

BARNHAM, ST EDMUNDSBURY, SUFFOLK RAF BARNHAM, SPECIAL STORAGE SITE

DOCUMENTARY ANALYSIS OF SOURCES IN THE NATIONAL ARCHIVES

Wayne D Cocroft and Derwin Gregory



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**BARNHAM
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SUMMARY

In 1998, the Royal Commission on the Historical Monuments of England (RCHME) undertook a survey of the atomic bomb stores, Special Storage Site, at former RAF Barnham, Suffolk. This comprised a photographic survey, and a site description based on a field visit and original drawings (Cocroft 1998). The site was also briefly described and illustrated in *Cold War Building for nuclear confrontation 1946-1989* (Cocroft and Thomas 2003, 29-34). Later, the site was protected as a Scheduled Monument (1020781) and a number of its buildings listed. In 2008, Mr Eldred and English Heritage funded a Conservation Management Plan (ACTA Purcell Miller Tritton 2008), which has guided subsequent innovative work to conserve its 1950s steel and reinforced concrete structures. It was in the context of this work that the Operational Record Books of No.94 Maintenance Unit were investigated at the National Archives, Kew.

This brief report provides a commentary on the entries in the Operational Record Books, in particular where they are able to clarify the chronology of the site and shed light on the storage of nuclear weapons. Building numbers referred to in this note correspond with those in the original site report (Cocroft 1998).

CONTRIBUTORS

This report is based on documents transcribed at the National Archives, Kew, by Derwin Gregory the commentary on the archive documents was prepared by Wayne Cocroft .

ARCHIVE LOCATION

The original documents on which this report is based are in The National Archives, Kew.

DATE OF DOCUMENTARY RESEARCH

MARCH 2011

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RAF BARNHAM, NO.4 MAINTENANCE UNIT, SPECIAL STORAGE SITE

Introduction

To ensure the effective operation of Britain's first atomic weapons two purpose-built and nearly identical bomb stores were built at RAF Barnham and RAF Faldingworth, Lincolnshire. The Operational Record Books for No.94 Maintenance Unit, RAF Barnham, provide a monthly account of the unit's activities. In addition to personnel matters they also shed further light on the development of the site and the daily routines of handling nuclear weapons.

The Special Storage Site, known to its personnel as 'Top Site', of No.94 Maintenance Unit was formed in June 1954 under the command of Wing Commander H W C Harwood, suggesting that by this date building work was substantially complete (TNA: PRO AIR29/4110, Aug 1957, 1). Over subsequent months it became the main holding unit for the Mark I Atomic Bomb, codenamed *Blue Danube*, until November 1956 when 'the operational stations of the Bomber Command were stocked to capacity' (TNA: PRO AIR29/4110, Aug 1957, 1).

Improved facilities

In August 1957, it was noted that the airmen's mess (Building 77) 'has been extended and has improved out of all recognition' and by November an amenity room had also been added (TNA: PRO AIR29/4110, Aug 1957, 6; TNA: PRO AIR29/4110, Nov 1957, 2). To further improve facilities for those living on site in May 1958 a recreation room was handed over, and games equipment and material for the hobbies section was demanded (TNA: PRO AIR29/4110, May 1958, 2). Its location is unknown, but may also have been located in the airmen's mess.

In September 1957, discussion began about the location of a new non-explosives inspection building that may probably be equated with Building 85 (TNA:PRO AIR29/4110 Aug 1957, 1). It is assumed that these discussions ran on into 1958 when a site for the new AIS and Servicing Section was discussed, and its location agreed in April (TNA:PRO AIR29/4110, 19 Feb 1958, 2; TNA:PRO AIR29/4110, 28 April 1958). Further developments in early 1958 included the completion of a new check post at the entry to the Special Storage Site, this was probably Building P, Picket Post (TNA:PRO AIR29/4110, Jan 1958, 3). In June 1958, the fire section was moved from the nearby site at Little Heath to the Special Storage Site. It was at first accommodated close to the entry to the Special Storage Site in Building 66 before it was moved to Building 68 in the motor transport section close to the main gate (TNA:PRO AIR29/4110, June 1958, 3).

Improved security

In 1957, further measures were taken to improve the security of the site, principally by creating a fenced sterile area, lit by electric lights and protected by trip flares and guard dogs. An air photograph of January 1956 showed that the original fencing arrangement

was unaltered at this date (I540/RAF/I778 frame 0128, 16 Jan 1956). By October 1957, the re-arrangement of the sterile area fencing was completed, along with a new electrical entry gate and perimeter lighting (TNA: PRO AIR29/4110, Oct 1957, 2). In November 1957, it was confirmed that the perimeter lighting had been in use for a month and that work was in hand to clear scrub around the site to create a 75 yard (68.58m) cleared area (TNA: PRO AIR29/4110, Nov 1957, 2; TNA:PRO AIR29/4110, May 1958, 2). This was delineated by Dannert wire - coils of barded wire. At the end of 1957 they were still waiting for new searchlight towers and more powerful searchlights, and it was noted that the towers would be placed in recesses in the fence (TNA: PRO AIR29/4110, 31 Dec 1957, 2).

These security measures were under constant test and throughout the Operational Record Books references are found to members from Headquarters Provost and Security Services attempting to breach the site's security, but on only one occasion was entry gained to the danger area (TNA: PRO AIR 29/3274 12 April 1962, 1). In December 1961, information was received that the site might be the centre of a local 'Ban the Bomb' demonstration, but this came to nothing (TNA: PRO AIR29/3274, 9 Dec 1961).

Nuclear weapons storage

The normal function of the maintenance unit was to receive completed weapons from the Ministry of Supply, issue them to operational RAF units and finally to receive non-operational weapons back into storage for maintenance or disposal (TNA:PRO AIR29/4110, Aug 1957, 1). In 1957, this distinction was blurred by a request from Bomber Command to store operational weapons from RAF Honington at Barnham (TNA: PRO AIR29/4110, 31 Dec 1957, 2). At this time, under 'Project E' United States' nuclear weapons were being stockpiled on RAF airfields for use in time of war, the move to Barnham may have freed space at RAF Honington for these weapons (Wynn 1994, 258-62). This was moved confirmed and in 1958 DD Building 59 (now demolished) was cleared for use by Bomber Command (TNA:PRO AIR29/4110, Feb 58, 1). The transfer of responsibility for this building and 20 AD buildings (core stores) was made in March 1958 (AIR29/4110, March 1958, 1). Movement of Bomber Command stocks into this building were completed by May 1958 (TNA:PRO AIR29/4110, May 1958, 2). In July, a second storage building, Building 60, along with a further 16 AD core stores were handed over to Bomber Command (TNA:PRO AIR29/4110, July 1958, 1).

Weapon characteristics and handling

Unsurprisingly, the Operational Record Books do not provide a great deal of information about the storage and handling of nuclear weapons. They do, nevertheless, help to flesh out some of the handling practices within the unit and some of the maintenance issues with this first generation atomic weapon.

The Mark I Atomic Bombs issued to the RAF for operational use were large, cumbersome and complex weapons measuring 24ft (7.3m) in length and weighing about 10 tons (10.16 tonnes). They comprised three main sections, a nose unit, a central

section containing the explosives lenses that surrounded the fissile core, and a tail unit.

The central section included an airframe to support a 5ft (1.52m) diameter 'physics package'. This comprised a series of high and low explosive lenses secured by an outer metal shell with an electronic detonator attached to each lens. The explosive content weighed about 2.47 tons (2.5 tonnes). To ensure the operation of the weapon the nose section was packed with various fuzing systems, these included radars that were used to determine the bomb's height from the ground, and might be used to initiate an air burst detonation. If these failed or were jammed it was also equipped with barometric, grazing, and mechanical time fuzes. To power these electrical systems the bomb was fitted with various batteries and turbo-generators. The tail section may have also contained other electronic equipment as well as a parachute to slow its descent and devices to extend its tail fins. It is unclear if the *Blue Danube* bombs were stored as single units, or if for ease of handling and maintenance the bombs were stored in three separate sections. For safety reasons the fissile cores were stored in small stores with double combination locks, and would only be inserted prior to an operational mission. At this time some of the cores' components had a relatively short half-life and to ensure their effectiveness required regular maintenance by the Atomic Weapons Research Establishment Aldermaston, Berkshire. One source notes that Blue Danube was moved around in one piece (Allisstone 2005, 59). While another reference suggests the nose and centre sections were secured separately (TNA: PRO AIR29/4110, 10 March 1958, 1).

The first weapons assemblies were delivered to the site in July 1954 (TNA: PRO AIR29/4110, Aug 1957, 1). Subsequently, the monthly reports often record issues with various sections of the weapon. In August 1957, problems were encountered with the firing cables on several centre sections, a cartridge tube and firing unit (TNA: PRO AIR29/4110, Aug 1957, 6). In a number of reports problems were encountered in the Firing Installations with trigatrons, glass valve-like devices that were used to handle high currents and voltages, and defective E.H.T. (Extra High Tension) plugs (TNA: PRO AIR29/4110, Oct 1957, 1; TNA: PRO AIR 29/4110 January 1958, 3). Reference is also found to problems with the Cartridges, although it is unclear if these refer to the tubes holding the cores that were stored in the small AB core buildings (TNA: PRO AIR29/4110, Aug 1957, 1). In March 1958, there was a rare mention of radioactive materials, when a problem was reported of corrosion on a uranium slug (TNA: PRO AIR 29/4110 10 March 1958, 2). From the reports it is also clear that the nose and centre sections of the weapon were stored at Barnham (TNA: PRO AIR29/4110, Oct 1957, 1). The accounts report periodic inspections of electronic items, such as the radar and air burst fuzes (TNA: PRO AIR 29/4110, Nov 1957, 2). Mechanical problems were also encountered in February 1958 with some of the outer cladding plates securing the explosive lenses when cracking was reported in the hinges of three plates (TNA: PRO AIR29/4110, Feb 1958, 2). In addition to the operational components, most items also had their equivalents as practice drill items. The RAF was responsible for moving weapons components between the production and assembly factories at Aldermaston and Burghfield, component suppliers, and the Supplementary Storage Areas (SSA) at Cottesmore, Honington, and Marham airfields. A typical convoy might comprise two Morris J6 vans equipped with radios, one of which was occupied by the convoy commander. It might also include up to three 6-wheel Hippo load carriers, a fire/

technical vehicle and motorcycle escorts (Allisstone 2005, 56, 60). For safety reasons the main section of the weapon and the core were moved separately (Allisstone 2005, 58).

New nuclear weapons

By October 1958, the unit was receiving components of 'new nuclear weapons' (TNA: PRO AIR29/4110, Oct 1958, 1). In December, they were busy developing gear for carrying the new weapons on the 10 ton convoy trucks, but they complained that they have received little information on the new weapons (TNA: PRO AIR29/4110, Dec 1958, 1). In the following month test equipment, stillages, and drill models for the new weapons were received and issued to units (TNA: PRO AIR29/4110, Jan 1959, 1). This raises the question which new nuclear weapons were being delivered to the site. In 1958, the RAF was issued with a handful of interim megaton weapons, known as *Violet Club*, (Wynn 1994, 248-51). Due to problems inherent in its design it was only assembled at RAF Wittering and stored at RAF Faldingworth, with the intention it would be carried at aircraft based at nearby RAF Scampton. Also around this time a smaller tactical weapon, *Red Beard*, was under development. Recent research suggests that the first units of this weapon were manufactured in 1959, but not accepted for service use until April 1960 (Moore 2004, 83-4). It is therefore more likely that Barnham was being readied to accept deliveries of *Yellow Sun* Mark I, which measured 21ft (6.4m) in length and weighed 7,000 lbs (3,175 kg), deliveries of which began in January 1959 (Moore 2004, 90).

A former Convoy Commander and Stock Control Officer, who arrived at Barnham in 1960, noted that in the early 1960s, that Barnham held *Blue Danube* and *Red Beard* atomic bombs. He also recalled that *Yellow Sun* was mainly dealt with No.92 MU Faldingworth (Allisstone 2005, 60).

Nuclear weapons, or their components, appear to have been stored on site until at least 1962. It was noted that the lightning conductors were last tested in April 1963 (Cocroft 1998, 4). By July 1963, measures were in hand to clear the site and to turn it over to RAF Honington to hold it care and maintenance (TNA: PRO AIR29/3274 Aug 63, 1).

SOURCES

Published Sources

ACTA Purcell Miller Tritton 2008 Conservation Management Plan typescript report

Allistone, M 2005 'Nuclear weapons and No.95 MU, RAF Barnham' *RAF Historical Journal* 35 54-61

Cocroft, W D 1998 *RAF Barnham, Suffolk* English Heritage typescript report

Cocroft, W D and Thomas, R J C 2003 *Cold War Building for nuclear confrontation 1946-1989* Swindon: English Heritage

Moore, R 2004 'The real meaning of words: a pedantic glossary of British nuclear weapons' *Prospero* 1 71-90

Wynn, H 1994 *RAF Nuclear Deterrent Forces* London: HMSO

The National Archives, Public Record Office, Kew

AIR 29/2523 No.94 MU, Barnham 1956-1960

AIR 29/3274 No.94 MU, Barnham 1961-1963

AIR 29/4157 No.94 Maintenance Unit RAF Barnham 1957-1959

AIR 29/4110 No.94 MU, Barnham 1957-1959

National Monuments Record, Air Photography, Swindon

I540/RAF/I778 frame 0128, 16 Jan 1956

Web sites

<http://nuclear-weapons.info/vw.htm#Violet%20Club> accessed 16 March 2011

APPENDIX I

Transcription of No 94 Maintenance Unit Operation Record Books relating to nuclear weapons storage at Barnham

AIR 29/2523 March 1956 Pg 2

'In accordance with a recent policy change, all small arms from sub-sites were withdrawn for central siting at S.S.S. Barnham, where they will be held and service by a Corporal Arat. Fitt (Gun) attached to the site for this purpose.'

AIR 29/4110 August 1957 Pg 1

'In June, 1954 the Special Storage Site of No.94 Maintenance Unit was formed at No.94 Maintenance Sub Unit Barnham under the Command of Wing Commander H.W.C. Harwood, O.B.E.

2. The function of the Special Storage Site (S.S.S.) was to act as a Maintenance Unit for the supply and storage of the Mark I Atomic bomb.
3. The Atomic bomb had been introduced into Bomber Command in September, 1953. All weapons had been transported by a flight established in No.42 Group at R.A.F. Kidlington [Oxford]. The personnel and vehicles of this flight were transferred to No.94 M.S.U. Barnham in June, 1954 and the transportation of weapon assemblies continued from the S.S.S.
4. The S.S.S. commenced to function as a Maintenance Unit in July, 1954. Weapon assemblies were received into storage from the Ministry of Supply and were withdrawn from Bomber Command Units and taken into storage.
5. The S.S.S. remained the main holding of the Mark I Atomic bomb until November, 1956 when the operational stations of Bomber Command were stocked to capacity.
6. Since that date the function of the Unit has been to maintain the Bomber Command stocks at operational strength and to maintain the remaining stocks at S.S.S.
7. On 21st March, 1955 Wing Commander S.L. Swain took over as site Commander from Wing Commander H.W.C. Harwood, O.B.E.
8. On 1st September, 1956 the S.S.S was given independence as a Station Commanding Unit under the nameplate No.95 Maintenance Unit.
9. Wing Commander G. Steele, M.B.E. assumed Command of No.95 M.U. in October, 1956. 10. On 1st May, 1957 the Unit was renamed No.94 Maintenance Unit for sentimental reasons as Barnham had been the original home of No.94 M.U. which had functioned at Barnham throughout World War 2.'

AIR 29/4110_14/08/1957 Pg 2

'Mr. Hunt Air Ministry (D.A.I.S.), Mr. Lee-Kemp and Mr. Atkinson of A.W.R.E. visited to investigate defect reports submitted for the firing cables of several centre sections. No definite results were obtained but some of the defects had occurred during handling and others required further investigation by D.I.E.M.E. and A.W.R.E.

Defect reports submitted on atomic weapon assemblies.

No. 30/57 – Cartridge HE No. 036 – Cartridge tube bulging.

31/57 – Firing Unit No. 932 – Power unit failure'

AIR 29/4110_August 1957 Pg 6

'The airmens Mess at S.S.S. has been extended and has improved out of all recognition.'

AIR 29/4110_05/09/1957 Pg 1

'Squadron Leader O.B. Parker (C.I.T.O.) attended a conference at Headquarters No.40 Group under the chairmanship of the Group Armament Officer to discuss the implementation of Air Ministry Policy for repair of assemblies of the 10,000 lbs M.C. bomb. It was agreed that the extra personnel required could be made available by transferring some of the men established for A.I.S. duties to Repair duties. This was possible owing to a reduction in the inspection commitment. The addition of one A.C. Painter and Doper was the only increase required. The additional technical facilities required were agreed in principle and a joint proposal was to be submitted by 93 M.S.U. Faldingworth and 94 M.U.'

AIR 29/4110_10/09/1957 Annual inspection

'Annual inspection by Air Officer Commanding No. 40 Group

10.15 Arrive S.S.

Inspect Picquet Post

Guardroom

Canteen Inlying Picquet Room

Ablutions and Showers

Airmens Dormitory

Dog Handlers Billet

Dog Food Meat Room

Dog Compound

Airmens Mess

P.B.X.

Admin. Block – Tea in C.O's Office'

AIR 29/4110 11/09/1957 Pg 1

'Mr. Hunt (A.M. D.A.I.S./I.S.5) and Mr. Hetherington (D.I.E.M.E.) visited to investigate a defect in Firing Installation Serial No. 324. The defect was confirmed as a defective trigation.'

AIR 29/4110 18/09/1957 Pg 2

'An inspection team under Flight Lieutenant W.F. Gerkin (Armament Officer) visited R.A.F. Honington to undertake A.I.S. Inspection of a complete 10,000 lbs. M.C. bomb concurrently with the Units 6 monthly inspection. Results and techniques were generally satisfactory. Pilot Officer A.B. Wensley accompanied the team under instruction.'

AIR 29/4110 18/09/1957 Pg 2

'Squadron Leader O.B. Parker (C.I.T.O.) visited Air Ministry D.A.I.S. to discuss the inspection implications of the introduction of future atomic weapons. Whilst initial inspection would be the responsibility of A.W.R.E. it was considered that responsibility would be delegated in some measure to D.A.I.S. and personnel should be trained in the techniques involved. It was agreed that one officer and one technician would be trained on the first course at Bomber Command Armament School or, if necessary detached to A.W.R.E. The siting of a new non-explosives inspection building was also discussed.'

AIR 29/4110 27/09/1957 Pg 2

'Mr. Armstrong, Air Ministry D.A.I.S./I.S.5 and Major F. Healey, Secretary of the Explosives Storage and Transport Committee visited in order to familiarize Major Healey with the storage and transportation problems of atomic weapons. E.S.T.C. had been asked to prepare regulations to cover these activities.'

AIR 29/4110 30/09/1957 Pg 3

'Difficulty had been experienced during the month in evolving a technique for measuring the dimensions of the exploder pockets of the centre section. The only reliable method was by projection and no tradesmen were very conversant with the principles involved.'

AIR 29/4110_30/09/1957 Pg 3

'The following defects on assemblies of the 10,000 lbs M.C. bomb were reported during the month.

D.R. No. 32 Cartridge, Drill No. 49 – Cartridge tube bulged at top after embodiment of Modification A.W. 187

D.R. No. 33 Cartridge, Drill No. 333 – As above

D.R. No. 34 Radar Fuze No. 319 – No stroke or transmitter pulse.'

AIR 29/4110_03/10/1957 Pg 1

'Mr. Hunt DAIS/155 and Mr. Heatherington of DIEME visited to investigate a defect in Firing Installation Serial No. 281. This was established as a defective trigatron which was replaced. A trigatron was also exchanged in Firing Installation Serial No. 324 and both items made serviceable.'

AIR 29/4110_23/10/1957 Pg 1

'Squadron Leader Fennal (Arms.Eng.5) Mr. Hunt (DAIS/155) Mr. Turner (D.I.Arm.) and Mr. Atkinson (AWRE) visited to examine centre section cable which had been damaged during a practice weapon assembly on 17th October. It was established that the E.N.T. plugs of the Drill exploder units were oversize and were damaging the mating cables. Plans were promulgated for measuring the E.N.T. plugs of all exploder units in service.'

AIR 29/4110_24/10/1957 Pg 1

'Mr. Hunt (DAIS/155) Mr. Burry (RAE Electrical Dept.) and Mr. J.P. Smith (AWRE) visited to discuss the Specification of unit 69 tests in the firing installation and to decide on the allocation of responsibility for development of Calibration techniques for the designer indicators and height Setting Control of the test Sets.'

AIR 29/4110 October 1957 Pg 1

'The following defect reports were rendered during October.

Serial No. 35 Centre Section Drill No. 502 Cracked pin Stripes

Serial No. 36 All Drill exploders. Oversize F.H.T. plugs.

Serial No. 37 Nose Junction box No. 181. Faulty Time switch

Serial No. 38 Nose Section No. 541. Colythene moulding on graze fuse connector

cracked

Serial No. 39-42 Radar Fuses. Various functional defects.'

AIR 29/4110 October 1957 Pg 2

'During October, progress has been made with the various works services for improvement of site security. The new sterile area fencing has been completed. Only the electric gate connections and the provision of a danger area control point remaining outstanding. The perimeter lighting has been completed except for testing, and should be working early in November.'

AIR 29/4110 30/10/1957 Pg 4

'The water on the Special Storage Site was found to be defective on test. The pump at the main bore was out of operation and the standby pump was used, this was not fitted with a chlorinator system. This is now being fitted and further tests will be carried out when completed. All water in the site must be boiled for at least ten minutes before being used for domestic purposes until such time as the tests show that the water is free from contamination.'

AIR 29/4110 12/11/1957 Pg 1

'Mr J.P. Smith AWRE visited to exchange a Bomb Control Unit in a Firing Installation Test Section and to discuss testing techniques.'

AIR 29/4110 17/11/1957 Pg 2

'Defect Reports – 10,000 lbs M.C. Bomb Serial No.

43 Fuze Airburst W/DR No. 353F – Abnormal waveform

44 Fuze Airburst W/SR No. 38F – Spurious Output

45 Centre Section Mark 3 No. 739 – Incorrectly assembled connector of Unit 185

46 Firing Installation No. 44F – Low E.H.T. on starboard power unit'

AIR 29/4110 17/11/1957 Pg 2

'The perimeter lighting has been in use for one month, and is satisfactory and a great help except in fog, when extra vigilance is necessary on the part of the security staff.'

AIR 29/4110 17/11/1957 Pg 2

'Dennert wiring has been completed outside the chain link fence, except for the outer boundary at 75 yards. Works Services to cut back the trees in the adjacent spinneys to

this distance are in hand.'

AIR 29/4110_17/11/1957 Pg 2

'Command Headquarters are investigating the acquisition of further land to complete the 75 yard Outer Sterile Area.'

AIR 29/4110_November 1957 Pg 4

'Work is now proceeding on the erection of a recreation room on the Special Storage Site. This amenity will be most welcome.'

AIR 29/4110_02/12/1957 Pg 1

'Col. Halliday, M.O.S. D.I.Arm., and Mr. Woods, Air Ministry D.A.I.S./I.S.5 visited to introduce Col. Halliday who had just taken up duties at P.I.O. at D.I.Arm. Headquarters with special responsibilities for inspection of atomic weapons.'

AIR 29/4110_09/12/1957 Pg 1

'Storage building D.D.59 authorised as an emergency explosives laboratory whilst the normal laboratory was being repainted. This was completed on 31st December, 1957.'

AIR 29/4110_31/12/1957 Pg 2'Gp. Dapt. Howell, Headquarters Bomber Command (C.Arm.O.) and Sqn. Ldr. Battley of R.A.F. Honington visited to survey facilities available at the Special Storage Site with a view to possible transfer of operational stocks from R.A.F. Honington.'

AIR 29/4110_31/12/1957 Pg 2

'The following defect reports were rendered during December:

47 – Firing Installation No. 32F – Stb. Unit 50 defective.

48 – Cartiridge H.E. No. 161 – Loose sleeve.

49 – Firing Installation No. 232 – Port unit 50 defective.'

AIR 29/4110_31/12/1957 Pg 2

'Perimeter lighting remains satisfactory. New searchlight towers and a more powerful type of searchlight are awaited. The matter is in the hands of A.M.W.D., who will place the new towers in recesses in the fencing.'

AIR 29/4110_31/12/1957 Pg 2

'A security check was carried out at 19.15 hours on 18th December, 1957, by a team from

H.A.P.&S.S., consisting of one officer and one N.C.O. The N.C.O. succeeded in climbing the outer fence, but fouled the alarm system in the sterile area and was arrested by a dog handler immediately. Full security precautions were put into operation by the alarm, and the officer surrounded without further attempt to enter being made.'

AIR 29/4110_02/01/1958 Pg 2

'Squadron Leader Parker (C.I.T.O.) and Squadron Leader Stoner (C.I.T.O designate) visited Air Ministry D.A.I.S./I.S.5. and Arm.Eng.5 to introduce Squadron Leader Stoner and to discuss inspection and servicing policy of atomic weapons generally.'

AIR 29/4110_09/01/1958 Pg 2

'Squadron Leader Pennal (A.M.Arm.Eng.5), Mr. Hunt (A.D., D.A.I.S./I.S.5), Mr. Turner (D.I.Arm.) and Mr. Atkinson (A.W.R.E.) visited to investigate defects in the E.H.T. plugs of exploder units. The investigations are still proceeding and all stocks remain suspect.'

AIR 29/4110_23/01/1958 Pg 2'Squadron Leader Parker (C.I.T.O.) attended conference at Air Ministry D.A.I.S./I.S.5. to discuss inspection policy for the new atomic weapons being introduced into service and for the re-distribution of weapons within the service.'

AIR 29/4110 January 1958 Pg 3

'The following defect reports on atomic weapons assemblies were raised during the month.

1/58 Fuze Airburst W/NR No. 864F – No breakthrough pulse.

2 Nose Junction Box No. 977R – Fails interchangeability test.

3 Exploder units-drill – All sets have defective E.H.T. plugs.

4 Exploder units – All sets have suspect or defective E.H.T. plugs.

5 Centre Section No. 417 – Leaking Air bag.'

AIR 29/4110 January 1958 Pg 3

'Work has commenced on the new check post at the entry to the Special Storage Site.'

AIR 29/4110 January 1958 Pg 3

'The Unit has been visited by Wing Commander G.L. Smith, A.P.M. Security at H.Q.P.&S. S. as a result of the success of the trip flare systems adopted by this Unit during December's security check.'

AIR 29/4110 February 1958 Pg 1

'Following the decisions made at the conference held on the 13th February, 1958 building D.D.59 was selected to store Bomber Command weapons.

Building D.D.59 was completely cleared of all functional stock, well cleaned and equipped with barrack equipment sufficient for personnel detailed by R.A.F. Honington.'

AIR 29/4110 13/02/1958 Pg 1-2

'A conference was held with H.Q.B.C. representatives to discuss the additional storage space which would be required by Bomber Command to store 10,000 lbs. M.C. Bombs deployed from Honnington. It was agreed that storage for the weapons would be made available in one D.D. buildings at Barnham which would be under the direct control of the C.E.O., Barnham. Servicing facilities for the six monthly inspection of Bomber Command weapons could be accomplished in the C.D. building at Barnham under the supervision of the C.I.T.O. The servicing party would be detached from Honington to work under the C.I.T.O, Barnham. Command and control of the Bomber Command detachment would come under O.C., No. 94 M.U.'

AIR 29/4110 19/02/1958 Pg 2

'A Siting Board was held to select a suitable site for the new A.I.S. and Servicing Section.'

AIR 29/4110 February 1958 Pg 2

'The following defect reports in atomic weapon assemblies were raised during the month:-

DR. No. BAR/6/58 TCJ.776 Leading tube will not accept gauge.

DR. No. BAR/7/58 W/CX.986 Crack in hinge of cladding plates.

DR. No. BAR/8/58 W/CX.562 Crack in hinge of cladding plates.

DR. No. BAR/9/58 W/CX.460 Crack in hinge of cladding plates.'

AIR 29/4110 February 1958 Pg 2

'Arrangements are in hadn [sic] to complete tree and shrub clearance in the sterile area.'

AIR 29/4110 February 1958 Pg 5

'The decision to handover one D.D. building to Bomber Command for the storage of their weapons presented some local problems particularly in the servicing field.'

AIR 29/4110 March 1958 Pg 1

'Revised orders covering all aspects of convey control, with particular emphasis on

radiation hazard, were published and copies were sent to Headquarters No. 40 Group.'

AIR 29/4110 March 1958 Pg 1

'A Leyland 10 ton truck was returned from No. 32 Maintenance Unit fitted with the proposed method of securing centre and nose sections.'

AIR 29/4110 March 1958 Pg 1 'Building D.D.59 with twenty A.D. buildings were handed over on R.A.F. Form 2, to Bomber Command representatives.'

AIR 29/4110 March 1958 Pg 1

'Operational weapons for R.A.F. Marham were exchanged with the drill weapons and stored in building D.D.59.'

AIR 29/4110 March 1958 Pg 1

'Work on the Unit included loading and towing trials on the 10 ton Leyland truck with improved lashings for 10,000 lb.M.C. Bomb components – improvements developed by No. 32 Maintenance Unit.'

AIR 29/4110 March 1958 Pg 1

'Trials were conducted with assembled weapons to determine any difficulties which may be encountered in loading, transportation and positioning weapons in the storage and technical building allocated to Bomber Command.'

AIR 29/4110 10/03/1958 Pg 2

'Wing Commander Dawson – C.Arm.O. – Maintenance Command visited to discuss progress on transfer of storage and technical facilities to Bomber Command Units.'

AIR 29/4110 20/03/1958 Pg 2

'Mr. Burnside and Mr. Johnston C.I.N.O. visited regarding storage and technical facilities for 10,000 lb. M.C. Bomb.'

AIR 29/4110 March 1958 Pg 2

'The following defect reports in atomic weapon assemblies were raised during the month:-

BAR/10/58 W/F 481 Damaged threads on sleeves BAR/S.83/3/AIS

BAR/11/58 W/F 028 Corrosion on uranium slug BAR/S.83/3/AIS

BAR/13/58 W/ER 47F Spurious Output BAR/S.83/9/AIS

BAR/12/58 W/ER 617R Receiver Failure BAR/S.83/9/AIS

BAR/14/58 W/DR 135F Spurious Count Excessive BAR/S.83/9/AIS

BAR/15/58 W/ER 161F Air leak through core BAR/S.83/9/AIS

BAR/16/58 G.A. & 873F Release Unit – omission of slot AR/S.83/2/AIS'

AIR 29/4110 March 1958 Pg 3

'On the night of 31st March, 1958 an attempt was made to enter the S.S.A. by a security team from H.Q.P.&S.S., but they were detected whilst still outside the site and were captured on the outside of the chain link fence.'

AIR 29/4110 April 1958 Pg 1

'The arrangements made with the Bomber Command detachment are working well and no obstacles have been, or are expected to be encountered.'

AIR 29/4110 April 1958 Pg 1

'To relieve the storage problem in D.D. 60 and 61 several items of non-x, and unclassified security, category, have been transferred to the non-x store at Little Heath.'

AIR 29/4110 April 1958 Pg 1

'During a visit by D.D.E.3 comment was made on the fact that all the Unit holdings of the major components for the Bomb 10,000 lb. M.C. were stored in one D.D. building. Action has been taken to divide the stores between the two D.D. buildings.'

AIR 29/4110 April 1958 Pg 1

'Work on the Unit included the use of the C.D. buildings for the inspection and assembly of 10,000 lb. M.C. Bombs for Bomber Command. The work was successfully accomplished without interruption of the normal Unit inspections. Unit servicing and inspection personnel were able to obtain valuable training in assembly of 10,000 lb. Bomb.'

AIR 29/4110 15/04/1958 Pg 2

'Sqn. Ldr. Pennal – Air Ministry Arm.Eng.5 and Sqn. Ldr. Gowing – C.Arms.O. Headquarters No. 40 Group, visited to discuss servicing problems associated with electronic components.' AIR 29/4110 17/04/1958 Pg 2

'Mr. Hunt – Air Ministry D.A.I.S., visited in connection with electronics component inspection.'

AIR 29/4110_28/04/1958 Pg 2

'Wg. Cdr. Dawson – C.Arm.O. Maintenance Command and Sqn. Ldr. Gowing – C.Arm. O. Headquarters No. 40 Group and Mr. Armstrong – Air Ministry D.A.I.S., visited in connection with the siting of the A.I.S. and Servicing workshop for the Special Storage Site. The findings of the original siting board held at Barnham on 28th February, 1958 were agreed'

AIR 29/4110_April 1958 Pg 2

'Work is progressing to clear a 75 yard sterile area outside the chain link fence. This should be complete before the end of May, when the area will be enclosed with Dannert wire.'

AIR 29/4110_May 1958 Pg 1

'Movement of stock continued in accordance with a directive from Air Ministry (D.D.E.3) that stock is to be equally divided between storage sheds.'

AIR 29/4110_May 1958 Pg 1

'The A.W.R.E. Nuclear Safety Panel visited the Unit to discuss various aspects of safety and storage of existing and future weapons. The Panel witnessed a demonstration of the Unit Convoy emergency drill for vehicles carrying R.A. materials.'

AIR 29/4110_21/05/1958 Pg 1

'C.I.T.O. attended a conference at Headquarters, Maintenance Command, to discuss the new A.I.S. and Servicing building in the S.S. Site. Plans submitted by No. 92 Maintenance Unit were agreed.'

AIR 29/4110_21/05/1958 Pg 1

'C.I.T.O. attended a conference at Air Ministry (D.A.I.S.) to discuss Regulations for Transportation and Storage of Nuclear Weapons. No. 94 Maintenance Unit was charged with the drafting of certain leaflets for inclusion in this new publication.'

AIR 29/4110_20/05/1958 Pg 2

'Movement of Bomber Command stocks into D.D.59 was completed. Unit personnel assisted B.C. personnel in transportation and loading operations.'

AIR 29/4110_May 1958 Pg 2

'Routine servicing and inspection on the S.S. Site continued through the month including:-

Special Inspection – 32

Unit Return Inspection – 29

3 Monthly Inspection – 4

Receipt Inspection – 22

Monthly Inspection – 8

6 Monthly Inspection – 8'

AIR 29/4110 May 1958 Pg 2

'Work to increase the outer sterile area is almost complete, and levelling and re-wiring is due to start in the near future, giving an outer sterile area of 75 yards width.'

AIR 29/4110 May 1958 Pg 2

'The recreation room at the S.S. Site was handed over by A.M.W.D. on 23rd April, 1958. New games equipment and materials for the hobbies section have been demanded and the building will be opened for use in early June.'

AIR 29/4110 June 1958 Pg 1

'In accordance with instructions received from Headquarters No. 40 Group (Ops.3) the major components of the bomb 10,000 M.C. were stored in equal numbers, in DD 60 and DD 61 and not all stored in DD 60 as was previously the case.'

AIR 29/4110 11/06/1958 Pg 1 'C.I.T.O. attended a conference at Air ministry D.A.I.S. The subject was the Inspection of Test and Monitoring Equipment.'

AIR 29/4110 12/06/1958 Pg 1

'C.I.T.O. attended a meeting at Headquarters No. 40 Group. The subject being the monthly return on weapon serviceability.'

AIR 29/4110 June 1958 Pg 1

'Routine servicing and inspection on the S.S. Site continued throughout the month including:-

Complete Weapons

6 Monthly – 2) Bomber Command

3 Monthly – 5) Commitment

Components

Special 14

Receipt 20

Unit Returns 12

Monthly 6

6 Monthly 3'

AIR 29/4110 June 1958 Pg 2

'There have been no security breaches during the month under review, but one airman (S.A.C. Randall) of the M.T. Section has been posted, as he was considered to be a security risk.'

AIR 29/4110 June 1958 Pg 3

'The Fire Section should be moved from Little Heath to building LD 68 in the Special Storage Area. Pending completion of Works Services to this building the fire section will be accommodated in building GD 66.'

AIR 29/4110 July 1958 Pg 1 'The second storage building D.D.60 and a further 16 A.D. buildings were handed over to headquarters Bomber Command on the 14th July 1958. Stocks are being palletised to make the maximum use of the remaining storage building.'

AIR 29/4110 July 1958 Pg 1

'During the period 14th to 31st July, 1958, the Unit gave technical assistance to Bomber Command including testing and assembly and the loading and disposal of weapons.'

AIR 29/4110 July 1958 Pg 1-2

'Routine servicing and inspection on the S.S. Site continued throughout the month including:-

Complete weapons

Complete assemblies Qty 14) Bomber

3 Monthly Inspections Qty 4) Command

6 Monthly Inspections Qty 4) Commitments

Components

Special Inspections 34

Receipt Inspections 48

Unit Returns 23

Monthly Inspections 20

6 Monthly Inspections 25

Annual Inspections 1'

AIR 29/4110 August 1958 Pg 1

'The D.D. Buildings have now been equipped with electric hoists which are operating satisfactorily. Functional stock has now been stored in pallets.'

AIR 29/4110 August 1958 Pg 1

'Trials have continued with practice loadings of weapons into Bomber Command specialist vehicles. A power operated, 5 ton hoist has now been installed in the C.D. building.'

AIR 29/4110 August 1958 Pg 2-3

'A breach of security occurred on 8th August. This has been dealt with by the Commanding Officer. This unit was visited by Security team from H.Q., P.&S.S. (U.K.) on 30th August. Two trip flares were ignited whilst entry was being gained and the intruder was apprehended immediately.'

AIR 29/4110 11/09/1958 Programme

'Programme for the inspection of No. 94 Maintenance Unit by the Air Officer Commanding No. 40 Group on 10th September, 1958

... 09.55 hours Preliminary discussion with the Commanding Officer in the Commanding Officer's office.

10.15 hours Inspection of the Special Storage Site office block.

10.30 hours Inspection of the Special Storage Area:-

(a) D.D. buildings;

(b) C.D. building,

(c) E.D. building;

(d) Selected A.D and B.D. buildings;

(e) N.D. building;

11.00 hours Inspection of the Special Storage Site, Fire Section.

11.10 hours Inspection of the P.B.X.

11.15 hours Inspection of the Special Storage Site, cookhouse, dining hall and recreation room.

11.30 hours Inspection of the Police Dog Section.

11.45 hours Inspection of the Special Storage Site, domestic accommodation and canteens.

11.45 hours Inspection of the Guardroom and Picquet Post'

AIR 29/4110 October 1958 Pg 1

'Some components of the new nuclear weapons have now been received and transported by the Unit.'

AIR 29/4110 November 1958 Pg 1

'Work has commenced in preparation for cable changes on stock and Bomber Command weapons and the incorporation of Mod. A.W.277.'

AIR 29/4110 November 1958 Pg 3

'The Unit was visited on the evening of 12th November, 1958 by the Security Checking team from H.Q.P.&S.S. (U.K.), but the team were detected and apprehended before reaching the outer perimeter fence of the Special Storage Area.'

AIR 29/4110 December 1958 Pg 1

'Limited information has now been received regarding the new weapons now being introduced into the Service.'

AIR 29/4110 December 1958 Pg 1

'Work has commenced on developing suitable securing gear for use in carrying the new weapon in their cases on the 10 ton convoy vehicles.'

AIR 29/4110 18/12/1958 Pg 3

'At 22.40 hours the Unit was visited by the Security Team from H.Q.P.&S.S. (U.K.).

The team was detected whilst outside the chain link fence. One member was apprehended and the remainder surrendered to the picquet post after a few minutes.'

AIR 29/4110 January 1959 Pg 1

'Small quantities of test equipment, stillages and drill models of the new type weapon have been received from the Ministry of Supply during the month and issued to consumer units.'

AIR 29/4110 February 1959 Pg 1

'Stock in the D.D. building had to be moved to one side of the floor to allow the installation of a tannoy system.'

AIR 29/4110 April 1959 Pg 2

'A team of I.E.M.E. representatives visited the Unit to investigate defects on air-burst fuzes and to calibrate echo boxes.'

AIR 29/4110 09/04/1959 Pg 2

'The Unit received a visit from the Headquarters Provost and Security Service security checking team.

The first member of the team was detected by a Dog handler in the area outside the Unit, and the remaining two members were found by the dog handlers within ten minutes.'

AIR 29/4157 03/06/1959 Pg 2

'Headquarters Provost and Security Services Security Team paid one of their surprise visits. No entry was gained and the team were all captured outside the outer Dannert wire.'

AIR 29/2523 16/08/1959 Pg 2

'In the early hours of the morning, the Unit was visited by the Security Team from Headquarters Provost and Security Services.

The Team, consisting of two S.N.C.O's was observed outside the S.S.S., and an alarm was raised, resulting in one member of the team being caught in the sterile area and the other outside the S.S.S.'

AIR 29/2523 04/12/1959 Pg 2

'The H.Q. P. & S.S. (UK) security team paid a routine visit to the Station to test security. The team disclosed their presence in the vicinity by exposing their motor car to view

and were actually detected on the approach road to the Storage Site, at 02.25 hours. It is worthy of note that undetected entry to the Storage Site at this Station has not been made by the Security team since August, 1957.'

AIR 29/2523 12/05/1960 Pg 1

'Air Marshall Sir Hugh A Constantine, K.B.K., G.B., D.S.O., Air Officer Commanding-in-Chief Flying Training Command, visited the Special Storage Site.'

AIR 29/2523 26/05/1960 Pg 2

'A Security team from Headquarters Provost and Security Services made one of their routine visits to check the physical security of the unit. As on the last exercise, the team were able to gain access only to the approach road to the storage site before being apprehended by the security guards. The alertness of guards once again proves that penetration to the storage site is very difficult to achieve without being discovered.'

AIR 29/2523 13/09/1960 Pg 2

'The unit was visited by two S.N.C.O's from H.Q. P. & S.S. to carry out a new type of security check on the Special Storage Site. Dressed in civilian clothes they were permitted to pass through security control with bogus papers but thereafter they were unable to obtain any classified information or to gain access to any restricted buildings. They were under constant surveillance by security guards throughout the exercise and not one instance was revealed of any breach in security – the Special Storage Site remains invulnerable from any form of security check.'

AIR 29/3274 09/12/1961 Pg 1-2

1. As the result of information received that local 'Ban the Bomb' demonstration may be held, the instructions contained in Barnham Operation Order No. 1/61 were brought into force.

2. No incidents occurred, but the whole operation served as a very useful administrative exercise and has proved that existing plans for dealing with such a contingency are adequate.'

AIR 29/3274 12/04/1962 Pg 1

'At approximately 1300 hours an attempt to gain access to special storage buildings was made by three members of a special security team. One member managed to get into the danger area but was unable to enter any building before apprehension. The other two members of the team were apprehended before reaching the danger area.

This is the first time a security team has gained even this limited success on this station, and it is significant that no dog patrols were on duty at this time.'

AIR 29/3274 July 1963 Pg 1'(1)

Equipment. The transfer of all functional and domestic equipment was completed by 31st July.

(2) A.M.W.D. Equipment. All A.M.W.D. Equipment, including Security Alarm System remains in situ.

(3) Security Grading. Class 'A' Security Grading (A.M.C.O. 11/63) withdrawn.

(4) Clearance of Buildings. All building and site, declared free from explosive and radioactive contamination, handed over to Administrative Site for ultimate disposal to RAF Honington under care and maintenance.

(5) Overflight Restriction. Overflight restriction for aircraft requested to be withdrawn wef. 29th July 1963.'

AIR 29/3274 August 1963 Pg 1

'All buildings, except one which is being used for temporary storage of barrack furniture, are now vacant and ready for handover.'



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