

A large, bold, black 'X' shape is centered on a light gray background. The 'X' is formed by two thick diagonal lines that intersect at the center. The text 'PROJECT CLEANSWEEP' is positioned horizontally across the upper part of the 'X', centered between the two diagonal arms.

PROJECT CLEANSWEEP

PROJECT CLEANSWEEP

DARA MCGRATH

Beyond the Post-Military Landscape of the United Kingdom













Ministry
of Defence

Secretariat
Defence Infrastructure Organisation
Kingston Road
Sutton Coldfield
B75 7RL

E-mail [redacted]
www.gov.uk/DIO

13 August 2015

Ref. FOI2015/06564

Dear

Request for Information: Project Cleansweep Completion Report

Thank you for your enquiry dated 21 July 2015. This has been dealt with under the Freedom of Information (FOI) Act 2000.

You asked:

"Would you be able to provide us with a copy of the Project Cleansweep Completion Report?"

[redacted]

including:

- [redacted]
- [redacted]

All of the information in scope of your request falls entirely within the scope of qualified exemptions provided for at Sections 22(1) (Intended for future publication) of the FOIA and has been withheld.

Section 22 (1) is a qualified exemption and is subject to a public interest testing which means that the information requested can only be withheld if the public interest in doing so outweighs the public interest in disclosure.

The outcome of the public interest test clarifies that the public interest in withholding the information outweighs the public interest in disclosing the information, as it is important for the public authority to place information in the public domain proactively and to avoid damaging the reputation of the government bodies.

[redacted]

Yours sincerely,

DIO Secretariat





[Previous Page](#)

SITE #21 NANCEKUKU, CORNWALL

RHYDYMWYN

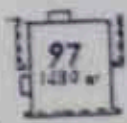
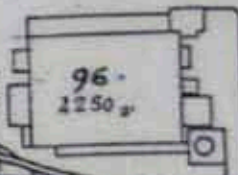
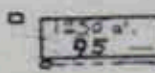
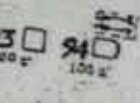




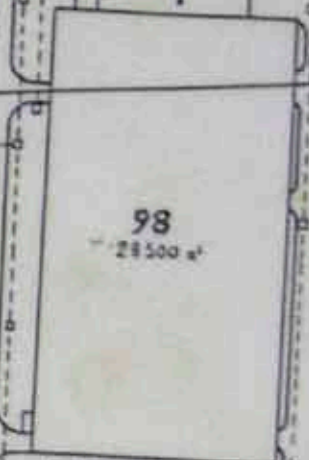
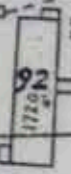
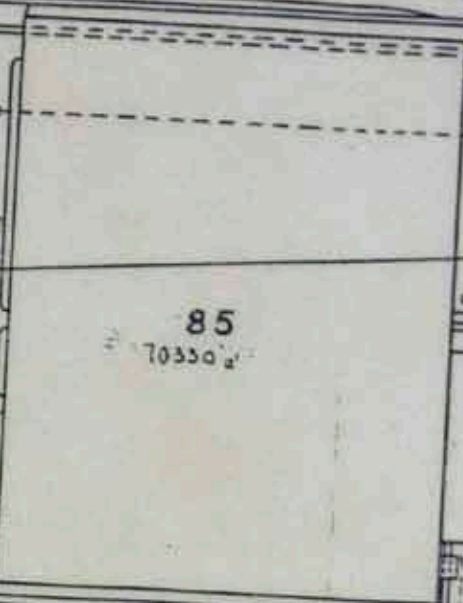
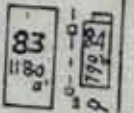




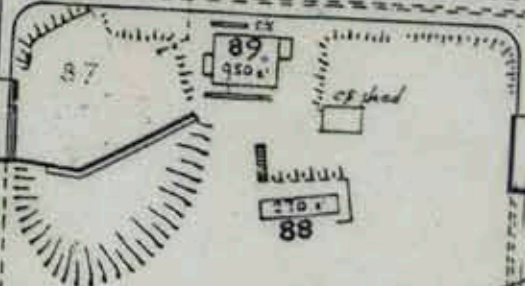
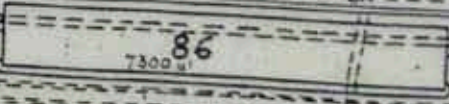
FENCE



RAN 830



SHEET 15



TUNNEL ENTRANCE

SHEET 24

NEED
CE

UNDERGROUND CULVERT



LOOKOUT TOWER

FENCE









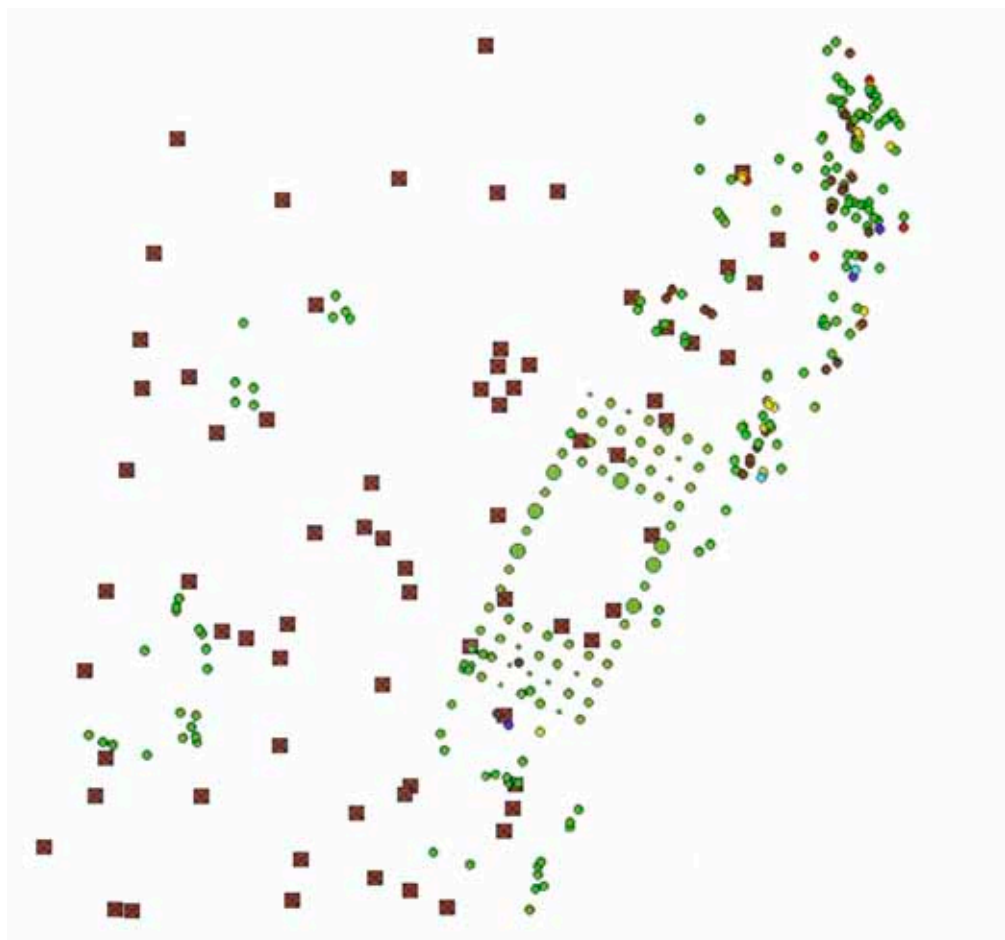














Valley Site, Rhydymwyn. Analytical Data

Pit:122
Grid Ref:E16

Reason for taking the Sample and Description of Pit
Samples dredged from toxic sump.

Samples and Descriptions

122-01 Wet. Dark brown sludge.
122-02 Wet. Dark brown sludge.
122-03 Wet. Dark brown sludge.
122-04 Wet. Dark brown sludge.

Summary of Analysis for Mustard Gas (mg/kg Sample filtered and air dried)

	"E"	"T"	Comments
122-01	NA	NA	
122-02	<5	<10	Number of unidentified organosulphur components.
122-03	<5	<10	Similar to 122-02.
122-04	<5	<10	Similar to 122-02.

Summary of Analysis for Total Metals and pH (mg/kg Air dried weight)

As	Cd	Cr	Cu	Mn	Bi	Pb	Zn	pH
----	----	----	----	----	----	----	----	----

Comments

No evidence for contamination with active mustard. However, the organosulphur compounds detected in these samples have similar retention times to some of those detected in samples from the trial pits - particularly the more contaminated ones. This suggests these compounds are remnants of the mustard gas manufacturing process.

SITE #11

RHYDYMWYN, FLINTSHIRE

Also known as the Valley Site, the Rhydymwyn facility is located approximately four miles from Mold in Flintshire in North Wales. Between 1939 and 1943, it was the most secret facility under military control on the British mainland. Rhydymwyn was the major centre for the manufacture, assembly and storage of bulk chemical weapons. From 1940 - 1959 mustard gas, along with its poorer cousin 'Pyro', were housed in vast and sprawling aboveground and underground storage facilities and satellite sites in the surrounding countryside.

At its height in early 1943, 2,200 people were working on the 87-acre site. Building No. 45 housed parts of the atomic bomb experiments codenamed 'Tube Alloys', a clandestine research and development programme to develop nuclear weapons during the Second World War. Research and tests were carried out by British scientists whose work was later instrumental in the Manhattan Project. After the war some of the buildings were destroyed due to them being highly contaminated and dangerous. The remaining site and tunnels were subsequently used as a military 'buffer depot' up until the early 1990's. At one stage it was planned to house the Bank of England's gold there under the codename 'Project Mallard'.

The site has numerous contaminated areas within its boundary and is under the management of the Department of the Environment, Food and Rural Affairs. Today it is the location of the Rhydymwyn Valley Historical Society that strives to promote the cultural importance of the site and the North East Wales Wildlife group (NEW) that encourages and manages the flora and fauna that has thrived there in recent years.

SITE OPENED : 1942

SITE CLOSED : 1960







SALISBURY PLAIN



Scale: One Inch = One Statute Mile

Legend and technical information including symbols for roads, rivers, and terrain, along with a scale bar and other map details.

HARPUR HILL







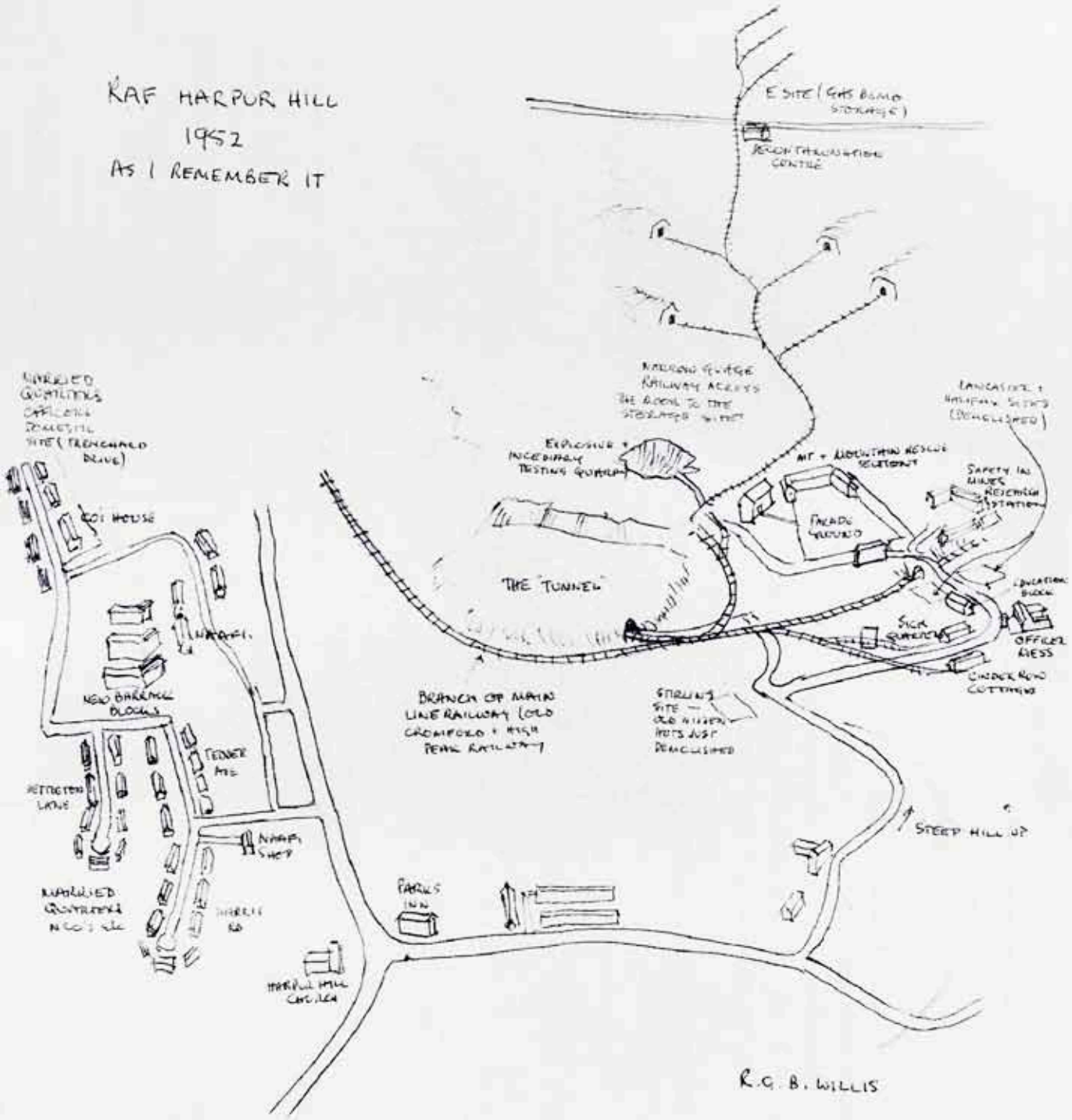








RAF HARPOR HILL
 1952
 AS I REMEMBER IT



R.C.B. WILLIS





















Alcontrol Laboratories

Unit 7, Park Road, Fingona Park, Drogheda, Co. Dublin, D15 2E2

High Peak, Slough, Co. Wick
Town Hall
Buston
Debridez
E17 6E2

CERTIFICATE OF ANALYSIS

Date: 15 July 2010
Customer: HUNTER WALKER LTD
Sample Description Group: 3009
Your Reference: 100100-02
Location: WOFFEN GRASSY
Result No.: 22424

We received 1 sample on Friday July 02, 2010 and 1 of these samples were analysed on 14 July 2010. 100 samples on Thursday July 15, 2010. Accredited laboratory tests are shown in table 1. All other data, interpretations and on-site data reported herein are outside the scope of ISO 17025 accreditation.

If you wish this report to be incorporated into client reports, it must be used only in conjunction with the data it refers to.

A chemical testing (further) confirmation is performed as a result of standard procedures.

Additional testing - we have not accredited for asbestos, as we are not a specialist in asbestos. Accredited to identify asbestos fibres in bulk material (ACM).

Approved By:

W. Spinton

W. Spinton
Operations Director - Land Use & Ireland



Alcontrol Laboratories is a trading division of Alcontrol UK Limited
Registered Office: Unit 7 & 8, Park Road Business Park, Monaghan, Co. Monaghan, Ireland. Tel: +353 47 93 22011

SITE #4

HARPUR HILL, DERBYSHIRE

Former Maintenance Unit (M.U.) No.28 is located 6 miles south east of Buxton in Derbyshire. In 1940 this was the biggest chemical weapons reception and storage depot (phosgene and mustard gas) in the United Kingdom. At its busiest, it is estimated that there was up to 46,000 individual chemical weapon bombs stored on the site of approx 500 acres and on the surrounding country lanes.

After the war, wholesale burning of munitions, including chemical weapons, was undertaken by 'X' Stations, the RAF's division that decommissioned captured chemical weapons. Proving unreliable, as it rendered a lot of the surrounding landscape void of vegetation, all ordnance was then shipped to the Beaufort Dyke located between Northern Ireland and the Scottish coast and dumped at sea. Making it the biggest marine munitions dumping site in the world.

The site closed as a military facility in 1960. Since then the underground storage tunnels have been used to store cheese, bonded storage of alcohol and the growing of mushrooms. Also located on the former site is the national Health and Safety Laboratory (HSL) that conducts experiments into accidents and incidents of national importance. There is also a toxic quarry lake that locals know as 'The Blue Lagoon', which the local council has identified with a ph level of 11.

SITE OPENED : 1939

SITE CLOSED : 1960











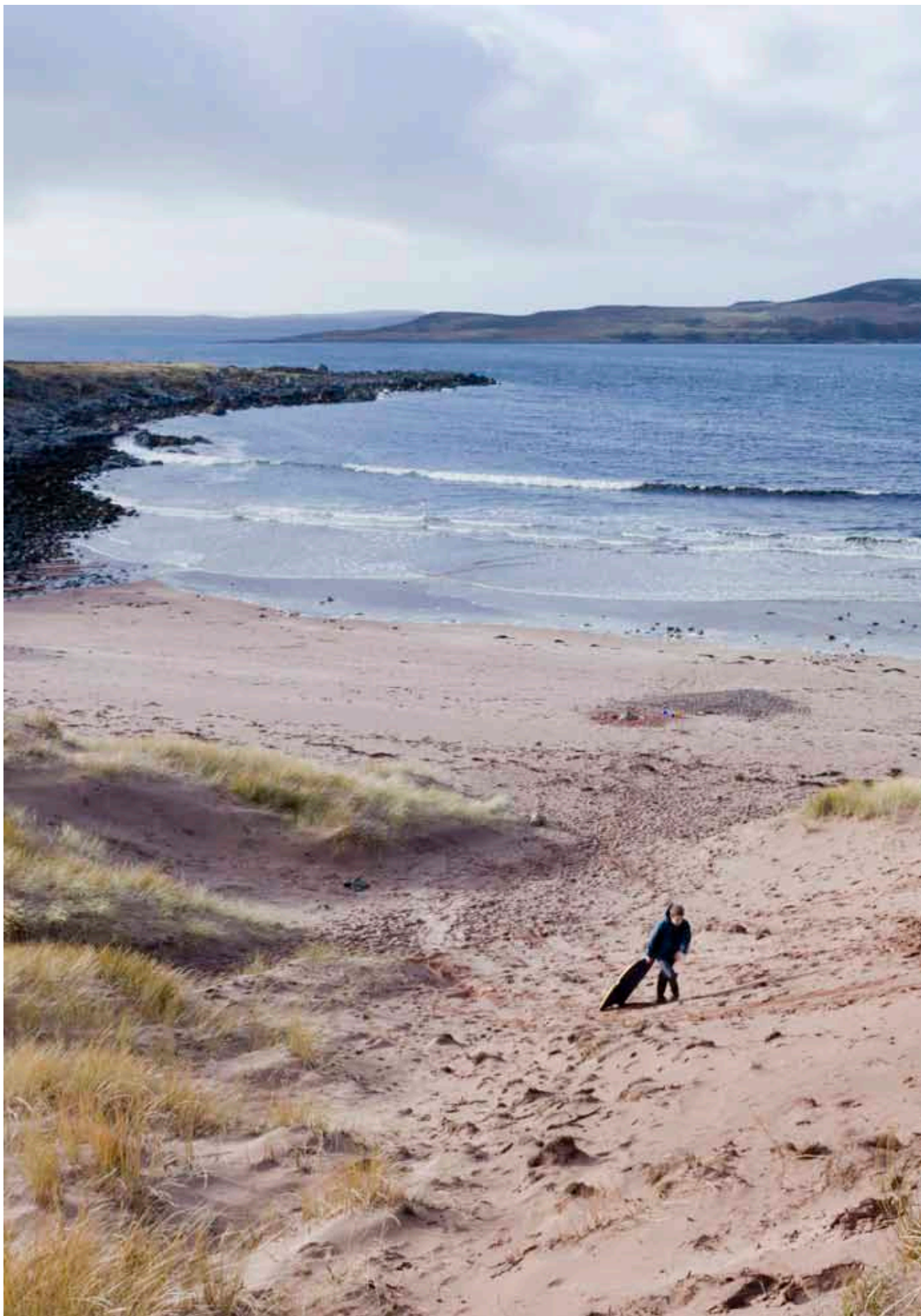
[Previous Page](#)

SITE #27 KIMBOLTON, CAMBRIDGESHIRE

GRUINARD ISLAND



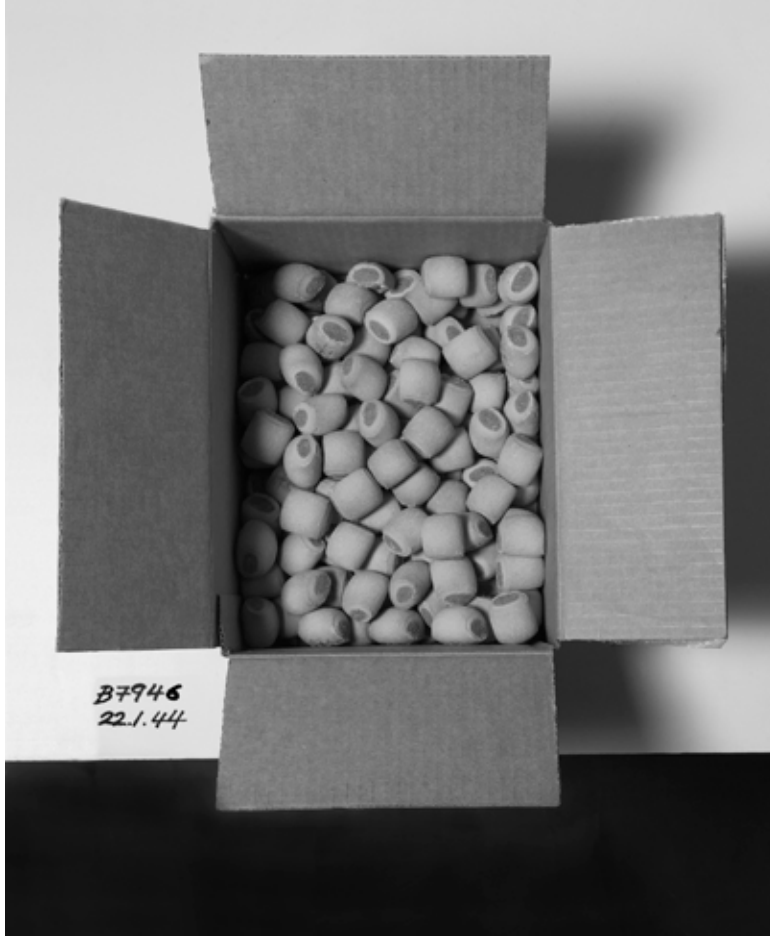
GRUINARD BAY, WESTER ROSS























SITE #14

GRUINARD ISLAND, SCOTLAND

Located 1 mile off Gruinard Bay, between Gairloch and Ullapool on northwestern coast of Scotland, Gruinard Island was the site of a notorious biological warfare test by British military scientists from Porton Down in 1942. Eighty sheep were taken to the island and bombs filled with anthrax spores were exploded close to where selected groups were tethered. All were killed, either during or after the testing.

For many years it was judged too hazardous for the public to access to the island. In 1981 a group of activists called Operation Dark Harvest, an affiliate of the Scottish National Liberation Army, left a sealed package of a soil sample from the island outside the military research facility at Porton Down; tests revealed that it contained anthrax bacilli. Dark Harvest wanted to draw attention to the contamination of the island and the inaction of the authorities to deal with the situation. A few days later another sealed package of the soil was left in Blackpool, where the ruling Conservative Party was holding its annual conference.

Starting in 1986 a determined effort was made to decontaminate the island, with 280 tonnes of formaldehyde solution diluted in seawater being sprayed over all 196 hectares of the island and the worst contaminated topsoil around the dispersal site being removed. On 24 April 1990, after 48 years of quarantine and 4 years after the solution being applied, it was declared safe for the public. Today the island remains uninhabited and is widely known as Anthrax Island.

SITE OPENED : 1942
SITE CLOSED : 1942









[Previous Page](#)

SITE #35 STORNOWAY, ISLE OF LEWIS, OUTER HEBRIDES

LYME BAY

SECRET Reference CS/7/3

copy 1 of 6

SECRET covering TOP SECRET

S of S

Chemical and Biological Warfare
Field Trials

At the Army Council meeting on 9th May, 1963, when the Annual Report of your Scientific Advisory Council was discussed, you asked to be kept informed of all biological trials undertaken outside the confines of W.D. establishments.

The attached note, which has been prepared in my office, contains details of such trials which C.D. I.S. and M.R.E. are currently carrying out and is forwarded for your information.

I am convinced of the vital need for these trials which impose no hazard to the public, although clearly, knowledge of them by unauthorised persons could be politically embarrassing.

30th May, 1963.

W.C.
Chief Scientist

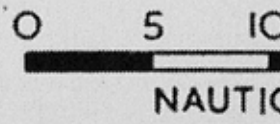
Copy to: P.D.S.
M.G.O.

SECRET

3/33







- FIELD TRIALS
- (17) —

TAUNTON

YE

SECRET

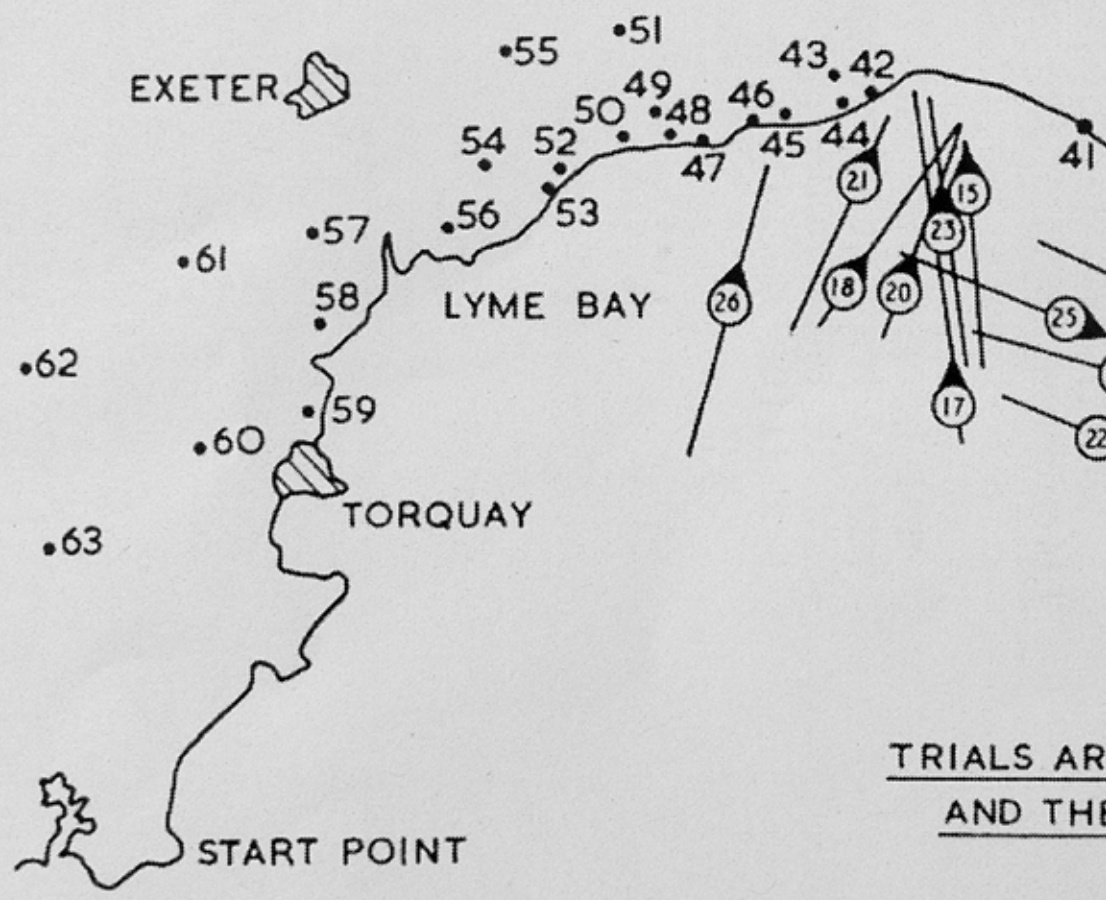



FIGURE 1.

TRIALS ARE
AND THE

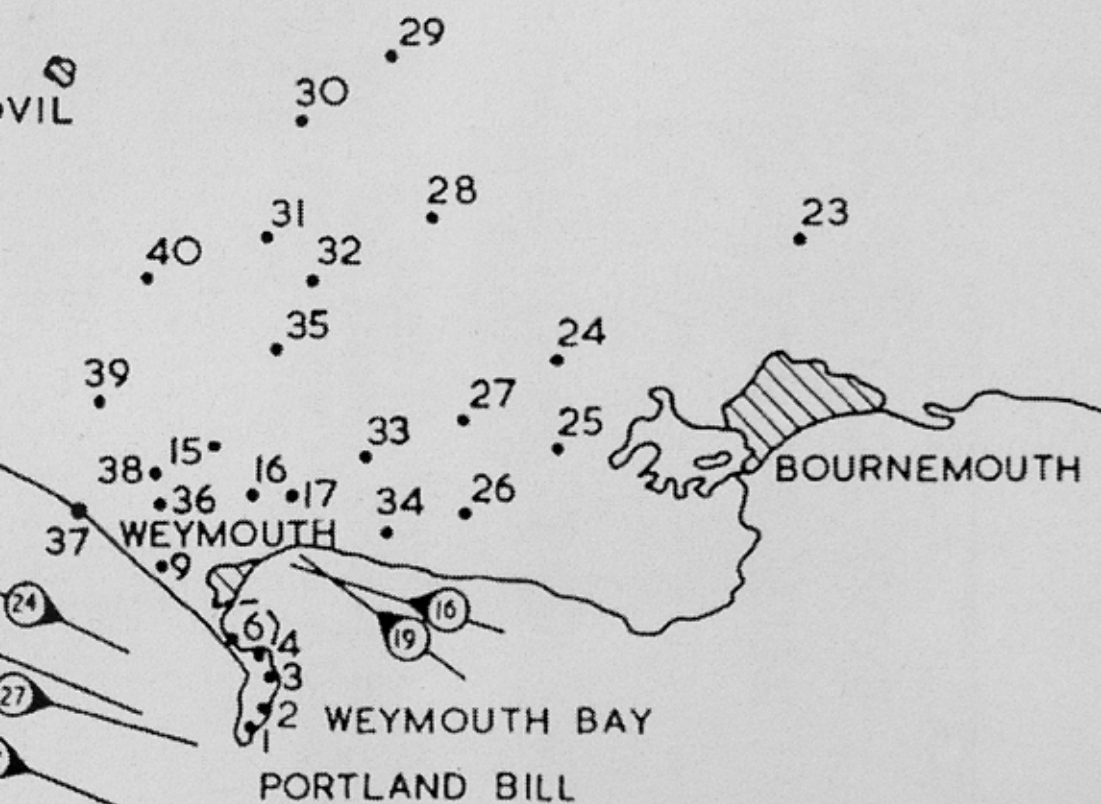
0 15 20 25

NAUTICAL MILES

SAMPLING SITE.

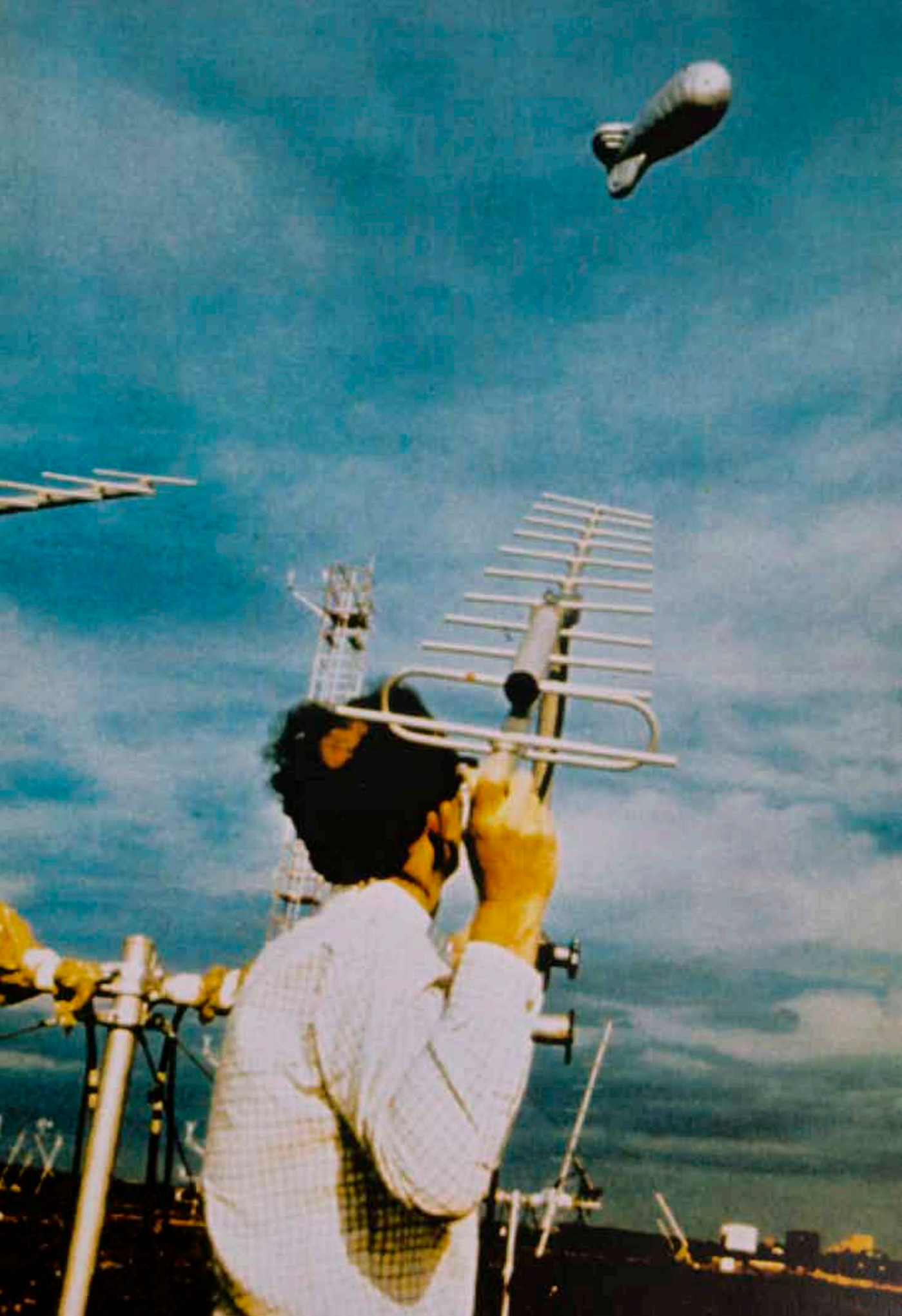
SALISBURY 

SHIP'S TRACK, DIRECTION & SERIAL NUMBER.



SEA SHOWING THE SHIP'S TRACKS
THE SAMPLING POSITIONS USED.







**MICROBIOLOGICAL
RESEARCH ESTABLISHMENT**

PORTON DOWN, SALISBURY, WILTS. SP4 0JG

Telephone: Idmiston 391

IN THE EVENT OF ILLNESS

1. You must notify the Safety Officer or the Senior Administrative Officer (telephone - Idmiston 391) as soon as possible, giving the fullest possible information.

2. We understand from you that your doctor is:

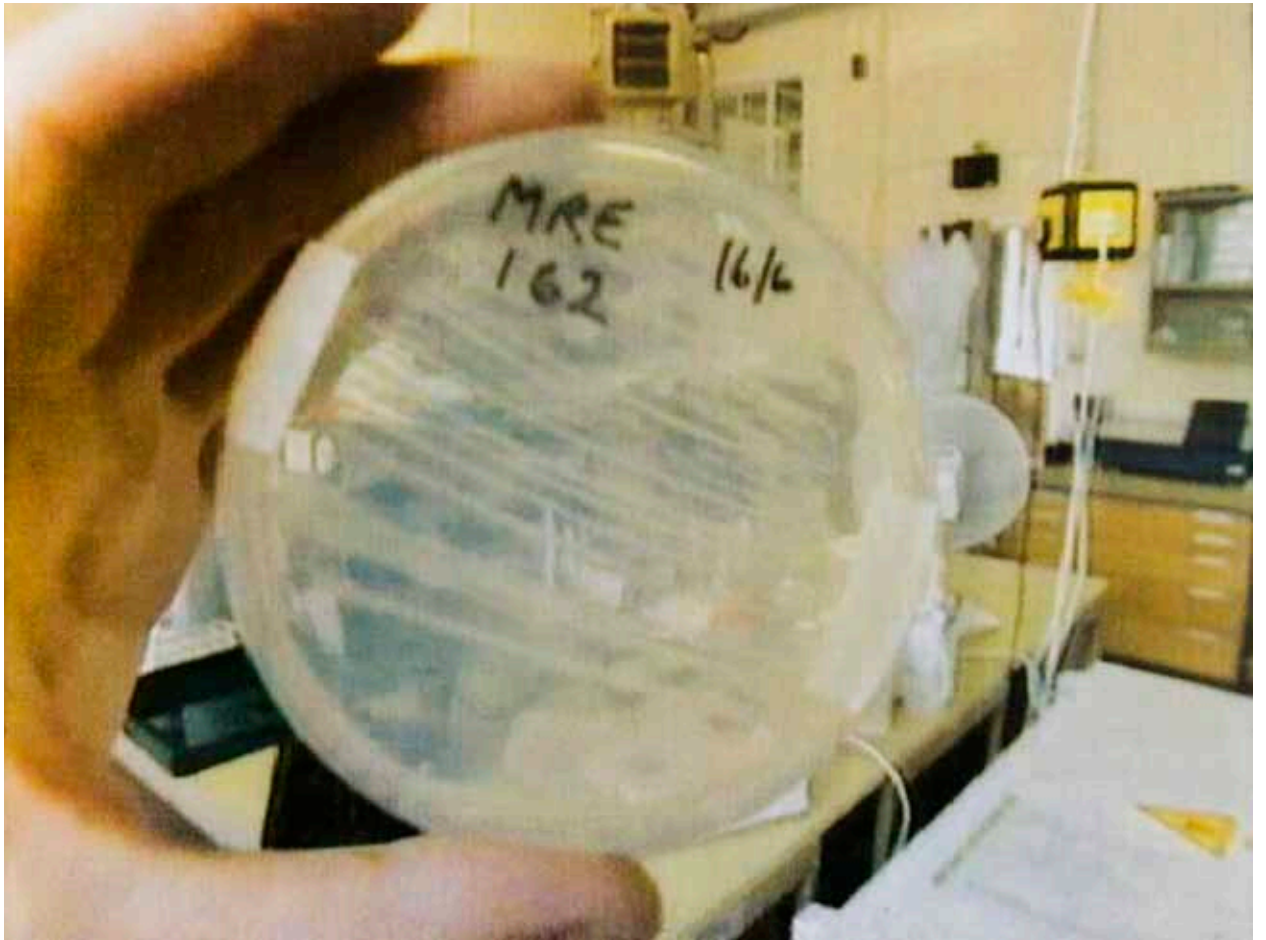
_____ (name)

Telephone No. _____

On consulting him (or another doctor if you are away) you must show him the card you hold relating to sickness.

3. Should you change your doctor you must notify the Senior Administrative Officer at M.R.E. immediately.
4. You must make sure that your family is aware of this instruction.

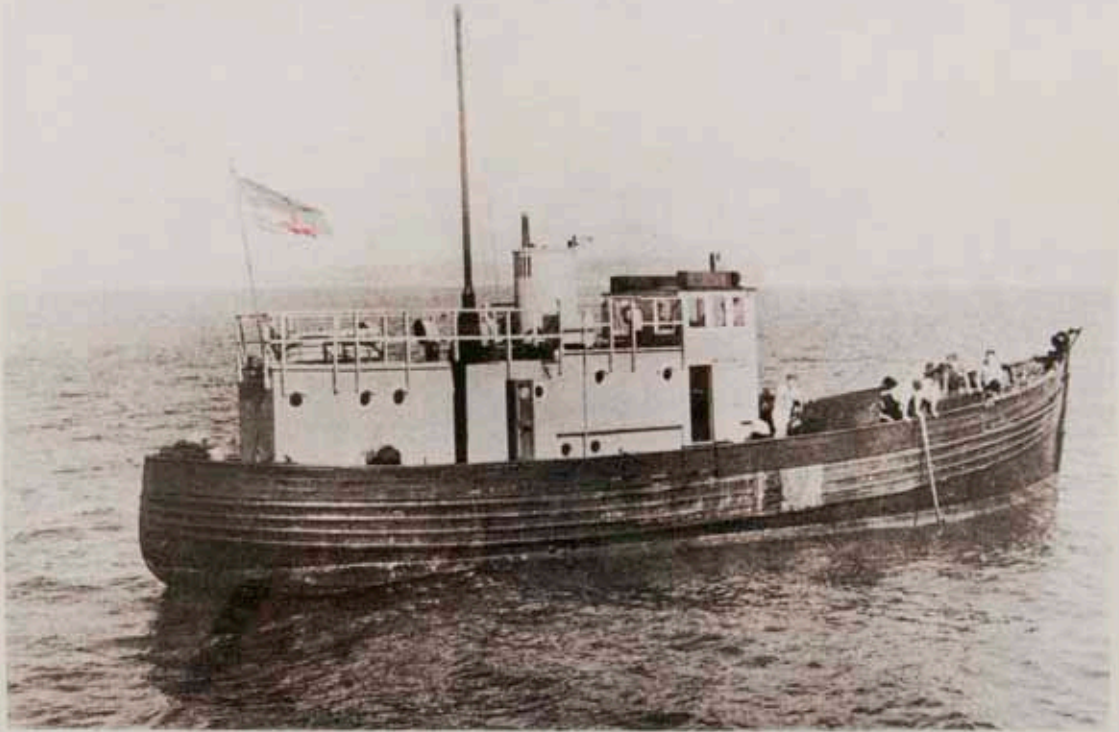
R. J. C. HARRIS
Director









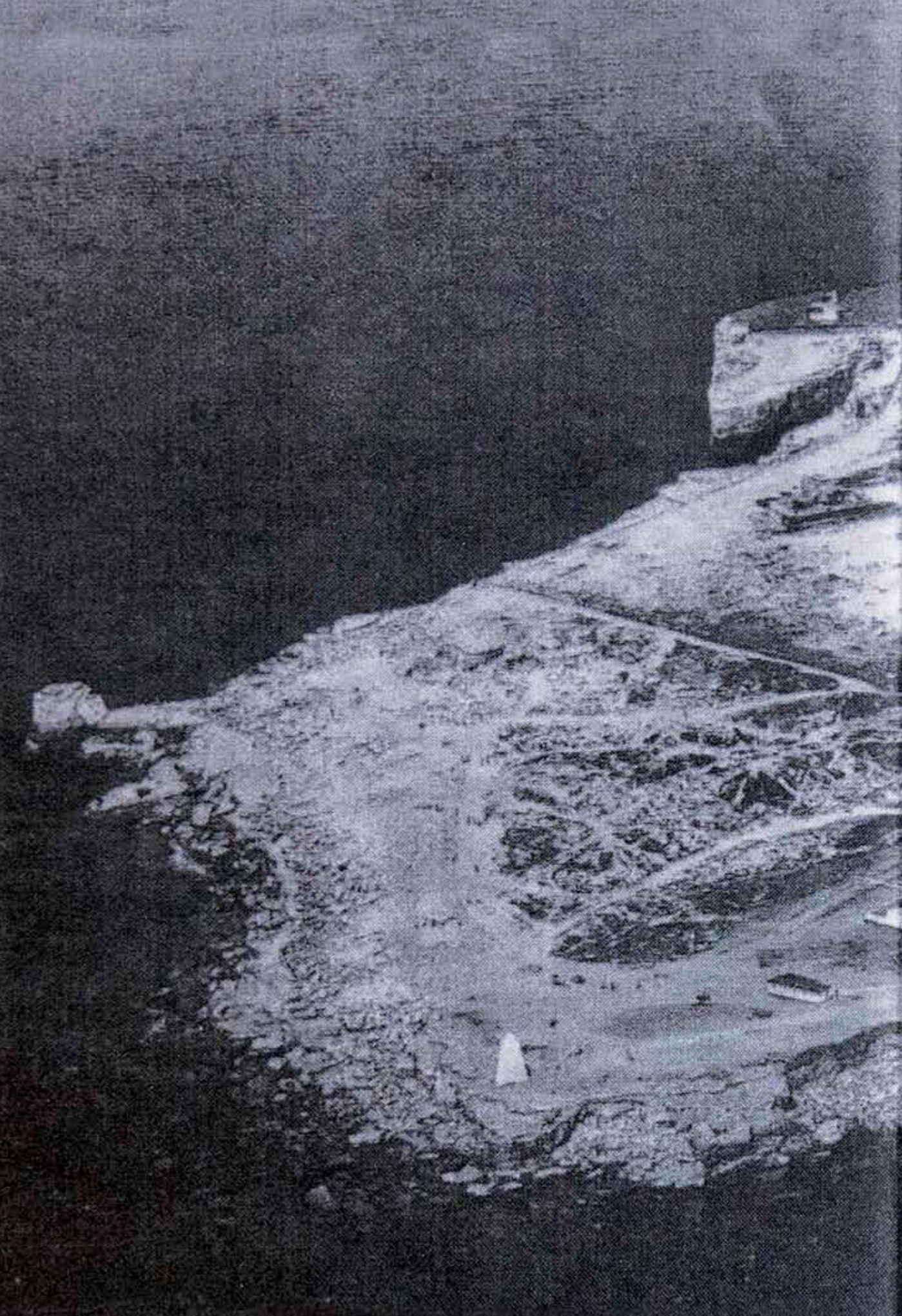


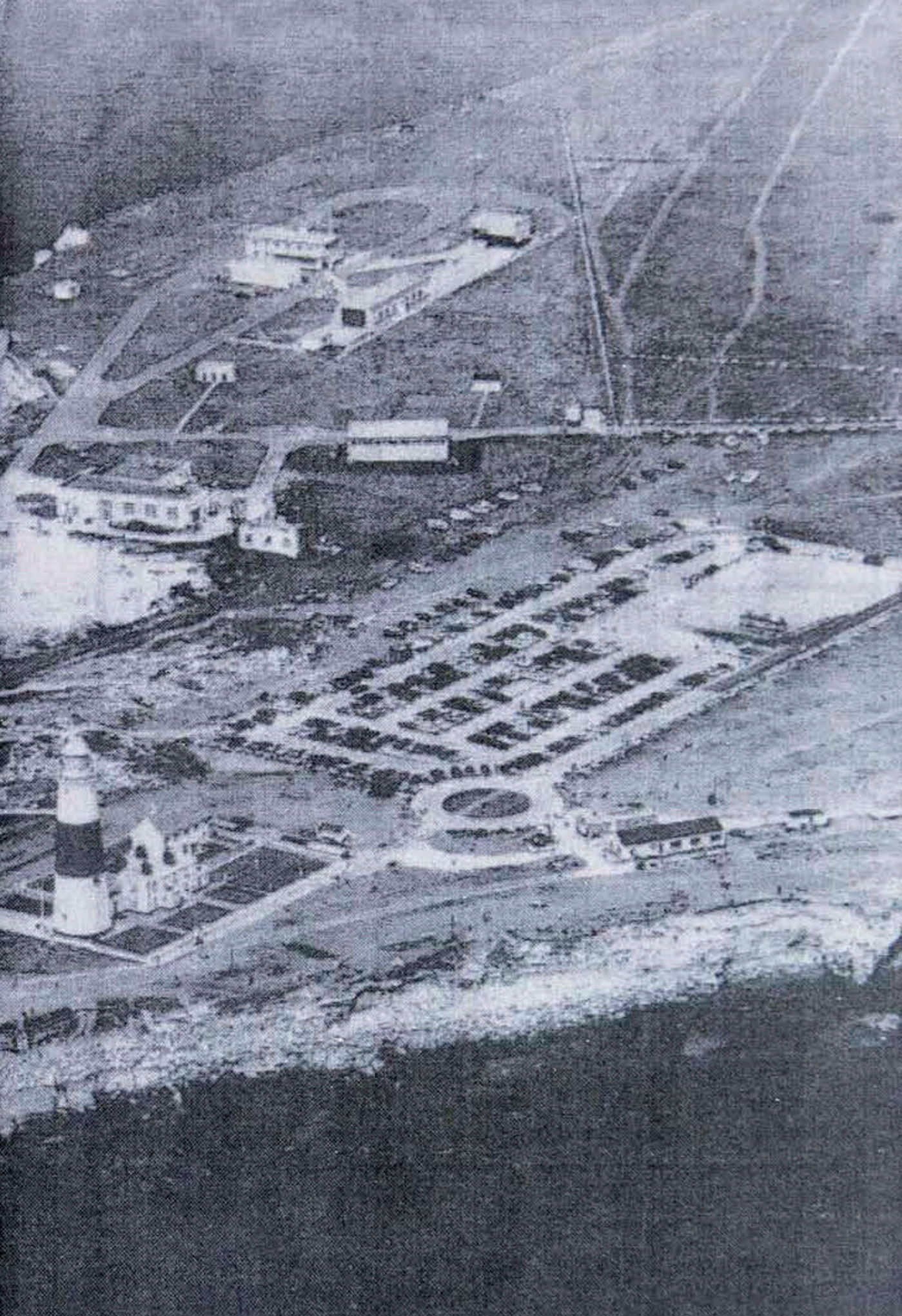
A.E.R.E. E/R 2625 Plate V
Dye Discharge at Sea















SITE #93

LYME BAY, DORSET

The Dorset Biological Warfare Experiments were conducted in the south Dorset area between 1963 -75. They took place under the control of the Microbiological Research Establishment from Porton Down.

Numbering scores of individual trials, where both live and dead bacteria were sprayed from the air and from ships off the coast onto large sections of the surrounding countryside were monitored by mobile detection sites at over 60 designated sites.

Four types of bacteria were used: E. Coli, Bacillus globigii, Bacterium aerogenes and Serratia marcescens, including the cancerous Zinc Cadmium Sulphate.

Clusters of health abnormalities downwind from the test sites have been reported over the last three decades. In a 2005 report The Defence Evaluation Research Agency said, "that they cannot rule out conducting larger scale trials in the future to try to ensure the protection of the UK from attacks by people of states using chemical and biological weapons".

SITE OPENED : 1963

SITE CLOSED : 1976

From [redacted] Manager, Corporate Affairs

DERA/SEC/5/13/100/99

15 June 1999

Mr [redacted]
[redacted]
[redacted]

DERA

Directorate of Corporate Affairs
Cody Building
DERA Farnborough
Hants GU14 0JX
Tel: 01252 [redacted]
Fax: 01252 [redacted]

Dear [redacted]

Thank you for your letter of 3 June concerning the open air release, during the 1950s and 1960s, of the chemical simulant zinc cadmium sulphide.

I enclose a list of the reports produced by CDEE that have already been placed in the Public Record Office. In addition to these, there are other internal reports on this subject which are currently in the process of being reviewed to be potentially declassified. You may also be interested to know that the Ministry of Defence is currently in the process of initiating an assessment of these trials.

You also asked for a copy of the minutes of the meeting of the Offensive Evaluation Committee during which this subject was discussed. Unfortunately CBD does not hold copies of minutes of these meetings; we believe that they may have been transferred to the PRO.

You also requested information about current procedures governing open air trials in public places. In the event of a military question arising which could only be answered by conducting open air trials in areas which may involve the general public, Ministers have made it clear that they cannot rule out the need to conduct larger scale trials in the future to try to ensure the protection of the UK from attacks by people of states using biological or chemical weapons. Indeed, events of the last few years, such as the chemical attack on the Tokyo underground, have shown the need to be prepared for similar acts of terrorism. Lord Gilbert, Minister for Defence Procurement, has, however, made it quite clear that should any large scale, open air trials be considered necessary in the future, permission to undertake them would not be given without appropriate consultation and an assessment by independent experts to ensure that public safety was not compromised in any way.

I hope that this information is useful to you. I would also like to remind you that the invitation to visit Porton Down to see the records for yourself is still open.

[redacted signature]
[redacted]

Mrs [redacted]

PROJECT CLEANSWEEP

Beyond the Post-Military Landscape of the United Kingdom

Project Cleansweep takes its name from a Ministry of Defence report issued in 2011. The report assessed the risk of residual contamination at sites in the United Kingdom used in the manufacture, storage, and disposal of chemical and biological weapons from World War I to the present day.

Project Cleansweep looks beyond the risk assessment to the ways that landscapes are psychologically charged by their history. Examining the sites of the official investigation and many more, including sites used for both chemical and biological weapons activities during the Cold War, Project Cleansweep follows traces that lead to military bases and government facilities, grocery stores and holiday parks.

The images take us into the country lanes of Dorset and Devon, the Peak District, the woodlands of Yorkshire and out across the open rolling countryside of the Salisbury Plain, all the way from the coastlines of East Anglia, the West Counties and Wales to the remote Scottish Highlands and the Irish Sea.

Over 4,000 sq kilometres of the landmass was appropriated for military use in the 20th century, marking the influence of military activities upon British landscapes and provoking deeper consideration of their lasting social and environmental impacts. Project Cleansweep presents unexpected vistas that challenge conventional understandings of place. This work also reminds us that war is domestic, one that employs thousands of people in production processes akin to activities in other industries.

As we recognise the inheritances of the past, the places pictured here become interstitial; they seem to exist between past and present, public and private, civilian and military. Here, too, the pastoral myths of the bucolic British landscape — of simple nature, a golden past — are disrupted by material realities embedded in the landscape itself. As we contemplate these images our perspectives shift, and yet a different kind of beauty persists.

Dara McGrath

SITE APPENDIX

SITE NO: 17	SITE NO: 22	SITE NO: 56
LOCATION: Avonmouth, Bristol	LOCATION: St. Helens, Merseyside	LOCATION: Woodside, Flintshire
DESCRIPTION: Located on the former National Smelting Works site, which at one stage during the First World War was the main centre for the production of mustard gas. In 2012 workers clearing the site for the building of a large ASDA supermarket distribution facility suffered from skin irritations and nosebleeds after discovering some buried munitions. The site today has been given the all clear and building has recommenced.	DESCRIPTION: During the First World War, the factory at Sutton Oak manufactured diphenyl chlorarsine, a mustard gas precursor. It closed for a period but re-opened some years later as a research facility. In 1932, factory employees were exposed and experimented on with mustard gas to test its effect on skin. When WWII started, the nation's stockpile of mustard gas was only ten tons, and for a period of six months the entire supply came from Sutton Oak. Today the site is a vacant industrial lot within the Abbotsfield Road Industrial Estate, halfway between Liverpool and Manchester.	DESCRIPTION: Located on a minor country road near the Rhydymwyn Valley Chemical Works. It was used as a spill over storage site to store bulk chemical weapons. The storage at Woodside was in 31 partially buried 55-ton tanks and 1-250 ton tanks. The site was experimental as it was used as a model for other bases to be built around the country. These Forward Filling Bases would receive and store chemicals and were ready to arm it in quick response to any chemical attack on the UK. Today the field is used for the rearing of grouse.
SITE NO: 03	SITE NO: 08	SITE NO: 21
LOCATION: Esrick, North Yorkshire	LOCATION: Riseley, Bedfordshire	LOCATION: Nancekuke, Cornwall
DESCRIPTION: Known as No. 80 Maintenance Unit and linked to the Forward Filling Depot at West Cottingwith and Riseley/Melchbourne Park and the Twinwood Airforce base. Part of the site was used for underground storage of mustard gas munitions. At present the mustard gas site is at the edge of the Hollicars holiday home park on the Esrick Park Estate and is planted within a mixed deciduous and coniferous woodland used for equestrian events and walkers.	DESCRIPTION: Riseley is situated 9 miles north of Bedford. It was a Forward Filling Depot with three 500-ton underground mustard storage pots and facilities for filling weapons. It also had 9,000 small munition cannisters, each holding 55 gallons of Y3 mustard gas. After WWII, Operation Inkpad involved the disposal of these stockpiles by burning them onsite. Residents recall clouds of black smoke emitting from the woods for over 8 months, causing their 'net curtains to discolour and then disintegrated'. The site had been so badly contaminated that a clean-up operation was conducted and completed in the 1988 Harwell Report. Today 6 fenced off areas remain contaminated. The site is now used for the breeding of deer.	DESCRIPTION: This was the main site for nerve gas production in the 1950s. Closing some five years later many of the contaminated buildings and equipment were dumped in quarries and mine shafts on and around the site, where they remain today. It is now an active military radar station, rumored to be part of the GCHQ, the British intelligence-gathering agency. Presently, the Nancekuke Remediation Project is ongoing to assess the site to determine what is actually buried there.
SITE NO: 24	SITE NO: 30	SITE NO: 23
LOCATION: Shingle Street, Suffolk	LOCATION: Whipton, Devon	LOCATION: Porton Down, Wiltshire
DESCRIPTION: Anthrax-laden bombs were tested in 1942 on a pebble beach outside this small coastal hamlet, where civilians had been evacuated two years earlier. Rumors of a failed German invasion helped keep visitors away from the secret site. To this day, little is known about the true military activities that happened here. Shingle Street is still a quiet seaside hamlet of about a dozen houses.	DESCRIPTION: This building was designated as a decontamination centre during World War Two. If and when the UK was attacked with chemical weapons then this facility would help with the decontamination of the population around the Exeter area. The building is now defunct, but for many years was a printing works.	DESCRIPTION: This is the home of the Defence Science and Technology Laboratory, the most secretive government science facility in the UK. For over a century, military scientists have researched at an early stage new weapons here including chemical and biological weapons. Recent and sporadic reports suggest they are still testing toxic agents on animals, as well as research into cannabis, ebola, bird flu, H1N1 virus and bubonic plague, among other activities.

SITE APPENDIX

SITE NO: 46	SITE NO: 05	SITE NO: 62
LOCATION: Wigg Island, Merseyside	LOCATION: Little Heath, Suffolk	LOCATION: RAF Yatesbury, Wiltshire
DESCRIPTION: Formerly known as the Randle Imperial Chemical Industries (ICI) plant. It produced mustard gas from 1938 onwards. As production increased it soon became clear that a safer site was needed and the Rhydymwyn plant was constructed in 1939 to facilitate this. Production ended there in the 1960's. In 2002 part of the site was declared a local nature reserve, however large parts of the site are off limits and there are numerous sarcophagi like structures that have entombed the highly polluted parts of the site, indefinitely.	DESCRIPTION: Maintenance Unit No. 94 was a Forward Filling Depot comprising three 500-ton underground mustard storage pots. Decanting and burning of munitions also took place here immediately after the war. It was part of a larger military base that was connected to the RAF Barnham nuclear bomb store. In 2009 the Johnson and Rogers report was released by the Defence Science Technology Laboratory, which discovered several munitions including several large jars of mustard gas. Today the site and its buildings are being used as a wood processing facility.	DESCRIPTION: On the 18th of May 1954, zinc cadmium sulphate was sprayed from a low flying aircraft on this base to test the effects of a biological weapons attack on the U.K. Zinc cadmium sulphate was known even then to be a carcinogen. This test was one of over 750 military biological weapons field trials carried out between 1946-75. Re-development of the former air force base into luxury apartments commenced in 2007 but collapsed amid the financial crisis of 2008.
SITE NO: 27	SITE NO: 18	SITE NO: 16
LOCATION: Kimbolton, Cambridgeshire	LOCATION: Sandown Bay, Isle of Wight	LOCATION: Grangemouth, Falkirk
DESCRIPTION: Located approximately two miles outside of Kimbolton Cambridgeshire, this railroad siding was used for the temporary storage and then the transfer of chemical weapons to the Forward Filling Depots. The forward filling depots were remote bases scattered throughout the area that housed large stockpiles of chemical weapons for which the British army were to use against the invading German army. Today Kimbolton is under agricultural usage and its predominant use is as a feeding place for livestock.	DESCRIPTION: In 1951, prior to the biological weapons test program codenamed Operation Cauldron, a series of mock trials took place in Sandown Bay on the Isle of Wight. Scientists from the Microbiological Research Establishment at Porton Down conducted a series of preliminary trials in order to test whether their proposed trial would work. Operation Cauldron that then took place off the Isle of Lewis in Scotland involved the releasing of biological agents, including pneumonic and bubonic plague, brucellosis and tularaemia on caged monkeys and guinea pigs on a floating pontoon.	DESCRIPTION: During WWII the airfield was used in the storage of bulk mustard gas. According to former crew stationed there, secret experiments involving the spraying of mustard gas took place. Today the site is occupied by INEOS, a giant petro-chemical complex that processes and supplies most of the vehicle fuel for Ireland and the UK.
SITE NO: 35		
LOCATION: Stornoway, Isle of Lewis		
DESCRIPTION: Operation Cauldron was a series of biological weapons tests that involved spraying pneumonic plague bacilli on floating pontoons a half-mile offshore at Tolsa Head. Nearly 3,500 guinea pigs and 83 monkeys were subjected to this experiment during the summer of 1952. On the last day of the operation, a fishing vessel strayed into the exposure area. Two naval vessels tailed the trawler for 21 days, waiting for a distress call that could indicate a plague outbreak. Fortunately no outbreak occurred, and almost all records of the incident were destroyed.		

ACKNOWLEDGEMENTS

With thanks to

Colin Barber, Rhydymwyn Valley Historical Society, Eileen Doxworth, Denis Thomas, Tom Plumbley, The North Wales Wildlife Trust, Ian Davidson, Cathy Dagg, Professor Neal White, The Office of Experiments, Bournemouth University, Mike and Michelle Kenner and The Mike Kinner Archive, Dorset Evening Echo, Dr. Karen Thompson, Gairloch Heritage Museum, Heike Gehringer, Ullapool Museum, Ronnie Ross, Moira MacBeth, Chris Brotherston, Ullapool News, Defence Science and Technology Laboratory, Bill Whyte, Dr. R.G.B. and Freda Willis, The Buxton Advertiser, Ruth Hayter, Harpur Hill Residents Association, Buxton Mountain Rescue, Norbert Dentressangle Ltd, The Honorable Serena Maclay, Fraser Auction Rooms, Jean Gibb, Gary Bodenham, The Imperial War Museum, Kasia and Vinny at Read That Image, Photolreland, Gallery of Photography, Dublin, Source Magazine, Eva, Ella and Rachel Andrews.

PROJECT CLEANSWEEP

Dara McGrath

DUMMY EDITION

© Dara McGrath 2016
www.daramcgrath.com

© Design by Read That Image
www.readthatimage.com



