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Date: 23rd February 2016

Reference: AQUILA/PDR-CON-29

South Holland District Council
Council Offices
Priory Road
Spalding
PE11 2XE

For the attention of the Planning Department

Dear Sir/Madam

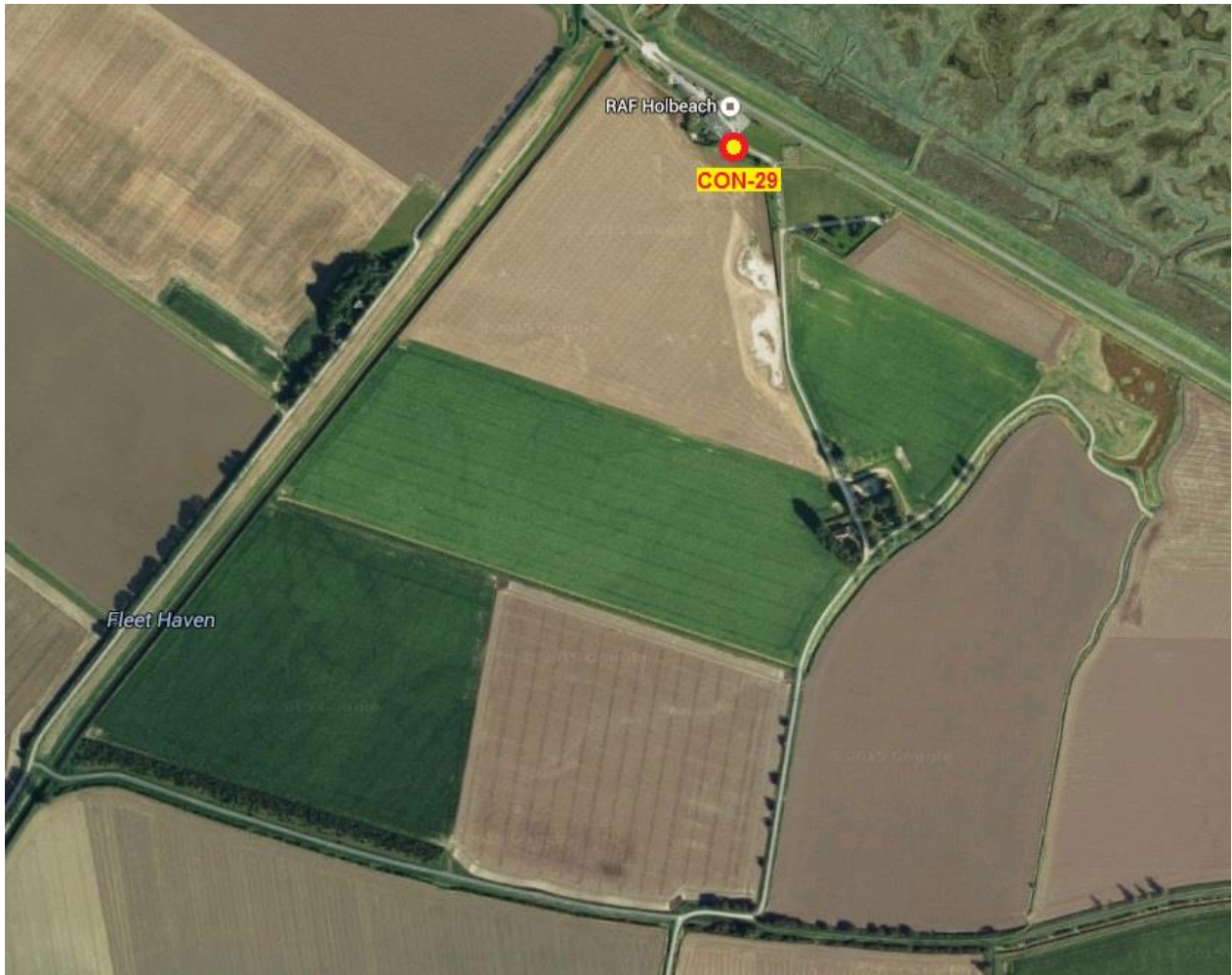
The Provision of Marshall Programme Air Traffic Management Services

Planning Application: RAF Holbeach, Durham's Rd, Spalding, PE12 9NJ.

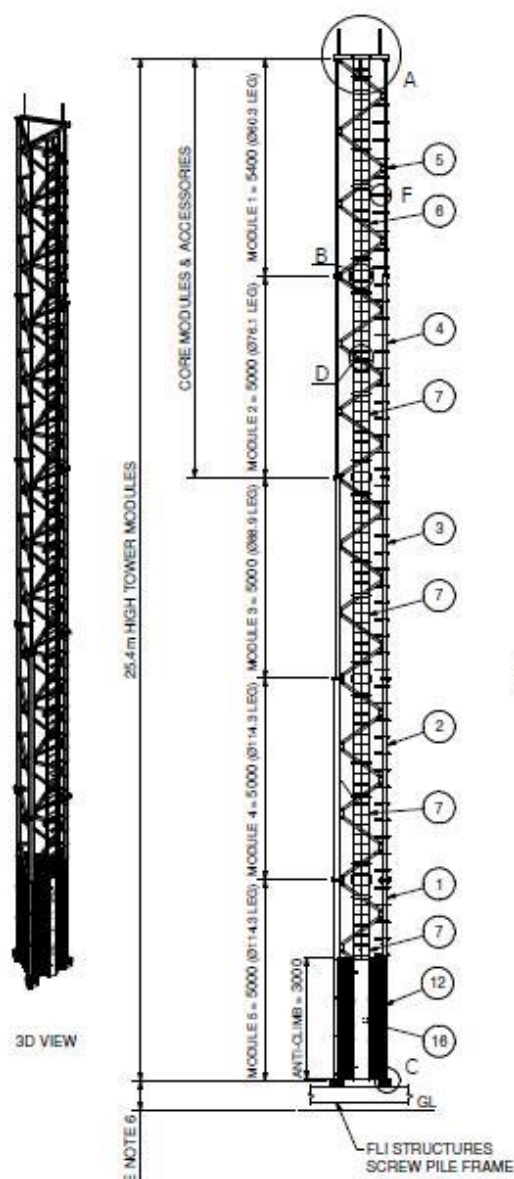
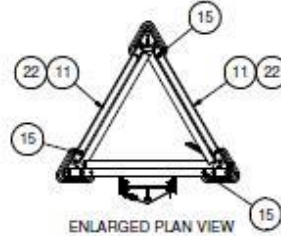
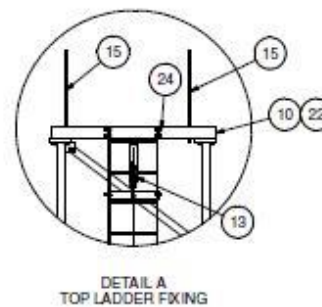
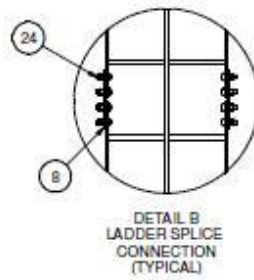
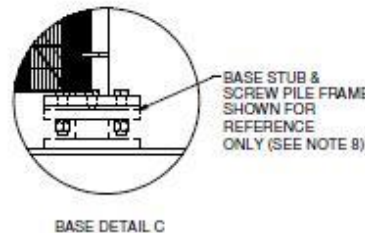
1. Aquila Air Traffic Management Services LTD (Aquila) is instructed by the Ministry of Defence (MOD) to submit a full planning application for the installation of a Wide Area Multilateration (WAM) mast at RAF Holbeach.
2. The MoD determined the most appropriate action is to proceed with a full planning application with the local authority to arrive at a decision regarding the WAM mast installation at RAF Holbeach.
3. In 2014, the Ministry of Defence (MOD) entered into a 22 year Project Agreement (Contract) with Aquila to supply Military Air Traffic Control services across UK and overseas. The programme of work is being delivered under the name of the Marshall Programme and includes provision of existing Air Traffic Services and support, with a six-year upgrade programme during which selected equipment and technologies will be replaced and upgraded.
4. A critical element of this upgrade is to meet Civil Aviation Authority and Military Aviation Authority legislative requirements for aircraft surveillance "Mode S" compliance, which will involve the installation of a network of Wide Area Multilateration (WAM) aerial masts and ground stations and Wide Area Network (WAN) microwave link masts and communications equipment.
5. Where possible, the equipment will utilise existing masts and structures but there are a number of sites where it will be necessary to install new structures to achieve the required coverage of airspace, RAF Holbeach requires a new mast as all other options to locate the WAM/WAN equipment have been exhausted on the site.
6. At RAF Holbeach, Aquila as Service Provider for the MOD, are proposing to install one mast (with associated equipment) referred to as CON-29. The details of the installation are as follows:

- | | |
|-----------------|---|
| a. Installation | WAM and WAN site |
| b. Location | 52.87336N 0.13739E (52°52'24.1"N 0°08'14.6"E) |
| c. Height | Mast = 25m, Overall = 29m |
| d. Equipment | 1 x mast, 4 x antennas. |

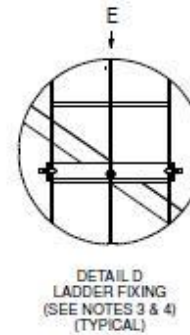
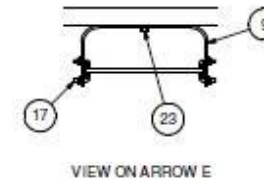
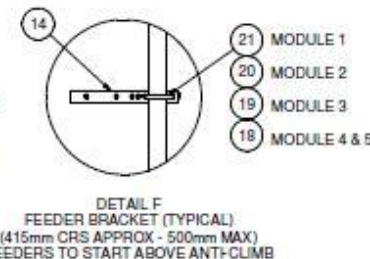
2. The location of installation CON-29 in relation to RAF Holbeach is shown by a red and yellow circle in the picture below:



3. The mast is a commercial product of modular design, supplied by FLI Structures. It is assembled from a number of galvanized steel sections, each approximately 5m tall. The number of sections used varies according to the required mast height, but the drawing on the next page shows the general design and construction.



25.4m HIGH SLP4 TOWER					
ITEM	Drwg No.	PART No.	DESCRIPTION	Wt (kg)	QTY
1	4200-5	TS709	SLP4 MODULE 5	541.9	1
2	4200-4	TS708	SLP4 MODULE 4	515.7	1
3	4200-3	TS707	SLP4 MODULE 3	399.5	1
4	4200-2	TS706	SLP4 MODULE 2	385.3	1
5	4200-1	TS705	SLP4 MODULE 1	348.1	1
6	581-2652	LS377	LADDER SECTION (22 RUNGS)	50.8	1
7	R17A1	R17A1	LADDER SECTION (20 RUNGS)	48.0	4
8	R17P1	R17P1	LADDER SPLICE PLATE	0.6	8
9	581-2651	LF977	LADDER FIXING	3.0	20
10	4200-44	LF978	TOP LADDER FIXING/TOP TIE	15.5	1
11	4200-45	SA184	TOP TIE	8.8	2
12	4200-43	ACD235	SLP4 ANTI-CRIMP ASSEMBLY	95.3	1
13	581-1881	LWA185	LATCHWAYS FALL ARREST ASSEMBLY	---	1
14	3800-22	FB291	UNIVERSAL FEEDER BRACKET	1.0	51
15	131-930	LTF47	M16 x 750mm LG LIGHTNING FINAL	1.3	3
16	---	---	NR SIGN PLATE	0.1	1
17	SK1417	---	RECT BOLT M10x64 CRS	0.1	40
18	---	---	U-BOLT M12x129 CRS (Ø114.3 CHS)	0.4	17
19	---	---	U-BOLT M12x103 CRS (Ø88.9 CHS)	0.3	12
20	---	---	U-BOLT M12x91 CRS (Ø76.1 CHS)	0.3	12
21	---	---	U-BOLT M12x75 CRS (Ø60.3 CHS)	0.2	10
22	---	---	M16x60 LG B-N-PALNUT	0.1	8
23	---	---	M16x50 LG B-N-PALNUT	0.1	20
24	---	---	M12x40 LG C'HD B-N-PALNUT	0.1	36
25	---	SPARES	M16x60 LG B-N-PALNUT	0.1	2
26	---	SPARES	M16x50 LG B-N-PALNUT	0.1	2
27	---	SPARES	M12x40 LG C'HD B-N-PALNUT	0.1	2



DO NOT SCALE
IF IN DOUBT, ASK

FLI structures

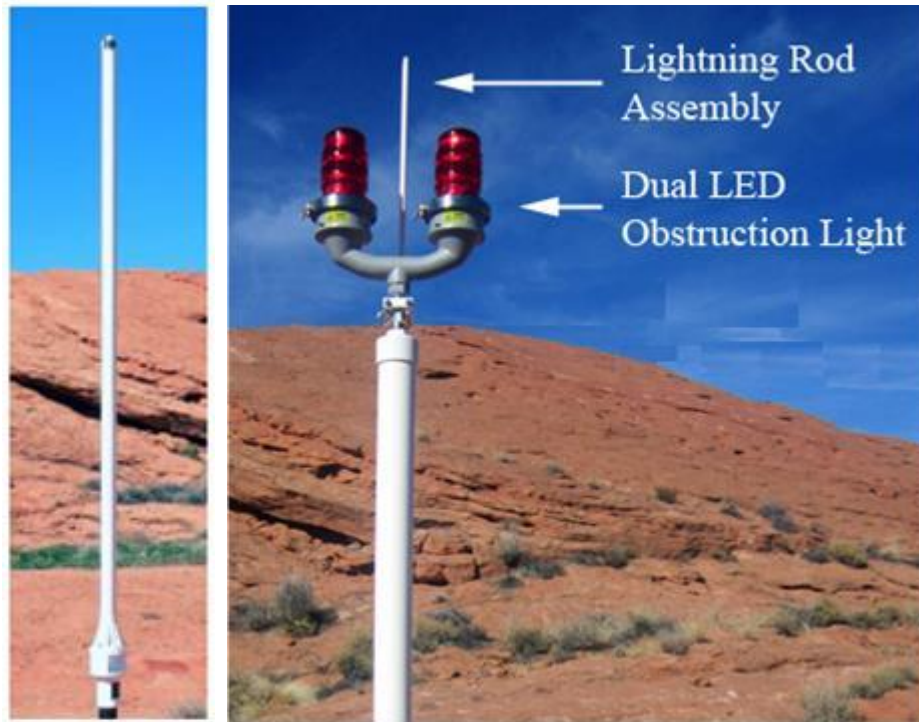
25.4m HIGH SLP4 TOWER
202001 STEEL FRAMEWORK
W/ LADDER, FALL ARREST
& ANTI-CRIMP & FEEDER BRACKETS

2893.6 kg

NR-0386

B

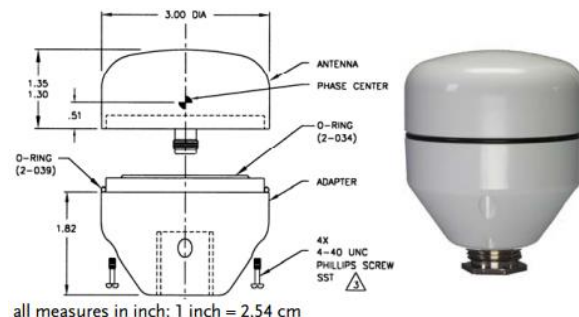
4. The WAM antenna is a 3.4m in height thin “pole” type and coloured white. It supports a pair of red obstruction lights and a lightning rod as shown in the illustration below.



5. The dish reflector of a WAN microwave antenna is 30cm (1ft) in diameter and neutral in colour. The two WAM antennas are mounted on the mast at heights of 16m and 12m above ground level.
6. An illustration of a WAN microwave antenna is shown on the right.



7. A small GPS antenna is mounted on the top of the mast, at a height of 25m. This GPS antenna is 3” in diameter and just over 3” in height.
8. An illustration of the GPS microwave antenna is shown on the right.



9. The electronic equipment associated with the new installation is contained within the existing buildings. No external equipment cabinets are required.

10. Please find enclosed:

- a. New Mast Installation (As Existing) (Drawing DS99100 FA 101A SPT, issue 3, date 8-2-16 (Sheet 1 of 3))

- b. New mast Installation (As proposed) plan illustrating the position of the equipment (Drawing DS99100 FA 101A SPT, issue 33, date 8-2-16 (Sheet 2 of 3)
- c. New mast Installation site location plan, boundaries of site plan DS99100 FA 100A SPT issue 3, date 08-02-16 (sheet 3 of 3)
- d. Letter of Authority from the MOD in support of these works (MOD Ref: Holbeach WAM PDR)
- e. Screening letter reference xxxx Delivery end February wc 7-3-16
- f. Pre-application advice was received from South Holland consultation was between Angus Martin (AMEC) and David Gedney

This equipment is required in support of military operations, within an operational MoD establishment.

The position of the proposed mast is defined DS99100 FA 100A SPT issue 3, date 08-02-16 (sheet 3 of 3) and this relates to 52.87336N 0.13739E (52°52'24.1"N 0°08'14.6"E). It should be noted for consideration in the planning application that the final location of the mast may very well move, this could result from highly complex design parameters to achieve satellite dish line of sight, terrain coverage and site specific conditions resulting from opening up such as soil conditions bearing capabilities, existing structures, services etc.

With that in mind it is proposed the following maximum movements in any direction would apply using the principle of always being 4 metres within the site boundary fence line. The maximum distance the mast may move and still remain within the site boundary is detailed in table 1 below. It should be noted that it is not anticipated the mast should move from the planned position. It is more around de-risking the project and the declaration of material facts have been made to the local planning department to help form the decision on planning approval.

	West (excluded due to existing structure)	North distance from boundary	South distance from boundary	East distance from boundary
Metres	-	49m	8m	19m

Table 1: Maximum distance in any direction from to 52.87336N 0.13739E (52°52'24.1"N 0°08'14.6"E) to within 4 metres of the site boundary fence line.

Any change from 52.87336N 0.13739E (52°52'24.1"N 0°08'14.6"E) will be communicated to the local authority.

Yours faithfully
Aquila Air Traffic Management Services Limited

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Transition Manager

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