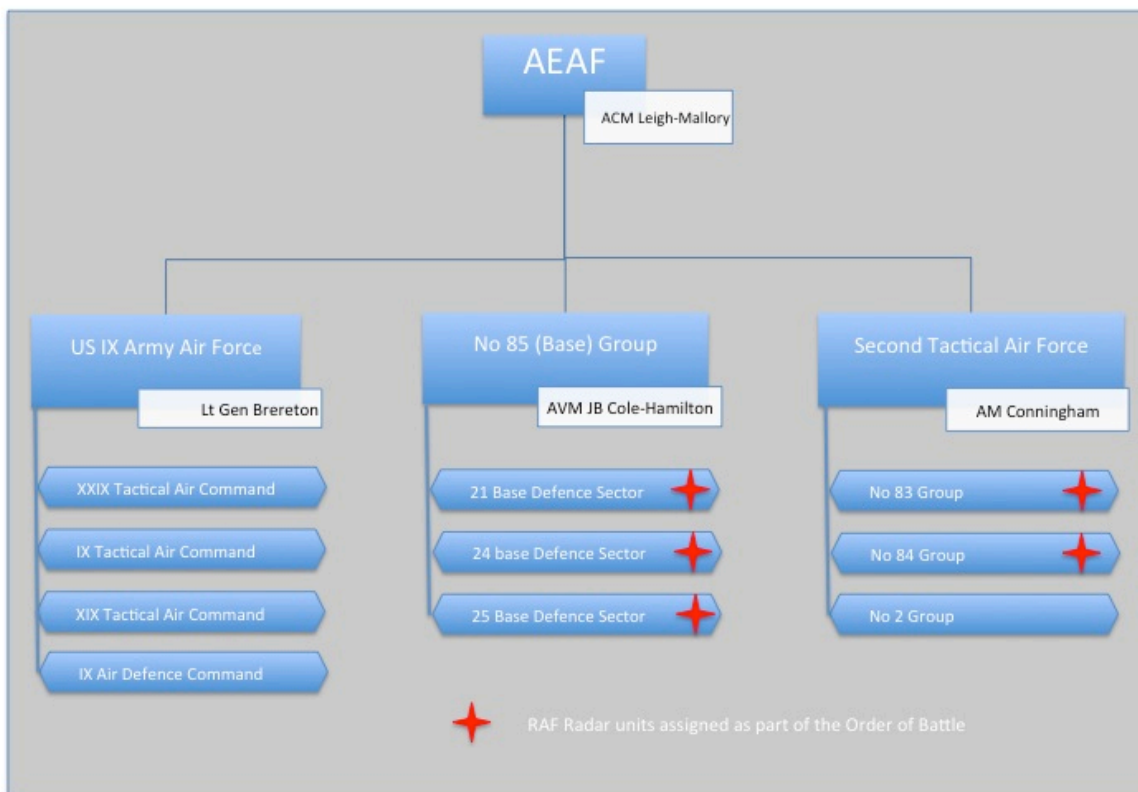


Figure 1 - AEF Organisation

Operation Neptune

Operation Neptune covered the assault phase and was all about establishing a firm bridgehead ashore by D-Day plus 1. The responsibility for the defence of the air for Neptune was vested in the Commander-in-Chief of Air Defence of Great Britain (ADGB), formerly Fighter Command, which was based at RAF Bentley Priory. The AOC in C delegated the operational control of air forces to undertake the task to AOC 11 Group. The challenge for the air surveillance and control system was to provide adequate forward cover and the seamless transfer of control of the air to 85 Group units; this group was to deploy the first tactical control units over the beaches.



The plan that was formulated required three seaborne air defence ships and so three Landing Ships (Tank) (LST) were converted as air surveillance and control ships; these were designated as Fighter Direction Tenders (FDT). The interesting point is that the FDTs undertook the full picture compilation role with their own filter centres and identification teams. A picture of the Filter Centre in an FDT is shown at Figure 2. The FDTs were Royal Navy ships under the command of the



Figure 2 - FDT Filter Table
Courtesy of Mike Dean



Figure 3 - Type 15 Aerial on an FDT. Courtesy of Mike Dean

Allied Naval Commander of the expeditionary naval forces but were operationally controlled by AOC 11 Group.

The concept of using ship borne RAF radar equipment for surveillance and control was first trialled in North Africa and then used during Operation Husky when LST 305 was fitted with Ground Control Interception (GCI) radar, then the Type 8 used by GCI units in the Mediterranean, control equipment and radios. The D-Day FDTs

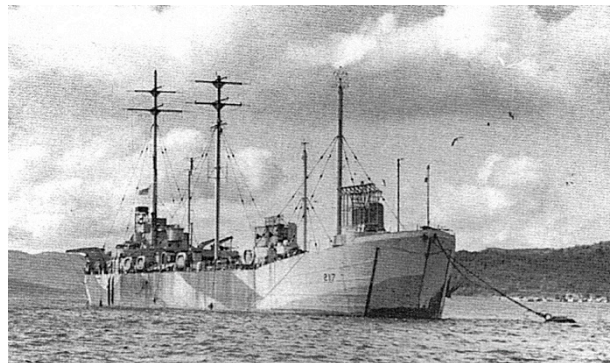


Figure 4- FDT 217

were equipped with the Type 15 and Type 11 radars for GCI control (see Figures 4 and 5) and a very comprehensive communications capability; a more detailed outline of the FDT capability is at Appendix 1.

The term GCI was a rather loosely used term. Originally it denoted units formed to undertake precision control against enemy bombers at night but the term was later used to denote radar systems and units that were designed for precision interception control. The FDT system proved so successful the AOC-in-C ADGB pressed for four FDTs to support Operation Neptune. However, only three were produced:



- **No 216 FDT.** FDT 216 was positioned seaward of the US beaches in the western half of the assault area. Its role was to produce a tactical picture over the US area, provide raid reporting and to exercise tactical control of both RAF and USAAF fighters tasked to operate in the area.
- **No 217 FDT.** FDT 217 was positioned seaward of the British beaches in the eastern half of the assault area to undertake the same role as FDT 216. However the ship was designated as the main coordinating FDT or 'master' control FDT; the senior RAF controller was aboard this ship¹ and had the additional role of managing fighter resources across the whole assault area.
- **No 13 FDT.** FDT 13 was positioned in the main shipping route to provide defensive cover over the shipping lanes.



Figure 5 - FDT 13

The FDT positioning in relation to the air corridors, shipping lanes and assault beaches is shown at Figure 6.

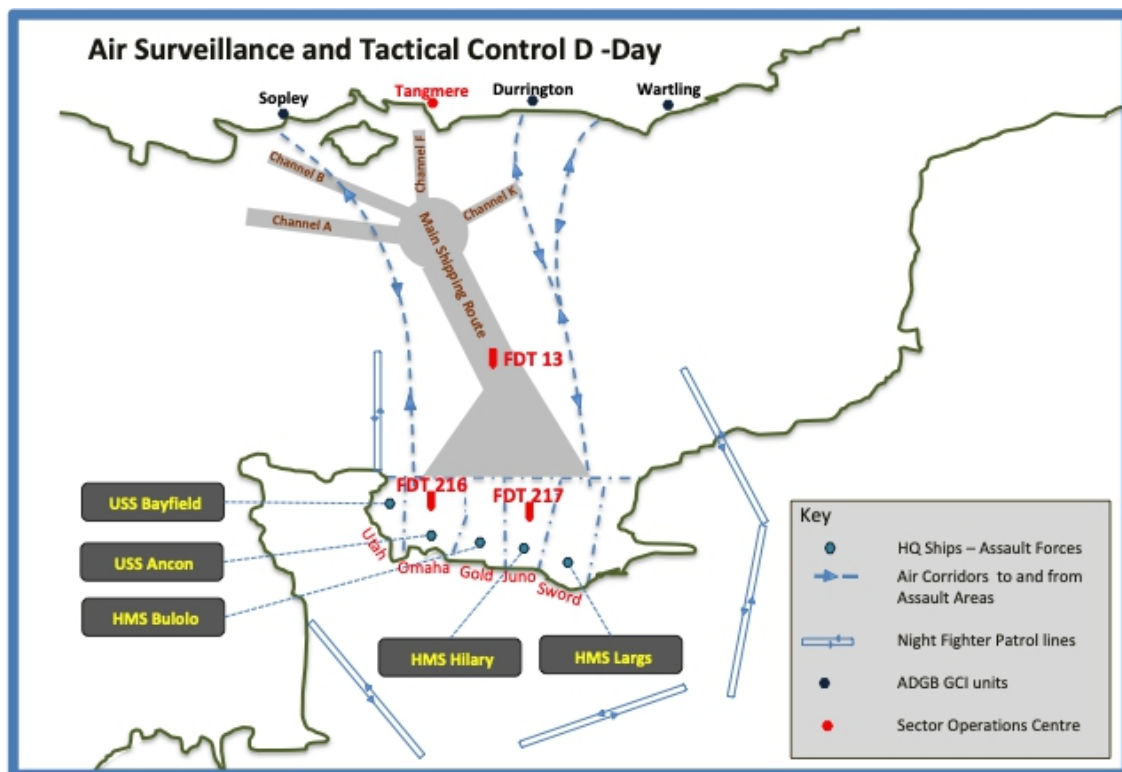


Figure 6 - Air Surveillance and Control D-Day

¹ The Senior RAF controller on FDT 217 was the direct representative of AOC 11 Group and as such was responsible to him for fighter operations in the assault area.



There was one problem with the organisation and that was very much tied to inter-service politics. The Navy was in command of the sea forces during Operation Neptune and Headquarters ships were assigned for each assault beach. It was deemed necessary for the Headquarters ships to issue air raid warnings and to exercise Anti-Aircraft-Artillery (AAA) fire control; in one respect this was sensible because they were well equipped with Radio Telephony (RT) sets. However, the main problem was that time necessary for the FDTs to pass the information to the HQ ships built in delays and on more than one occasion air raid warnings were issued as the raid was taking place. It was commented upon in the Air Historical Branch analysis that it would have been more efficient for the FDTs to issue the air raid warnings.

The plan for establishing a comprehensive air surveillance and tactical control capability ashore was for two complete GCI units of 85 Group to land about mid-day on D Day. One would land in the British (eastern) assault area and the other in the American (western) assault area; these were to be 15083 GCI and 15082 GCI respectively – see Figure 15. Both units were to be provided with Light Warning Units (LWU) which were equipped with Type 6 radar systems; the LWUs were deployed forward to fill gaps in the GCI coverage and to provide low level coverage and protection against low flying enemy aircraft.

Mobile Signals Units (MSU) provided Wireless Telegraphy (WT) and RT from 83 Group resources. The communications requirement was extensive with each GCI being provided with 7 High Frequency channels and 8 VHF channels.

The directive was that the units should ‘set watch’ as quickly as possible and establish communications with their respective FDTs - FDT 216 for 15082 GCI and FDT 217 for 15083 GCI. The GCI units were initially to act as subordinate units to the ‘master’ Fighter Direction Tender, FDT 217. This meant that operational control still lay with AOC 11 Group. No 15083 GCI in the British area was to build up to full capability as quickly as possible to take over as ‘master’ control unit in the assault area. This was to be effected in two phases, first, taking over responsibility for low level surveillance and tactical control of fighters providing air defence over the beaches and then taking over responsibility for high level coverage of the assault area. When this was accomplished, 15082 GCI in the American area and all the FDTs were to act as subordinate units to the ‘master’ GCI in the British area

During the assault phase all 85 Group units came under the control of the 2 ATAF and the spearhead for 2 ATAF was 83 Group and so AOC 83 group was given responsibility for all RAF units in the bridgehead. This means that as soon as 15083 GCI and other shore based tactical control units were fully operational and 15083 GCI had taken tactical control in the bridgehead operational responsibility chopped from AOC 11 Group to AOC 83 Group. To enable the AOC 83 Group to exercise operational control his Group Control Centre (GCC), No 483 GCC, was phased in early and once established on French soil it was to act in conjunction with the ‘master’ GCI as the master control on the Continent.



The plan required a rapid build-up of air control units which would see 19 tactical air control units of one type or another equipped with various radar systems operational by D + 14.

Number 15082 GCI was allocated to 21 Base Sector and was tasked along with lead elements of 21 Base Sector to land on Omaha beach in the American area at about 1200 hours along with its MSU and LWU. Number 15083 GCI, also with its assigned MSU and LWU, was tasked to land with elements of 24 Base Sector on Gold beach in the British area also at about 1200 hours. In addition, advanced elements of 483 GCC were to land on Gold beach.

The RAF elements that deployed over the beaches on D Day comprised beach parties, barrage balloon flights and there were some RAF Regiment personnel; however, the only major formed operational units to cross the beaches on D-day were Numbers 15082 and 15083 GCI Units with their attached LWU and MSU elements. A full list of RAF elements that landed on D Day is at Appendix 2.

Into Battle

Fighter Direction Tenders (FDT)

After a delay of 24 hours caused by weather on the 5th June FDTs 13 and 217 sailed from Cowes on the Isle of White. The following day FDT 216 also sailed from Cowes with convoy 13 for Juno beach; there were 12 LCT's and one ML in that convoy, escorted by HMS Burdock and the Greek corvette, Tompazis. Commanding the FDTs were:



Figure 7. Lt
Cdr Crozier

Lieutenant Commander R A Crozier, RNVR, FDT 13, (Figure 7), Lieutenant Commander G D Kelly, RNVR, FDT 216 and Acting Commander F A Smyth, RNR, FDT 217. The RAF senior controllers and in command of RAF personnel were: Squadron Leader Walters on FDT 13, Squadron Leader The Duke of Newcastle on FDT 216 and Squadron Leader Bennett on FDT 217. The sea conditions were very poor; however, the sea state moderated and the FDTs arrived at their respective positions around

0430 hours. To achieve surprise the assault force approached the beaches under complete radio silence. All the FDTs switched on their radars at H Hour, 0725 hours, and were immediately taking control of fighters providing the defensive air umbrella.

A total of nine Spitfire and Thunderbolt Squadrons provided air cover over the assault area during daylight hours. These Squadrons were under the control of FDT 216 and FDT 217. Four USAAF Lightning Squadrons controlled the air over the shipping route and approach to the assault area and these were under the control of FDT 13. In addition, a total of 38 night-fighter aircraft were controlled by the FDT's during the night of 06/07 June. The large number of friendly aircraft in the area combined with the dropping of "window" by friendly bombers presented Filter Room personnel with a most challenging and busy time in compiling the air picture.

On the first evening the Luftwaffe carried out a bombing raid on the British beaches, resulting



in casualties but no serious damage to shipping and stores. FDT 217 detected and identified the raid but it was quickly lost in the numerous echoes from the concentration of shipping and permanent echoes from the coastline. FW190 and ME 109 fighter-bombers subjected the beachhead area to sporadic attacks normally during poor weather or low cloud cover. There were also a number of JU88 raids at dusk. It was estimated that enemy air activity resulted in 30 to 40 sorties a night. FDT 13 saw little action because the shipping lanes were not subjected to enemy attack.

FDT 13 returned to port on 13th June for re-supply and on the 15th June FDT 217 replaced FDT 216 off the American beaches. FDT 216 returned to port for repair to damage suffered in a collision. FDT 13 returned to a station North East of Barfleur to counter enemy nighttime mine laying. On the 23rd June FDT 217 was withdrawn from the American sector after 17 days of continuous action.

On 27th June FDT 216 replaced FDT 13 off Barfleur; the shore-based GCI in the Barfleur area came into the line on 1st July and FDT 216 was moved to a position 23 miles West of Le Havre to defend against enemy mine laying aircraft.

At 0100 hours on the 7th July a single JU88 penetrated the defensive screen and, despite efforts to destroy or force the aircraft to deviate from its attack run by gunfire, attacked FDT 216 with a torpedo that struck the ship on the port bow.

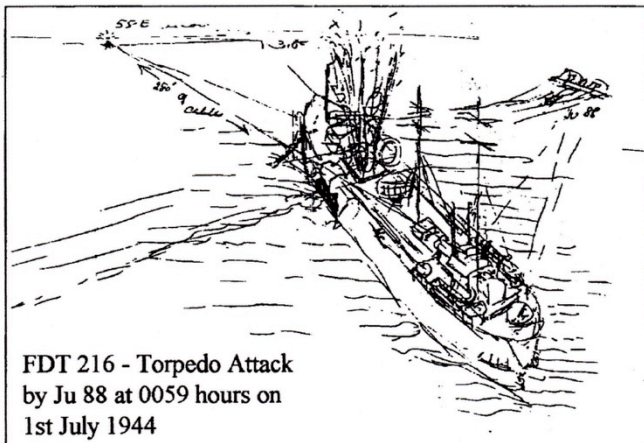


Figure 8. Drawing of sinking. Found in the National Archives and probably made as part of the Royal Naval report on the sinking

The report by Lieutenant Commander GD Kelly the commanding officer of FDT 216 stated: *"One torpedo was seen to splash about 1/2 mile on the port beam and the track was seen approaching the ship, at first I had hopes it was going to clear us. At 00.59 hours the FDT was hit with a great explosion a subsequent explosion ripped a hole in the ships side and smoke and flame blew out the elevator hatch up to mast height. The abandon ship order was given at 01.07 hours and the ship turned over at 0145 hours."* The escorting Corvette HMS Burdock went to the FDT's aid and had rescued the survivors by 0245 hours. Amazingly, out of a total complement of

some 90 RN personnel and 19 RAF Officers and 157 other ranks and the ship's dog only five airmen lost their lives; these men are remembered at the RAF Runnymede Memorial. The ship's gunner on HMS Burdock was mentioned in dispatches for his part in this action.

Speaking to the author in 2017, LAC Les Nower explained he was in one of the operations rooms with five other airmen when the torpedo struck the ship. Shortly afterwards the abandon ship order was given and they rapidly made their way to the deck. Les explained that he could not swim and he had never been any good at climbing ropes; however, he somehow managed to 'swim' quite a distance to the Corvette and scramble up the side of the ship and his next conscious memory was standing on the deck of HMS Burdock. Having lived into his 90s he said that he still could not bear to be near the sea.



The following is an extract from the report on the role and operation of ships and FDTs that took part in Operation Neptune: *“The Fighter Direction Tenders performed remarkably well and their operation was a great success. Continuous employment on a “watch and watch” basis of four hours on and four hours off, in poor working conditions, imposed a very serious strain on the personnel. The radar personnel had been on these vessels for five months, living in cramped accommodation intended only for tank crews on short transit trips.*

- *There was no air conditioning and the work areas were overcrowded with a lack of exits; they were widely considered to be “floating death traps.”*
- *No criticism could be found with the radar equipment. It worked efficiently and was never taken off the air for maintenance during the operation.*
- *The rigid procedures used in the selection of officers and men to staff the FDT’s proved to be justified by the way they all worked together under very adverse conditions. Indeed they were worthy of high praise.”*

Overall the FDTs performed extremely well in trying conditions and were worked near to capacity for the whole time they were off the beaches. The results achieved by the Fighter Direction Tenders during the period they were on station from the 6th June to 26th June 1944 are as follows:

At Night

FDT	Night Fighters Controlled	Number of Contacts	Visuals on Friendly Aircraft	Enemy Aircraft destroyed
FDT 13				
▪ 6 th to 12 th June – shipping lane	18	13	10	One Fighter’s guns jammed
▪ 15 th to 26 th June – off Cherbourg	64	195	157	12 One probable
FDT 216				
▪ 6 th to 14 th June – assault area off US beaches	62	49	33	3
FDT 217				
▪ 6 th to 14 th June – assault area off British beaches	205 ²	78	46	6
▪ 15 th to 23 rd June – assault area off US beaches	70	45	21	3 One probable
Totals	419	380	267 (70%)	24 (6.4%) Two probables

² Until 12th of June FDT 217 was the coordinating control unit and took initial control of all night fighters before allocating them to other FDTs or GCI units ashore. It is not possible to determine how many were actually controlled by FDT 217 against enemy aircraft



By Day

- FDT 13 Nil
- FDT 216 13 enemy aircraft destroyed
- FDT 217 39 enemy aircraft destroyed

Assault over the Beaches

Number 15083 GCI – The British Sector.

Number 15083 GCI, commanded by Squadron Leader RH McCall, and their associated LWU



Figure 9 - 15083 GCI landing on Gold Beach

Photograph Courtesy of Mike Dean

and telecommunications units embarked on the 3rd June in 5 Landing Craft Tank (LCT) and spent two very uncomfortable days at sea in rough conditions. They eventually landed between 1530 hours and 1640 hours over Gold - King Red sector - beach on the 6th June – see Figure 15. The LCT was well handled and the convoy disembarked in about 2' 4" of water; 2' 6" was the maximum that some vehicles could handle. The exception was a jeep that led off from the second

LCT containing two Wing Commanders from the advanced element of 83 Group headquarters. One was arguably the first Fighter Control ace with over 100 kills³ to his name - Wing Commander John Laurance Brown; the other was Wing Commander Mawhood who was also a very successful controller. Their jeep went into a depression in the sand at one stage only their heads and shoulders were visible above the water. It was reported that the amusement thus caused did much to ease tension.

The convoy disembarked without loss but its exit from the beach was delayed because of the weight of traffic. Once clear of the beach the convoy quickly found its earmarked site at Meuvaines but many tanks occupied it and the enemy was in a wood close by; the tank commander advised that they may have to fire over the site. Notwithstanding, Squadron

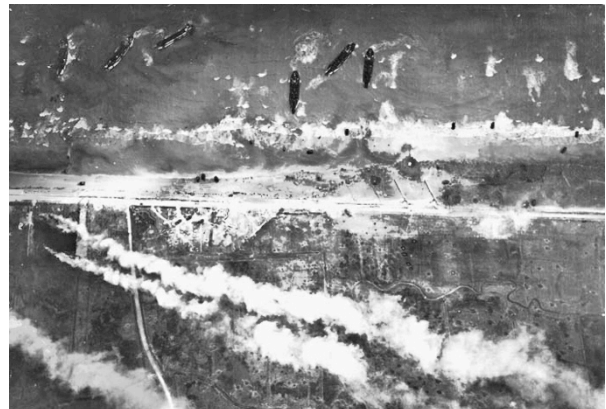


Figure 10. King Red Beach

Leader McCall was clear about his orders and set about establishing the unit on the site.

³ Upon arrival in North Africa it in 1942 it was reported that Brown had achieved 100 kills in the UK. Subsequent research has cast doubt upon whether this was possible but he certainly achieved a high score and it is recorded that when operating with 894 GCI in late 1942 he achieved 25 kills in only a few weeks. Altogether it seems highly likely that his overall 'score' exceeded well over a 100 enemy aircraft destroyed.



After organizing the grass to be cut to prevent tanks running over vital cables the unit was set up very quickly, despite an unfortunate intervention by Wing Commander Brown which led to a heated argument with Squadron Leader McCall about the speed of erecting the radar, and was operational by about 2230 hours in the surveillance role; however, there were a number of technical challenges and only one control position was initially available. That said, the unit controlled its first night fighter shortly before midnight on the 6th and the second position became available shortly after midnight. The MSU allotted to 15083 GCI landed on a different beach and was pinned down until an enemy strong point was liquidated. It reached the 15083 GCI position at dusk on D +1; from this point 15083 became fully operational and started the transition to become 'master' GCI in the bridgehead.

Although FDT 217 was the master control unit 15083 GCI took over the coordination of the day battle in the British sector on 8th June and tactical control of the night battle was chopped to 15083 on the 12th June.

The work of LWU 6091 is worthy of note. It was acting as forward cover for 15083 and was moved each night to a ridge overlooking the River Orne; the unit had been augmented with the addition of a controller to provide a control capability. It operated well forward under enemy fire and took a number of casualties including one controller killed. Nonetheless, it maintained cover at night over a vital sector and night fighters under its control destroyed nine enemy aircraft.

Flight Lieutenant Geoffrey Adams Harper, RCAF, was the unit's Radar Officer and much of the credit for the rapid deployment and achieving an operational status by 23:00 hours on D Day was due to his efforts. He was awarded a Mentioned in Dispatches and he was also subsequently awarded the Croix de Guerre.

Number 15082 GCI - The American Sector

The contrast between the landing of 15083 GCI and 15082 GCI could not have been greater. Number 15082 GCI with attached LWU and MSU along with elements of 21 Base Defence



Figure 11 - 15082 GCI Destroyed Convoy Vehicles Omaha Beach

Photographic credit - No 80-G-45714 in the US National Archives

Sector were all under the command of Wing Commander Anderson who was the senior officer from 21 Base Sector to land that day. Anderson was subsequently wounded and evacuated.

No 15082 GCI, which was under the command of Squadron Leader FJ Trollope, had embarked in five LCTs on the 2nd June at Portland and set sail on the 4th June only to return to harbour when the landings were delayed. The convoy sailed again at 0430 on the following morning and was



positioned off the coast of Normandy soon after dawn on the 6th June.

The first attempt to land on Omaha beach was made at 1130 hours but the beach was still under very heavy enemy fire and there was just not enough room because of the mass of corpses, wounded and wreckage and so it was decided to delay the landing. By late afternoon the beach defences were still being subjected to considerable suppressing fire from the Royal Navy but the RAF convoy was directed to land at St Laurent whatever the outcome. This was about a mile west from the originally planned landing point at Colleville-sur-Mer

As the convoy drew near the coast it became apparent that the beach was still under direct fire from German 88mm guns and littered with American dead and wounded, damaged vehicles and landing craft and with both exits from the beach blocked; nevertheless, the landing went ahead.

Four of the LCTs manoeuvred such that the landings took place in about 4 feet of water; this was really much too deep for the vehicles. On disembarkation several vehicles encountered even deeper water caused by shell holes and were almost totally submerged and were abandoned.

LCT 649 the fifth landing craft grounded on a sandbank a long way off the beach but registered 4 feet of water at the ramp; unfortunately, as the vehicles moved forward they quickly submerged into over 6 feet of

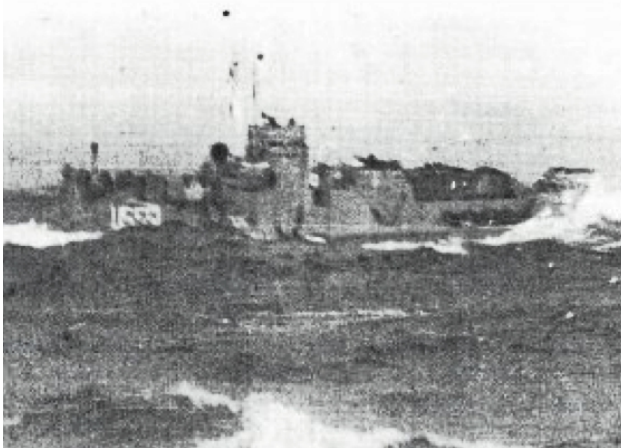


Figure 12. LST 551 with elements of 15082 GCI en-route to Omaha Beach.



Figure 13. Three personnel of 15082 on board an LST.

Image Courtesy of Muir Adair

water and all the vehicles, bar one which would not start, were 'drowned.' Despite a long swim to the beach all personnel made it ashore without loss of life. All in all, of twenty-seven vehicles that disembarked only eight were driven off the beach. Those of the nineteen lost vehicles that had not 'drowned' were disabled or destroyed by 88mm gunfire some of these can be seen at Figure 11. The beach was sustaining heavy and continuous fire and unit personnel temporarily dug slit trenches at the top of the beach in shingle until a safer place could be found. After a gallant reconnaissance by the Padre, The Reverend (Squadron Leader) C Harding, during which he secured a container of water for the wounded from a house still occupied by the enemy, Squadron Leader Trollope gathered his surviving personnel who were dispersed along the top of the beach and moved them to a safer place at the western end identified by the Padre. For the next few hours unit personnel were engaged in salvaging as much equipment as possible and helping move casualties mostly American troops to safety.

Image Courtesy of Muir Adair



For some 48 hours the unit medical officer, Flight Lieutenant RN Rycroft, attended the wounded, assisted by Medical Orderly Leading Aircraftman John Reid and the Padre who also gave succour to the dying. Those capable of doing so buried their RAF dead and moved to less exposed locations. Flight Lieutenant Rycroft is recorded as having given aid to 75 American troops whose immediate medical aid teams had been all but wiped out and LAC Reid was credited with treating more than 100. Rycroft, Harding and Reid carried out their duties under direct fire with limited equipment and both Rycroft and Harding were slightly wounded.

Whilst Squadron Leader Trollope was organizing a move off the beach his senior technical officer Acting Squadron Leader N Best with a small technical team was salvaging equipment from whole vehicles to small pieces of serviceable equipment from the beach under constant fire. The personnel spent a very uncomfortable night lying along the edge of a road from the beach to a nearby village. A low wall at the side of the road afforded some shelter from sporadic shelling and continuous sniper fire. One of the unit's radars - the Type 15 - was recoverable and by the end of the 7th June Squadron Leader Best advised Squadron Leader Trollope that they had enough equipment to achieve a limited operational capability – a remarkable achievement.

The original designated operational site was still in enemy hands. After consultation with US General Timberlake, the only senior officer with whom they were in contact, a new site was selected at Point-du-Hoc. Flight Sergeant Adair recorded that on (D +2) they located a number of replacement vehicles parked along a secondary road that led to Carentan. They realized they were for them because they had G15082 scrawled in chalk on the side of each vehicle; they had no idea how they got there.



Figure 14. Squadron Leader Best

The unit was ready to become fully operational on the evening of the 9th but because the bridgehead was now some 8 miles deep they received orders to move. The unit immediately packed-up but became operational in time to control during the evening of the 10th and claimed one enemy aircraft destroyed and one probably destroyed that evening. It is, indeed, fortunate that enemy air attacks were much lighter than expected and the master FDT 217 with cover from the satellite FDT 216 were able to provide sufficient cover until 15082 became operational.

Personnel who served on the mobile surveillance and control units received combined operations commando style training to fit them to survive and operate in combat field conditions. The Combined Operations badge can be seen on the arm of an LAC in the picture at Figure 13. The level of training they received can be illustrated by the actions of Flight Sergeant Muir Adair. He landed in an LCT but the vehicle he was in drowned and he had to swim to shore. Separated from the main body of 15082 personnel he gathered a number of personnel from various units, services and nationalities and organised them into an ad-hoc platoon that he then led to suppress snipers followed by an assault on and the clearing of German positions from an orchard that stood between him and his unit.

An interesting postscript is that the elaborate beach organisation that should have been in



place to ensure speedy disembarkation, keep the beach exits clear and generally manage events had not landed because it was deemed too dangerous!

Number 15082 received a severe mauling during the landings and 47 out of the unit's complement of 120 were injured or killed:

- Killed 1 Officer, 9 Other Ranks
- Missing 1 Other Rank
- Wounded 5 Officers, 31 Other Ranks – one of whom died later.

A map of the landing sites on Omaha and Gold Beaches is at Figure 15.

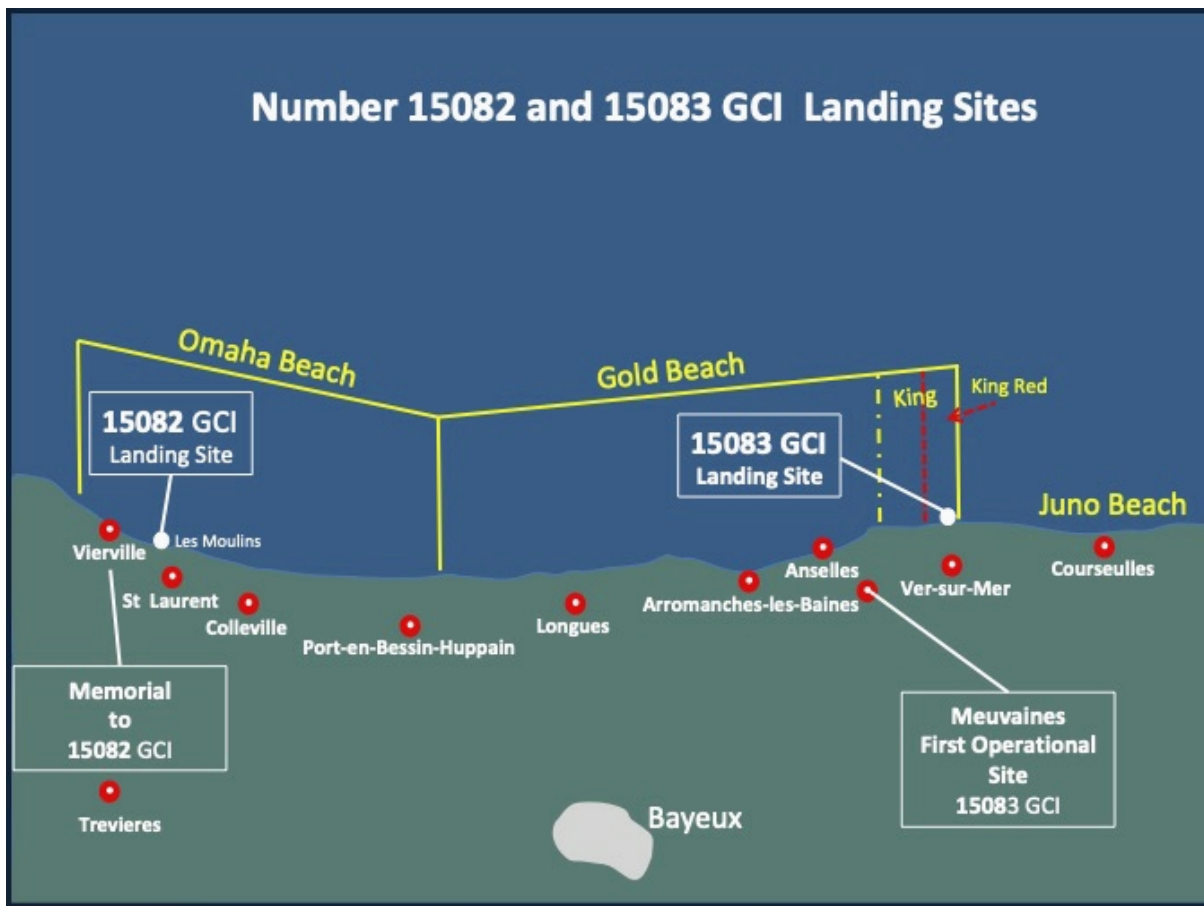


Figure 15. 15082 and 15083 GCI Landing Areas

There were some 10,386 Military Crosses (MC) awarded for gallantry to officers of all three services during the whole of the Second World War and of this number only 69 MCs were awarded to RAF officers. It is, therefore quite remarkable that from this small number four were awarded to officers of 15082 GCI on D-Day. In addition, a further two Military Medals were awarded to Other Ranks of 15082 and these are probably even more rare than the MCs. Even rarer still is the award of the Croix de Guerre to Flight Sergeant Muir Adair of the Royal Canadian Air Force (RCAF). An interesting side note is that the two Croix's de Guerre awarded to RCAF radar personnel on D Day are the only ones awarded to RCAF personnel. This is a seriously impressive total of gallantry awards and a suitable recognition of the way the unit fought its way off the beaches and established an operational capability so quickly after losing so much of its equipment and men. The full role of honour for Number 15082



GCI is attached at Appendix 3. The unit went on to serve in France until September during which time it is reported that it achieved the destruction of fifty enemy aircraft of which Squadron Leader Trollope MC is credited with 13 enemy aircraft destroyed, one probable and one damaged.

UK Based Surveillance and Tactical Control Units

The story of the Fighter Control contribution to D Day would not be complete without mentioning the contribution of the part played by UK based surveillance and tactical control units and particularly the No 11 Group Filter Centre in the UK. As previously mentioned the command of the air defences over the invasion force was the responsibility of Air Defence of Great Britain at Bentley Priory; operational control of the air operation was delegated to AOC 11 Group and it was his Filter centre located in Hill House, Stanmore that was responsible for compiling the air and surface picture for air command and control purposes. The Air Historic Branch records that the period leading up to Neptune and for days afterwards the south coast radar stations experienced the busiest period of concentrated activity in their history. They go on to record that the activity was so intense that every type of radar unit from the main Chain radars to Chain Extra Low radars that had a radar footprint across at least a part of the invasion area tracked activity. This combined information resulted in a very clear picture being presented to the Filter Centre and to the Naval plotting rooms. The Officer Commanding the 11 Group Filter Centre recorded that *“throughout the night the radar stations performed extremely well. It was possible for individual plots to be tracked but macroscopic methods proved effective and area raids were constantly plotted. The result, of course, was that a ‘practically perfect picture of activity was presented at all times to the operations room tables and maps of the various services which made command and control by the senior officers charged with directing and coordinating the whole operation so much easier.”*

The Sector Operations Centre at Tangmere provided the tactical control of fighter aircraft until they were handed to FDT control. Three Fixed GCI units provided delegated tactical control and a fighter marshal service and they were RAF Sopley, RAF Durrington and RAF Wartling.

Eileen Younghusband, a Filterer officer at 11 Group Filter Centre that produced ‘the practically perfect picture’ recorded on the day of the 70th anniversary of Operation Neptune:

“It is a very emotional day for me – commemoration of D Day and the landing on the beaches of Normandy. I came on duty in the Filter Room at midnight and I could see immediately from the Filter Room table, that we were picking up hundreds of ships in the British Channel. I knew then that the great day had arrived that we had been preparing for. I was on duty throughout the night until 8 am on this morning 70 years ago. I tracked the many boats taking the troops on to the beaches; I also tracked out the aircraft towing the gliders with the paratroops in them ready to parachute and I also picked up the German Stuka bombers that were bombing the landing vessels carrying our troops. I will be wearing my WW2 medals today as a tribute to the men, British French and American who took part in that momentous event.”



Conclusion

The significance of the contribution and achievements of the personnel and units of the then Control and Reporting(C&R) organisation as a key component of Orders of Battle across all theatres of operation during World War Two, has not always received the recognition that it merits. Most significantly, the operational contribution made by personnel and units of the C&R organisation to the success of D-Day has received scant recognition. The fact that a GCI unit was landed over Omaha beach to provide air defence over the US beaches and that so many awards for gallantry were made to the unit should be much more widely recognized and acknowledged, as, indeed, should the remarkable achievements of the FDTs and 15083 GCI.

The performance of the three FDTs was of the highest standard and their contribution was central to the success of Neptune. The dedication and professionalism of the men that manned and operated the FDTs in a very difficult environment was of the highest order and they deserve a place in history.

A noteworthy contribution to remedying the widespread oversight of the important role served by the Tactical Control and Mobile Signals units of 2ATAF and 85 group, from D-day throughout the Battle of Normandy, and subsequently through Belgium and Holland into Germany, was made by erecting on the approach to Omaha Beach, a memorial dedicated to the memory of those GCI personnel who gave their lives there on D-day. The memorial was unveiled by the British Defence Attaché and dedicated by the RAF Staff Chaplain on the 68th Anniversary in 2012. The moving force behind the creation of this memorial was Doctor Les Dobinson who was there in June 1944.



Figure 16. The Memorial to 15082 GCI and attached MSU. Les Dobinson pictured top right, on the right



Appendix 1 **FDT Establishment and Equipment**

FDT Equipment and Complement

The FDTs were modified at John Brown's Shipyard on the Clyde. They were highly capable surveillance and tactical control units. The equipment inventory included:

- A Type 15 GCI (Ground Control Interception) rotating gantry radar located at the bow of the ships about 30 feet above the waves. It was intended as the principal tactical and interception control radar.
- A Type 11 (Ground Control Interception) rotating gantry radar that was located amidships. The Type 11 used the same frequency as German systems on the basis that the Germans were unlikely to jam their own and, for the most part, the Type 11 was used off the beaches.
- Y Section intelligence gathering equipment for the interception of German radio "command and control" communications particularly between ground control and their pilots.
- A comprehensive suite of HF and VHF ship to ship, ship to shore, ship to aircraft communications.
- Radio counter measures (RCM).
- Plan Position Indicators (PPI) consoles for control of fighter aircraft.
- Mark 3 Identification Friend or Foe (IFF) fitted to both main radars.
- Airborne Interception beacons (AI) - to aid the control of night fighters.

Below deck there were various operations rooms including a radar room, a control room and a filter room with a Movements Liaison Section (MLS) for identification of aircraft. This was in effect a very sophisticated command and control centre.

The normal ships complement was about 250 comprising 7 RN Officers, 53 Seamen, 19 RAF Officers and 157 Other Ranks. The Establishment included three Squadron Leaders one of whom was designated the senior controller.



Appendix 2
Extract from Second Army OOB for D Day

18.

ROYAL AIR FORCE

Units which landed during the Assault phase. (1)

1304	Mobile Wing Hdqs	R.A.F. Regiment
1305	"	"
104	Beach Section	"
107	"	"
15082	Ground Controlled Interception Unit	(2)
15083	"	"
21	Base Defence Sector	(2)
24	"	"
51	Beach Balloon Flight	
	Provost and Security Unit	
	Emergency Landing Strip Echelon	
11	Air Formation Signals	{ $\frac{1}{4}$ Line Section}
16	"	{ $\frac{1}{2}$ Wing Section}
	Mobile Signal Units Nos:	
	543; 554; 582, 585, 5006	(1); 5030;
	5132 (1); 5141 (1); 5153 (1);	5160;
	5275	(1)

NOTE (1) All Units came from Nos 83 and 85 Groups.

(2) These units landed through the First American Army Sector.



Appendix 3
Roll of Honour No 15082 GCI

 *Number 15082 GCI* 
Roll of Honour

Military Cross



Squadron Leader Frederick Joseph TROLLOPE, RAFVR



The Reverend Geoffrey Clarence HARDING, RAFVR



Acting Squadron Leader Norman BEST, RAFVR



Flight Lieutenant Richard Noel RYCROFT, MRCS LRCP RAFVR

Military Medal



Flight Sergeant Reuben EKERSALL, RAFVR



Leading Aircraftman John Young McGregor Sayers REID, RAFVR

Croix de Guerre



Flight Sergeant Muir ADAIR, RCAF