

Name: Paul Crame

Course Module: MA Archaeological Practice: Archaeological Research Methods (HPAR7004)

Tutors: Nigel Nayling and Martin Locock.

Date: 17/11/2021

Word Count: 2081 (including metadata descriptions).

Construct a database or dataset of selected archaeological material/records, provide metadata statements in line with current archaeology data service guidance, and a commentary justifying explaining its structure and the categorisation and classification of data. (2000 words)

In late 2020, CITIZEN, a community-based archaeology network supported by the Museum of London Archaeology (MOLA), was conducting fieldwork on fish-weir stakes in the Sandwich Bay area of East Kent (CITIZEN, 2020). While recording the data points of the wooden stakes, they came across larger short stumped wooden poles, approximately the width of telegraph poles protruding from the foreshore sand. Q-GIS maps (Appendix 1) showed that the poles formed into square grid patterns on the beach, different from the smaller hedge fish-weir stakes structured into V-shaped patterns on the foreshore trapping fish on the outgoing tide. Forty-three large poles were recorded in late 2020 and loaded into a Q-GIS database, with the following data fields: Northing, Easting, Z-Coord and Diameter.

A CITIZEN volunteer also managed to locate a retired lifeboat coxswain called Bruce Brown. He indicated that the poles on the beach were erected during World War II (WWII) as Anti-Aircraft Landing Poles (AALPs). After the war, the AALPs (may have been used) to tether fishnets by a local fishmonger; However, Bruce and his brother received payment from golf club members to cut the AALPs down, enabling private aircraft to land on the beach (Appendix 2).

Many active WWII defence measures such as pillboxes and anti-aircraft batteries have been identified and mapped for low-level coastal crust defences in the Southeast of England (Smith, Heritage Conservation Group, KCC, 2015). Comparatively, passive defence measures such as AALPs have been neglected in the literature. Interestingly, on the other side of the channel in France, we have well-documented material concerning 'Rommel's Asparagus' (Beevor, 2012, p.36-7); AALPs used on the beaches of Normandy towards the end of WWII.

The South-East Rapid Coastal Zone Assessment (Thorogood et al. 2019) does not list any of these passive defences used in Sandwich Bay; however, it designates nearby Pegwell Bay, located one mile east, as an area where AALPs exist in the intertidal zone. Ramsgate Heritage Action Zone: An Assessment of Aerial Photographs and Lidar (Small & Barber, 2016) also provides a more precise visual indication of the grid patterns in which the anti-aircraft poles were spaced apart in the intertidal zone at relative distances. (Appendix 3). This pattern fits well with the dataset recorded at Sandwich Bay in 2020 (Appendix 4); also correlating with the qualitative data gathered from Bruce Brown discussed above.

The South-Eastern Regional Research Framework (SERF) is still a work in progress (KCC, 2021). However, there is potential to produce some of the AALPs data into the appendix of any future SERF publication, especially given that the East Kent Historic Environment Record (HER) lacks detail for AALPs in this area of the coast. A requirement was identified to develop the 2020 dataset in-line with CITIZEN's research priorities to record changes in our coastline due to WWII defences and the effects of coastal erosion (CITIZEN, 2021). Also, Kent Archaeological Society (KAS) Defences Committee research aims to continue

research of the defences that we already know about and make new discoveries by studying records, maps, aerial photographs, and ground investigation (KAS, 2021).

On the 6th and 7th of November 2021, CITiZAN volunteers gathered at Sandwich Bay for the AM low tides, utilising the 2020 Q-GIS dataset to identify the Northing, Easting and Z coordinates of the forty-four AALPs recorded twelve months previously. The diameter of the AALPs was already recorded in the 2020 dataset, but the objective was to create the following new fields from the 2020 dataset to see if more information could be discerned about the AALPs.

Height data was taken in the unit of millimetres from the base of the AALPs at the foreshore level to the top of the posts; this could be useful for comparative longitudinal data collection, indicating the rate of the AALPs erosion over time. Checkboxes were added to the 2021 data collection to visually identify any tool marks on the AALPs, which could give additional insight into the construction of the AALPs or their destruction in the post-war years. It was understood that the AALPs were round woods in shape and structure, but the 2020 dataset did not confirm this point, so it was decided that a checkbox would be used to either prove or disprove this claim and possibly identify any outliers in the dataset. Again, binary checkboxes were added, although it was thought probable that all the AALPs were of a hardwood origin, a softwood might give additional insight into any variable sources of the AALPs. Lastly, a final checkbox was added to the data collection to see if any discernible attachments might indicate any different purposes for the AALPs in the post-war years.

Two additional fields were added for the 2021 data collection to record image data on the forty-three AALPs. In order to validate the dataset with an image to scale and another clear image not scale, ensuring future comparisons of any erosion to the AALPs could be visually observed (Appendix 5). The image data files were stored in a separate location to the database, not embedded into the database. A notes field was added for further details that could not be captured in the other fields.

The CITiZEN mobile application was used to locate the 2020 Q-GIS data points. The application had a GPS accuracy of approximately 5 meters on the targets, which was not problematic. The application was engineered to monitor the intertidal zone by volunteers; however, the uploaded data is also quality checked by CITiZAN archaeologists and then uploaded to the Archaeological Data Service (ADS), where the gathered data is quality checked for the correct metadata.

The resulting datasets from 2020 and 2021 were relatively small, as only 44 AALPs were identified in 2020 and 30 AALPs in 2021. The 13 absent AALPs were thought to result from storm damage, being covered by the shifting tidal sand sediment or possibly human interference as Sandwich Bay is used extensively by bait diggers. Whilst recording, it was also noted that AALPs appeared on the foreshore that were not previously recorded with coordinates in the 2020 dataset. It is more probable that the 13 absent AALPs are still deep under the sediment in this highly morphological marine environment; a future late 2022 data collection should help resolve these questions.

The 2021 dataset was a flat datasheet with fifteen fields recorded into Microsoft Access rather than Microsoft Excel. It is believed that the data will become increasingly queryable with relational field keys as additional data is collected for late 2022, perhaps also expanding the number of collection points to the AALPs in nearby Pegwell Bay Ramsgate. The 2021 dataset was converted and saved into a (CSV) file, a recoverable proprietary file format that would make the dataset accessible for future use.

The 2021 dataset was very uniform. As mentioned, not all the data points could be identified in the 2021 dataset. The collected height data produced a range of between 600 millimetres to 35 millimetres, and a mean average of 124.7 millimetres. No discernable tool marks could be identified from the sample; as predicted, all the AALPs were Roundwood in structure, and

although difficult to discern given the rate of erosion from the sea, all appeared to be a type of hardwood that could be sampled at a later date to determine the wood species. No attachments could be identified on the AALPs, to indicate they were re-purposed with intertidal fishing nets in the post-war period.

Critically, it can be argued that the 2021 dataset did not reveal anything further that we did not already know about AALPs; but as observed at the beginning of this data collection, there is still a substantial gap in our knowledge concerning these passive forms of defences used at a critical point in the early part of WW2. Future research is needed to obtain digital copies of oblique overhead photographs of this part of the intertidal zone in the interwar and immediate post-war periods. Quite literally, there is still a need to join up the dots of AALPs on the Southeast coast of England with extensive use of fieldwork methodologies in a broader area of the intertidal zone.

Below are the links to the database data, which can also be found in (Appendix 6 & 7) and metadata descriptions for both the 2020 and the 2021 datasets.

- Access Database URL Link:
<https://drive.google.com/file/d/14fG0ZvOM6PljG00HTGGJL5Gpfm6ZZDCr/view?usp=sharing>
- CSV File URL Link 2020 Dataset: <https://drive.google.com/file/d/1Dley2-NTLI18gujIKW3MycBgJBucoNq3/view?usp=sharing>
- CSV File URL Link 2021 Dataset:
https://drive.google.com/file/d/1Gfll90PodU1l_DNUkP0XfwiRlt2MbzEC/view?usp=sharing

Metadata main description for database:

File Name:	Title:	Description:	Creators:	Copyright Holder:	Creation Dates:
 Anti_Aircraft_Landing_Poles-Dataset.accd	Anti-Aircraft Poles Sandwich Bay Kent UK	Two Flat datasheet of 44 data points of Anti-Aircraft Poles, recorded between 2020 and 2021 in Sandwich Bay Kent, UK	Lara Band 2020 Data Points Paul Crame 2021 Data Points	Paul Crame / Lara Band Citizen	Start: 18/09/20 Finish: 07/11/21
Software Used:	Version:	Language:	Entity Relationship:	Supporting Files:	

Microsoft Access	Microsoft Access 2016 - (16.0.5224.100)	English (UK)	N/A Small uniform dataset	CSV propriety File Format of Data set
------------------	---	--------------	------------------------------	---------------------------------------

Database structure description: Dataset_2021

Table Name:	Table Description:	Primary Key:	Foreign Key:	Row Count:
Dataset_2021	31 Data points of anti-aircraft poles	Item_ID	N/A small dataset	15

Fields descriptions: Dataset_2021

Field Name:	Field Description:	Field Data Type:	Field Length:
Item_ID	Artefact numerical identifier: Primary Key	Numerical	2
Field Name:	Field Description:	Field Data Type:	Field Length:
Date_2020	Date sampled data was collected for following fields: Item_ID, Northing, Easting, Z Coord and Diameter.	Calendar	8
Field Name:	Field Description:	Field Data Type:	Field Length:
Date_2021	Date sampled data was collected for following fields: Height, Tool Marks, Round Wood, Hard Wood, Attachments_to_Pole, Image Data Scale URL,	Calendar	8

	Image_Data_URL and Notes.		
Field Name:	Field Description:	Field Data Type:	Field Length:
Northing	Distance of Item_ID data point measured northwards.	Numerical decimal point.	11
Field Name:	Field Description:	Field Data Type:	Field Length:
Easting	Distance of Item_ID data point measured eastwards.	Numerical decimal point.	11
Field Name:	Field Description:	Field Data Type:	Field Length:
Z-Coord	Third-dimensional coordinate of Item_ID datapoint.	Numerical decimal point.	12
Field Name:	Field Description:	Field Data Type:	Field Length:
Height – (mm)	Measurement from the top of post to the base in millimetre units.	Numerical	3
Field Name:	Field Description:	Field Data Type:	Field Length:
Diameter – (cm)	Measurement of one point of the circular post top, to the opposite point via the centre (the longest chord of the circle) in centimetre units.	Numerical	4
Field Name:	Field Description:	Field Data Type:	Field Length:
Tool_Marks	Discernible marks made on poles from tools. Further details to be added to Notes field.	Check Box: ticked = Yes, Un-ticked = No	1
Field Name:	Field Description:	Field Data Type:	Field Length:
Round_Wood	Geometric shape of post	Check Box: ticked = Yes,	1

		Un-ticked = No	
Field Name:	Field Description:	Field Data Type:	Field Length:
Hard_Wood	Hardwood as opposed to softwood in appearance.	Check Box: ticked = Yes, Un-ticked = No	1
Field Name:	Field Description:	Field Data Type:	Field Length:
Attachments_on_Pole	Discernible appendages to poles such as nails. Further details to be added to Notes field.	Check Box: ticked = Yes, Un-ticked = No	1
Field Name:	Field Description:	Field Data Type:	Field Length:
Image_Data_Scale_URL	URL link to secure outside sourced image of artefact with scaled measure.	Hyperlink	N/A
Field Name:	Field Description:	Field Data Type:	Field Length:
Image_Data_URL	URL link to secure outside sourced image of artefact without scaled measure.	Hyperlink	N/A
Field Name:	Field Description:	Field Data Type:	Field Length:
Notes	Additional information on the data point which has not been possible to characterise in other fields contained in the dataset.	Alphanumeric	N/A

Database structure description: Dataset_2020

Table Name:	Table Description:	Primary Key:	Foreign Key:	Row Count:
--------------------	---------------------------	---------------------	---------------------	-------------------

Dataset_2020	44 Data points of anti-aircraft poles	Item_ID	N/A small dataset	4
--------------	---------------------------------------	---------	-------------------	---

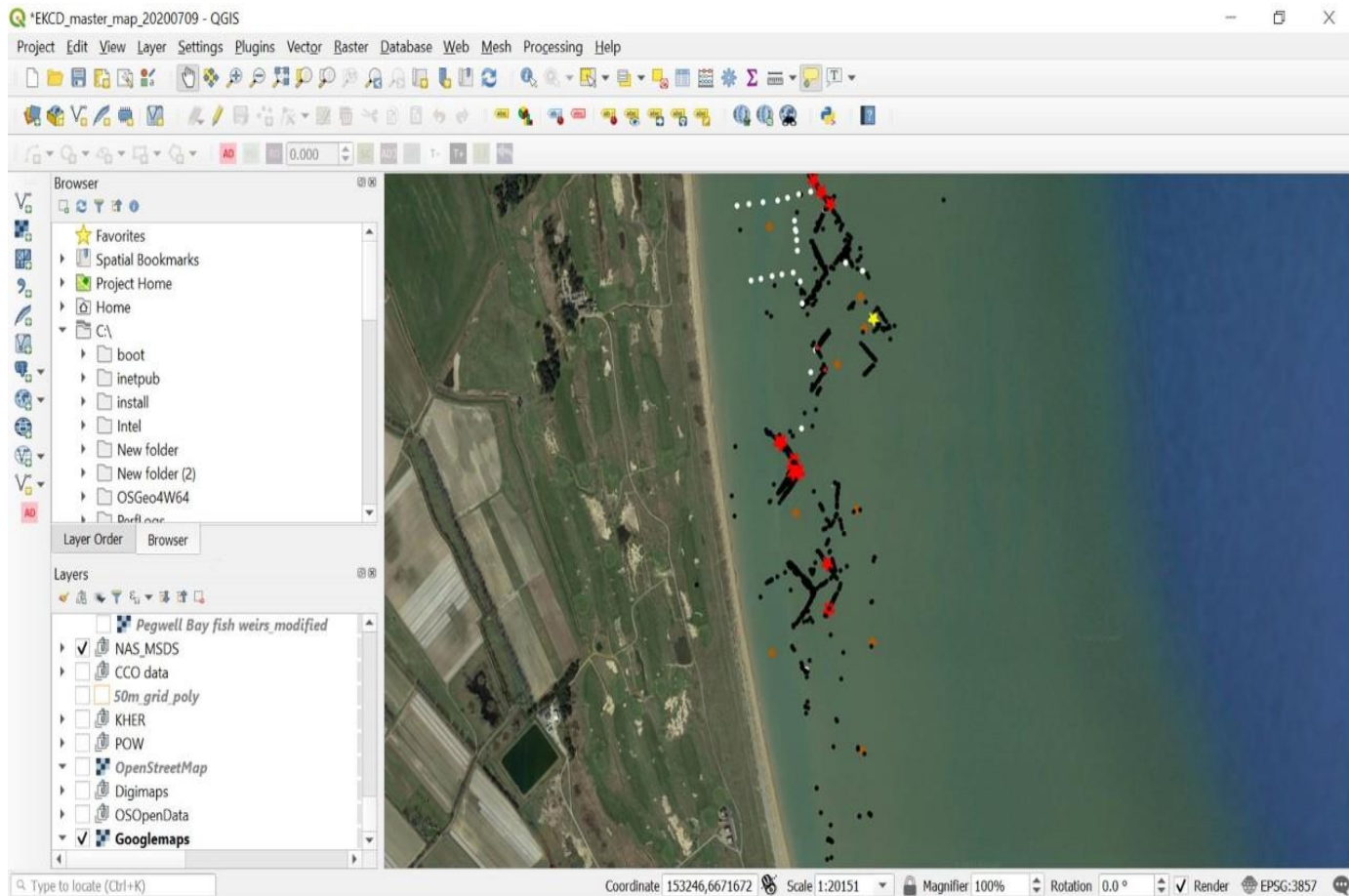
Fields descriptions: Dataset_2020

Field Name:	Field Description:	Field Data Type:	Field Length:
Item_ID	Artefact numerical identifier: Primary Key	Numerical	2
Field Name:	Field Description:	Field Data Type:	Field Length:
Date_2020	Date sampled data was collected for following fields: Item_ID, Northing, Easting, Z Coord and Diameter.	Calendar	8
Field Name:	Field Description:	Field Data Type:	Field Length:
Easting	Distance of Item_ID data point measured East.	Numerical decimal point.	11
Field Name:	Field Description:	Field Data Type:	Field Length:
Northing	Distance of Item_ID data point measured North.	Numerical decimal point.	11
Field Name:	Field Description:	Field Data Type:	Field Length:
Z-Coord	Third-dimensional coordinate of Item_ID datapoint.	Numerical decimal point.	12
Field Name:	Field Description:	Field Data Type:	Field Length:
Diameter – (cm)	Measurement of one point of the circular post top, to the opposite point via the centre (the longest chord of the circle) in centimetre units.	Numerical	4

Bibliography:

1. CITiZEN,(2020) Fish weir(d) and wonderful Sandwich Bay, Kent. Available at <https://www.citizan.org.uk/blog/2020/Jul/17/stakes-and-ships-sandwich-bay-kent/> (Accessed at 11/11/21).
2. Beevor, A., (2012). *D-Day: The Battle for Normandy*. UK, Penguin.
3. Smith, V., (2015) *Kent's military and civil defences during the 20th century: The Defence of Thanet Historical briefing* (unpublished: Written for the Heritage Conservation Group of Kent County Council).
4. Thorogood, S., Hamel, A., Lambert, V., Bicket A., (2013) *South East Rapid Coastal Zone Assessment Survey Phase 1 Desk-Based Assessment*: Wessex Archaeology.
5. Small, F., and Barber, M., (2019) *Ramsgate Heritage Action Zone: An Assessment of Aerial Photographs and Lidar*. Historic England.
6. Kent County Council, KCC (2021) South East Research Framework (SERF). Available at <https://www.kent.gov.uk/leisure-and-community/history-and-heritage/south-east-research-framework> (Accessed at 11/11/2021)
7. CITiZEN, (2021) Research Frameworks. Available at <https://citizan.org.uk/resources/research-frameworks/> (Accessed at 11/11/2021)
8. Kent Archeology Society (KAS). Kent Defence Research Group (KDRG), a Special Interest Group of the Society. Available at <https://www.kentarchaeology.org.uk/about-us/committees/kent-historic-defences> (Accessed at 11/11/2021)

Appendix 1: QGIS overview of Pegwell Bay data points. Black dots in V formation are fish-weir stakes and white dots in grid lines are Anti-Aircraft Poles.



Appendix 2: Bruce Brown Interview:

Bruce Brown, former coxswain of the Walmer lifeboat, telephone call 25/9/2020, by Lara

Contact via David Chamberlain on Facebook messenger: *Hi Lara. I have just had a talk with a friend who knows more about the Kettle/keddle nets than I do as he lived at the Princes golf club in the 50's. He said they belonged to Alf Champs from Sandwich and he used to tend them when Alf could not (1954-1960). He also mentioned large poles, similar to telegraph poles in the sand to stop aircraft landing in the conflict. He is a mine of information and would be prepared to talk to you. His name is Bruce Brown and was coxswain of Walmer lifeboat many years back. Mention my name when calling.*

The below is a copy of notes as written during the call. I've put my words in [square brackets] where I remember what he said but didn't write it down, or where I switched to third person in my notes, rather than writing exactly what he said.

In my time kettle nets staked in the ground, just below the lower water mark [sic]. Alf Champs, a fish dealer in the early 1950s used them. [I] used them when he couldn't get to them on the tide, 1955-56. He was there before that, just after the war. He put them all in sort of tennis net high and L shaped. Just below the high water mark [sic], opposite the new golf course at Bloody Point, he'd go and get fish. [You got the] smooth sand [then the] crinkly sand, they'd be there. He only had a couple.

Thick poles, telegraph poles to stop aircraft. Poles actually buried in the sand and stuck out quite high. Bait diggers would lean their push bikes against them. A couple of golf club members paid me and my brother to saw them off so they could land their aircraft!

[I asked him about the stake nets again] He only had two lengths of net there. Near Bloody Point Coastguard Houses, in that area on the crinkly sand'. [Not Bloody Point as in Hole 5 of Princes as this was created as part of the Himalayas May 1 2018]

[He explained that his parents moved there when Princes opened [1906? Or when it re-opened after the 2WW in 1952? Seems more likely]. He was living with them when he was doing his National Service, that how he knows the dates he helped with the stakenets.]

A couple of aircraft crashed there. And another old wreck, right opposite the flagstaff of the old clubhouse – the "Portuguese Wreck" [they called it]. There were still bottles of wine and beer in there when I was young. They're possibly now in Canterbury Museum. Sole and Plaice used to get trapped in there.

You got sole and plaice in the kettle nets. Alf said I can't get to the nets one weekend and he said to me any fish you can see you can have. Got there and all I could see were silver spring herring at the bottom, the odd plaice, dogfish, skate. Get anything he said. Well not much I said. Alf said some must've got there before you [he was joking]. Then he showed me, they were all there under the sand, sole, plaice and skate.

Sometimes we'd [not sure if he meant him and Alf, or him and his brother] get there and there'd be a seal there, or [caught?] on a long line. We'd chuck them in the dunes and the fox would take them. [He remembered seals there as long as he was, and during the war].

The nets went out of use when Alf finished, early 1960s. A lot of people never went there which is why people wouldn't know [about them] – only bait diggers.

[Him and his brother used to get cockles in a barrow with a sail on it]. Only one person who had a sand sail boat, who lived near the Guildford Hotel. Now people have cars, then they didn't.

[They were] hardwood stakes – the aircraft ones.

Kettlenet stake 2 inch wooden poles, just put them in the ground, like fence poles 6 – 8 foot high. Would go in about 2 foot deep with nets tennis net high. [I asked him if he knew what wood they were made of, he didn't know but hazel or ash he wondered]. It would have been all local wood anyway. There were woods at

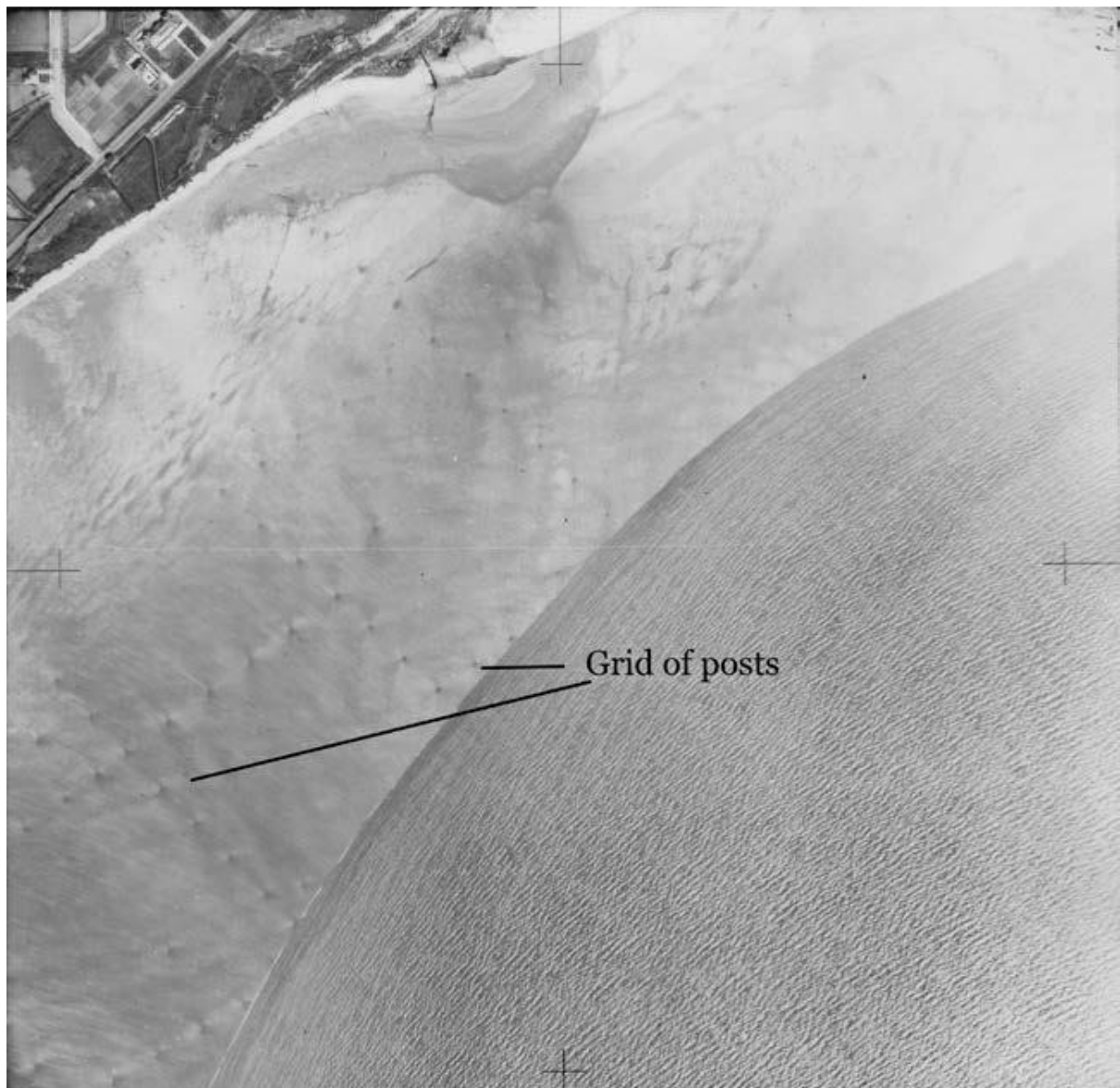
Canterbury, Charlton? Chartham? [Not sure if he said Charlton or Chartham or both, I've written both and both exist near Canterbury]. Ash or Elm maybe but boat builders would use elm and oak was rare so...

[On a south east wind he'd go with his grandad and pick up coal and pitch. He'd put pitch on the fire and it melted].

[He lives in Deal and would be happy to be recorded].

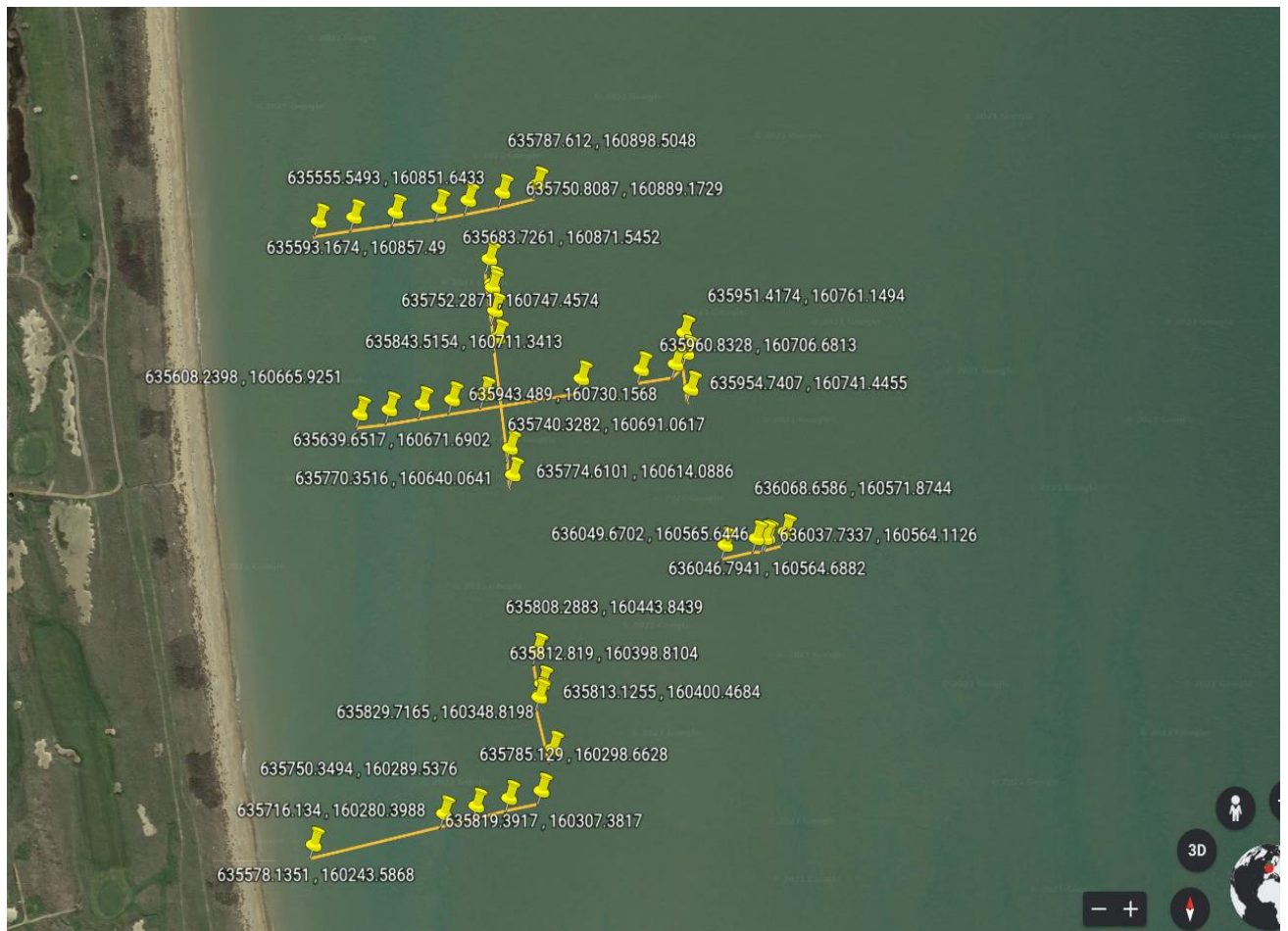
Sandwich Bay was so out of the way, people didn't go, it was so awkward. You'd have to walk the Roman road from Deal.

Appendix 3: Aerial view of AALPs 1942 – Nearby Pegwell Bay.



Second World War anti-invasion defences on the mud flats of Pegwell Bay made up of an extensive grid of posts or stakes exposed at low tide. Extract from RAF/HLA/540/V/6053 17-MAY-1942 Historic England Archive (RAF Photography).

Appendix 4: AALPs mapped with Real Time eXtended (RTX) GNSS positioning.



Appendix 5: Image files – Note: Apple I Cloud is only temporary location until 09/12/21 for this assignment, image files will be stored longer term by Citizen Sandwich Bay Project.

Image links and Metadata Descriptions:

ITEM_ID 3:

Filenames:	https://share.icloud.com/photos/0p2YOVJy674EcCVR9dANmmYKq https://share.icloud.com/photos/0yaWbIFT4AbvWz9g2gXPW7Y7g	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 3: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635808.6475 N: 160443.4433 Z: -1.767779088
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 4:

Filenames:	https://share.icloud.com/photos/037PXvZuN5M3CtasQDWvoN-PA https://share.icloud.com/photos/0TOA2047pcw-V78AwiBrNdSFq	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 4: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635774.6101 N: 160614.0886 Z: -1.634009551
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 5:

Filenames:	https://share.icloud.com/photos/0yeWzMX7RH9-RRvqls783n98w https://share.icloud.com/photos/0TOA2047pcw-V78AwiBrNdSFq	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 5: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent,	Coordinates:	E: 635770.3516 N: 160640.0641 Z: -1.662805087
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 6:

Filenames:	https://share.icloud.com/photos/0ygktr18YJ2sAA5sG-GHrUjMg https://share.icloud.com/photos/0vROdgZroJrg02_eDZcC7FShQ	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 6: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635752.2871 N: 160747.4574 Z: -1.417791577
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 7:

Filename:	https://share.icloud.com/photos/0YZ4keWlqGqYzdh2YIEUKRUzQ https://share.icloud.com/photos/0Ts_---epqfiGUd3L6z5cqVdw	Copyright Holder:	Paul Crame / Citizen.Org
------------------	--	--------------------------	--------------------------

Caption:	ITEM_ID 7: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635748.1746 N: 160773.399 Z: -1.442240522
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 9:

Filenames:	https://share.icloud.com/photos/0UdnDJgSwUrdsbgioJgk3oOcq https://share.icloud.com/photos/0z8xy3uRUXFzaSbR4zggzxNcA	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 9: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635743.7711 N: 160799.6071 Z: -1.400261649
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 10:

Filenames:	https://share.icloud.com/photos/02qoIFRpTc5GLk-QPd8X9H8Xq https://share.icloud.com/photos/0shBx93MIVRqITxXmzZjiLaoA	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 10: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635739.7642 N: 160823.3904 Z: -1.415067033
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 11:

Filenames:	https://share.icloud.com/photos/0mVr-uXGUJEefPCknusYqOR2Q https://share.icloud.com/photos/00K3e6UorHeF5r1qbMwnbxSLq	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 11: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635750.8087 N: 160889.1729 Z: -1.380616022
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 12:

Filenames:	https://share.icloud.com/photos/0lRWhdK-N2rha5UvTkTXLfd1Q https://share.icloud.com/photos/0SpOWFvR5lIwl7q3CLmoyErg	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 12: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635740.3282 N: 160691.0617 Z: -1.47205704
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 13:

Filenames:	https://share.icloud.com/photos/0AcbyYwfy5WDJl-uLd_eKZQ https://share.icloud.com/photos/0FJpVa8vXFBCUqkUCPFp3sAmw	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 13: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK

Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635706.3925 N: 160684.4804 Z: -1.507888505
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 14:

Filenames:	https://share.icloud.com/photos/05bICMVQI17lIT5D2UH6zClq https://share.icloud.com/photos/0BJU6iS03K1Bxy7kyeNXCFuTw	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 14: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635674.5408 N: 160678.516 Z: -1.238089043
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 15:

Filenames:	https://share.icloud.com/photos/0i1gduBBCB31UO20QImGaJizw https://share.icloud.com/photos/0FtLMchZjKyBvSK2V0VpeUryq	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 15: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635639.6517 N: 160671.6902 Z: -1.13569869
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 16:

Filenames:	https://share.icloud.com/photos/0tGdei6w3ChhD1VKaZgMVgdxA https://share.icloud.com/photos/0tGdei6w3ChhD1VKaZgMVgdxA	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 16: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635608.2398 N: 160665.9251 Z: -0.924833994
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 17:

Filenames:	https://share.icloud.com/photos/0K2tZFFTKfL3DINxwJnbzPZg https://share.icloud.com/photos/0LNsIY8oO-Pyg0Kw1tZZN9K8A	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 17: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635787.612 N: 160898.5048 Z: -1.430982259
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 19:

Filenames:	https://share.icloud.com/photos/0KToEJNCvOa61CSc4MqxnAosQ https://share.icloud.com/photos/0y2eLTmZ9DCul8rMes7iYLP6g	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 19: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635907.1327 N: 160723.2015

			Z: - 1.753910827
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 20:

Filenames:	https://share.icloud.com/photos/0KCCCJWqh0Hm9axcHSMi2rEsQ https://share.icloud.com/photos/0-M-e5O7dvAY9-linNr-HsQ	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 20: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635960.8328 N: 160706.6813 Z: -1.914389128:
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 21:

Filenames:	https://share.icloud.com/photos/0pQBGWDanhxTq7SMogg5xxJGQ https://share.icloud.com/photos/00K3e6UorHeF5r1qbMwnbxSLq	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 21: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635714.5804 N: 160879.6202 Z: -1.321614241
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 23:

Filenames:	https://share.icloud.com/photos/0fc5STU09gzQPJPfEcb4NEckg https://share.icloud.com/photos/0aXYk9X9iHIY5hfvxkO5Xsmig	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 22: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635637.2535 N: 160864.3237 Z: -1.080433991
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 24:

Filenames:	https://share.icloud.com/photos/03V-s-sjnuSgSgcmIO_FWn4dw https://share.icloud.com/photos/0WPwhAF4jT_igv12MvhOOPRHA	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 24: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635593.1674 N: 160857.49 Z: -1.049062185
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 25:

Filenames:	https://share.icloud.com/photos/0pW71tisa8gPAiRI-cM7vR8IQ https://share.icloud.com/photos/0n8qsDY2odlHkZRsl37lssBWg	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 25: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635555.5493 N: 160851.6433 Z: -0.962826858

Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 26:

FileNames:	https://share.icloud.com/photos/0SdGGYzt-JfOiH6B3FxoIsqZQ https://share.icloud.com/photos/0xepxG-Zq9L-eA_pVV2EN-Kow	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 26: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635943.489 N: 160730.1568 Z: -1.831387348
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 27:

FileNames:	https://share.icloud.com/photos/0EZrYyBux0500yn_IdWMFEPq https://share.icloud.com/photos/0N21cGqfOX9FvpU_oOvYtl5uw	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 27: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635954.7407 N: 160741.4455 Z: -1.82783688
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 29:

FileNames:	https://share.icloud.com/photos/0cMDQFVZv_dXVQNSpZbHPWwxQ https://share.icloud.com/photos/0hsRmTw4_ZffJgvur5NHq0cFA	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 29: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635808.2883 N: 160443.8439 Z: -1.659010122
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 34:

FileNames:	https://share.icloud.com/photos/02DiODE0W-mhyKKakSYyCXeUQ https://share.icloud.com/photos/0sDiJfrgHa8Qr7yU_NK_Q4llg	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 34: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635819.3917 N: 160307.3817 Z: -1.822607782
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 35:

FileNames:	https://share.icloud.com/photos/0sl2bEn50fV4XGOYxpOwBWJlg https://share.icloud.com/photos/0tOgm-N7QJ3T6BvZFw-r0BzrA	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 35: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635750.3494 N: 160289.5376 Z: -1.623734474

Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 36:

Filenames:	https://share.icloud.com/photos/0GaFhJuJTawk7fZwaogVDCXqw https://share.icloud.com/photos/0JNNJolGZuyZVZ9iTSpWPHAEg	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 36: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635716.134 N: 160280.3988 Z: - 1.411992773
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 37:

Filenames:	https://share.icloud.com/photos/0H098YtM2cUEL6WrXjoyU_xxA https://share.icloud.com/photos/0ckXG4Zt2_mNfEu7e2K2RsMFQ	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 37: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635578.1351 N: 160243.5868 Z: -0.444492463
Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 40:

Filenames:	https://share.icloud.com/photos/0QQ6OufcnJ7WfG1E9_IRvSWnQ https://share.icloud.com/photos/0mYTVImKw1AisU5yNIZhcuuUg	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 40: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 636068.6586 N: 160571.8744 Z: - 2.332941727
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 43:

Filenames:	https://share.icloud.com/photos/03dN9HVuKN_sxa6UtnnnWr4gA https://share.icloud.com/photos/0pNTVoS9GI_iUkmtpw9w5-h8g	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	ITEM_ID 43: Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 636037.7337 N: 160564.1126 Z: -2.212857803
Period Time:	Industrial/Modern	Creation Date:	06/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

ITEM_ID 44:

Filenames:	https://share.icloud.com/photos/0UHuRHd1K1s99GUxCSLkphotoA https://share.icloud.com/photos/0d9PLiWbckh2tjBAH-EI7tXCQ	Copyright Holder:	Paul Crame / Citizen.Org
Caption:	Anti-Aircraft Landing Pole	Location:	Sandwich Bay Kent UK
Subject Keywords:	intertidal wooden pole, anti-winged glider pole, passive coastal defences, World War Two, WWII, Kent	Coordinates:	E: 635843.5154 N: 160711.3413 Z: -1.630248136

Period Time:	Industrial/Modern	Creation Date:	07/11/21
Period Date:	1939-45	Software Used:	Apple iPhone iOS
Creator:	Paul Crame	Version:	12

Appendix 6: 2020 Dataset

Dataset_2020					
Item_ID	Date_2020	Eastling	Northing	Z - Coord	Diameter - (cm)
1	03/12/2020 -	635785.129	160298.6628	-1.932473687	8
2	03/12/2020 -	635815.11	160411.8525	-1.748088856	12
3	03/12/2020 -	635808.6475	160443.4433	-1.767779088	8.5
4	03/12/2020 -	635774.6101	160614.0886	-1.634009551	9
5	03/12/2020 -	635770.3516	160640.0641	-1.662805087	12
6	03/12/2020 -	635752.2871	160747.4574	-1.417791577	7.5
7	03/12/2020 -	635748.1746	160773.399	-1.442240522	7.5
8	03/12/2020 -	635744.3796	160795.943	-1.395857306	7.5
9	03/12/2020 -	635743.7711	160799.6071	-1.400261649	7
10	03/12/2020 -	635739.7642	160823.3904	-1.415067033	7.5
11	03/12/2020 -	635750.8087	160889.1729	-1.380616022	8.8
12	03/12/2020 -	635740.3282	160691.0617	-1.47205704	9.19
13	03/12/2020 -	635706.3925	160684.4804	-1.507888505	9.8
14	03/12/2020 -	635674.5408	160678.516	-1.238089043	9.69
15	03/12/2020 -	635639.6517	160671.6902	-1.13569869	7.1
16	03/12/2020 -	635608.2398	160665.9251	-0.924833994	7.5
17	03/12/2020 -	635787.612	160898.5048	-1.430982259	8
18	03/12/2020 -	635951.4174	160761.1494	-1.809733605	5
19	03/12/2020 -	635907.1327	160723.2015	-1.753910827	10
20	03/12/2020 -	635960.8328	160706.6813	-1.914389128	8
21	03/12/2020 -	635714.5804	160879.6202	-1.321614241	9
22	03/12/2020 -	635683.7261	160871.5452	-1.193130007	8
23	03/12/2020 -	635637.2535	160864.3237	-1.080433991	10
24	03/12/2020 -	635593.1674	160857.49	-1.049062185	11
25	03/12/2020 -	635555.5493	160851.6433	-0.962826858	12
26	18/09/2020 -	635943.489	160730.1568	-1.831387348	8.1
27	18/09/2020 -	635954.7407	160741.4455	-1.82783688	7.9
28	18/09/2020 -	635951.4073	160761.1484	-1.797163869	7.7
29	19/09/2020 -	635808.2883	160443.8439	-1.659010122	8
30	19/09/2020 -	635815.2035	160411.9722	-1.738622225	12
31	19/09/2020 -	635812.819	160398.8104	-1.689264757	4
32	19/09/2020 -	635813.1255	160400.4684	-1.698484524	3.8
33	19/09/2020 -	635829.7165	160348.8198	-1.871397564	9.5
34	19/09/2020 -	635819.3917	160307.3817	-1.822607782	7.5
35	19/09/2020 -	635750.3494	160289.5376	-1.623734474	10.19
36	19/09/2020 -	635716.134	160280.3988	-1.411992773	9.5
37	19/09/2020 -	635578.1351	160243.5868	-0.444492463	10.1
38	20/09/2020 -	636004.9281	160556.1418	-2.148469362	9.1

Dataset_2020					
Item_ID	Date_2020	Eastling	Northing	Z - Coord	Diameter - (cm)
39	20/09/2020 -	636068.6586	160571.8744	-2.332941727	9
40	20/09/2020 -	636049.6702	160565.6446	-2.19090427	3.9
41	20/09/2020 -	636046.7941	160564.6882	-2.106920715	3.8
42	20/09/2020 -	636037.7337	160564.1126	-2.212857803	8.4
43	20/09/2020 -	635843.5154	160711.3413	-1.630248136	8.3
44		0	0	0	0

Appendix 7: 2021 Dataset

Dataset_2021														
Item_ID	Date_2020	Date_2021	Eastling	Northing	Z - Coord	Height - (m)	Diameter - (cm)	Tool_Marks	Round_Wood	Hard_wood	Attachments_on_pole	Image_Data_Scale_URL	Image_Data_URL	Notes
1	03/12/2020 - 2021	07/11/2021	635785.129	160298.6628	-1.932473687	0	8	No	No	No	No	N/A	N/A	AALP not found
2	03/12/2020 - 2021	07/11/2021	635815.11	160411.8525	-1.748088856	0	12	No	No	No	No	N/A	N/A	AALP not found
3	03/12/2020 - 2021	07/11/2021	635808.6475	160443.4433	-1.767779088	130	8.5	No	Yes	Yes	No			
4	03/12/2020 - 2021	07/11/2021	635774.6101	160614.0886	-1.634009551	120	9	No	Yes	Yes	No			
5	03/12/2020 - 2021	06/11/2021	635770.3516	160640.0641	-1.662805087	180	12	No	Yes	Yes	No			
6	03/12/2020 - 2021	06/11/2021	635752.2871	160747.4574	-1.417791577	80	7.5	No	Yes	Yes	No			
7	03/12/2020 - 2021	06/11/2021	635748.1746	160773.399	-1.442240522	70	7.5	No	Yes	Yes	No			
8	03/12/2020 - 2021	06/11/2021	635744.3796	160795.943	-1.395857306	0	7.5	No	No	No	No	N/A	N/A	AALP not found
9	03/12/2020 - 2021	06/11/2021	635743.7711	160799.6071	-1.400261649	110	7	No	Yes	Yes	No			

Dataset_2021														
Item_ID	Date_2020	Date_2021	Eastling	Northing	Z - Coord	Height - (m)	Diameter - (cm)	Tool_Marks	Round_Wood	Hard_wood	Attachments_on_pole	Image_Data_Scale_URL	Image_Data_URL	Notes
10	03/12/2020	06/11/2021	635739.7642	160823.3904	-1.415067033	120	7.5	No	Yes	Yes	No			
11	03/12/2020	06/11/2021	635750.8087	160889.1729	-1.380616022	220	8.8	No	Yes	Yes	No			Sapwood present
12	03/12/2020	07/11/2021	635740.3282	160691.0617	-1.47205704	260	9.19	No	Yes	Yes	No			
13	03/12/2020	07/11/2021	635706.3925	160684.4804	-1.507888505	160	9.8	No	Yes	Yes	No			
14	03/12/2020	07/11/2021	635674.5408	160678.516	-1.238089043	150	9.69	No	Yes	Yes	No			
15	03/12/2020	07/11/2021	635639.6517	160671.6902	-1.13569869	170	7.1	No	Yes	Yes	No			
16	03/12/2020	07/11/2021	635608.2398	160665.9251	-0.924833994	280	7.5	No	Yes	Yes	No			Sapwood present
17	03/12/2020	06/11/2021	635787.612	160898.5048	-1.430982259	140	8	No	Yes	Yes	No			
18	03/12/2020	06/11/2021	635951.4174	160761.1494	-1.809733605	0	5	No	No	No	No	N/A	N/A	AALP not found

Dataset_2021														
Item_ID	Date_2020	Date_2021	Eastling	Northing	Z - Coord	Height - (m)	Diameter - (cm)	Tool_Marks	Round_Wood	Hard_wood	Attachments_on_pole	Image_Data_Scale_URL	Image_Data_URL	Notes
19	03/12/2020 - 20	06/11/2021	635907.1327	160723.2015	-1.753910827	200	10	No	Yes	Yes	No			
20	03/12/2020 - 20	06/11/2021	635960.8328	160706.6813	-1.914389128	400	8	No	Yes	Yes	No			
21	03/12/2020 - 20	06/11/2021	635714.5804	160879.6202	-1.321614241	160	9	No	Yes	Yes	No			
22	03/12/2020 - 20	06/11/2021	635683.7261	160871.5452	-1.193130007	0	8	No	No	No	No	N/A	N/A	AALP not found
23	03/12/2020 - 20	06/11/2021	635637.2535	160864.3237	-1.080433991	230	10	No	Yes	Yes	No			Sapwood present
24	03/12/2020 - 20	06/11/2021	635593.1674	160857.49	-1.049062185	160	11	No	Yes	Yes	No			sapwood present
25	03/12/2020 - 20	06/11/2021	635555.5493	160851.6433	-0.962826858	230	12	No	Yes	Yes	No			
26	18/09/2020 - 20	06/11/2021	635943.489	160730.1568	-1.831387348	600	8.1	No	Yes	Yes	No			
27	18/09/2020 - 20	06/11/2021	635954.7407	160741.4455	-1.82783688	300	7.9	No	Yes	Yes	No			

Dataset_2021														
Ite m_ ID	Date _2020	Date _2021	Eastli ng	Nort hing	Z - Coord	Hei ght - (m m)	Dia met er - (cm)	Tool _Mar ks	Roun d_Wo od	Hard _wo od	Attachme nts_on_p ole	Image_Da ta_Scale_ URL	Image_ Data_U RL	Not es
28	18/09/2020 -	06/11/2021	635951.4073	160761.1484	-1.797163869	0	7.7	No	No	No	No	N/A	N/A	AALP not found
29	19/09/2020 -	07/11/2021	635808.2883	160443.8439	-1.659010122	85	8	No	Yes	Yes	No			
30	19/09/2020 -	07/11/2021	635815.2035	160411.9722	-1.738622225	0	12	No	No	No	No	N/A	N/A	AALP not found
31	19/09/2020 -	07/11/2021	635812.819	160398.8104	-1.689264757	0	4	No	No	No	No	N/A	N/A	AALP not found
32	19/09/2020 -	07/11/2021	635813.1255	160400.4684	-1.698484524	0	3.8	No	No	No	No	N/A	N/A	AALP not found
33	19/09/2020 -	07/11/2021	635829.7165	160348.8198	-1.871397564	0	9.5	No	No	No	No	N/A	N/A	AALP not found
34	19/09/2020 -	07/11/2021	635819.3917	160307.3817	-1.822607782	75	7.5	No	Yes	Yes	No			
35	19/09/2020 -	07/11/2021	635750.3494	160289.5376	-1.623734474	35	10.19	No	Yes	Yes	No			Diameter less than recorded

Dataset_2021														
Ite m_ ID	Date _ 2020	Date _202 1	Eastli ng	Nort hing	Z - Coord	Hei ght - (m m)	Dia met er - (cm)	Tool _Mar ks	Roun d_Wo od	Hard _wo od	Attachme nts_on_p ole	Image_Da ta_Scale_ URL	Image_ Data_U RL	Not es
														in 202 0
36	19/0 9/20 20-	07/1 1/20 21	6357 16.13 4	1602 80.39 88	- 1.411 9927 73	65	9.5	No	Yes	Yes	No			
37	19/0 9/20 20 -	07/1 1/20 21	6355 78.13 51	1602 43.58 68	- 0.444 4924 63	120	10. 1	No	Yes	Yes	No			
38	20/0 9/20 20 -	06/1 1/20 21	6360 04.92 81	1605 56.14 18	- 2.148 4693 62	0	9.1	No	No	No	No	N/A	N/A	AAL P not fou nd
40	20/0 9/20 20 -	06/1 1/20 21	6360 68.65 86	1605 71.87 44	- 2.332 9417 27	250	9	No	Yes	Yes	No			
41	20/0 9/20 20 -	06/1 1/20 21	6360 49.67 02	1605 65.64 46	- 2.190 9042 7	0	3.9	No	No	No	No	N/A	N/A	AAL P not fou nd
42	20/0 9/20 20 -	06/1 1/20 21	6360 46.79 41	1605 64.68 82	- 2.106 9207 15	0	3.8	No	No	No	No	N/A	N/A	AAL P not fou nd
43	20/0 9/20 20 -	06/1 1/20 21	6360 37.73 37	1605 64.11 26	- 2.212 8578 03	340	8.4	No	Yes	Yes	No			Exp ose d low er half of the stu mp - stor

Dataset_2021														
Ite m_ ID	Date _ 2020	Date _202 1	Eastli ng	Nort hing	Z - Coord	Hei ght - (m m)	Dia met er - (cm)	Tool _Mar ks	Roun d_Wo od	Hard _wo od	Attachme nts_on_p ole	Image_Da ta_Scale_ URL	Image_ Data_U RL	Not es
														m shif t san d?
44	20/0 9/20 20 -	07/1 1/20 21	6358 43.51 54	1607 11.34 13	- 1.630 2481 36	50	8.3	No	Yes	Yes	No			
45			0	0	0	0	0	No	No	No	No			