

RISK AND METHOD STATEMENT

LIZARD LIGHTHOUSE

Contents

INTRODUCTION.....	2
ACCESS.....	3
SET TO WORK AND TESTING OF EQUIPMENT	5
CONNECTING TO MAINS POWER.....	6
ACCIDENT/ INCIDENT REPORTING	6
DRUGS AND ALCOHOL.....	7
EMERGENCY CONTACTS.....	7
ENVIRONMENT	7
METHODS OF WORK.....	7
RISK ASSESSMENT	8
SITE INDUCTION PROCEDURE	8
STAFF/ CONTRACTOR COMPETENCY	8
SURVEY PROCEDURES.....	8

INTRODUCTION

This document presents the method statement for the deployment of SiriusInsight (SI) Mobile Sensor Suite (MSS) at the Trinity House (TH), Lizard Lighthouse site (SHL). The Lighthouse is the location for the MSS and is shown in Figure 1.1 and 1.2. SI safely and successfully carried out a previous deployment of MSS equipment at Trinity House sites at Strumble Head and St Catherines and numerous other UK sites from Dec 2020 to date.

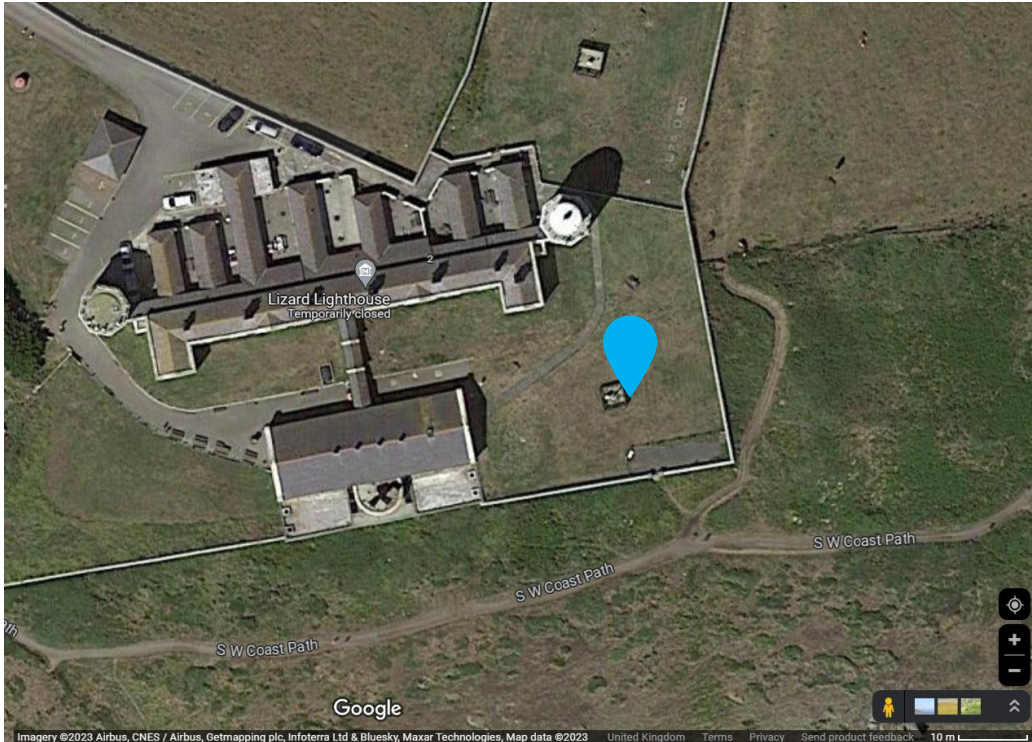


Figure 1.1



Figure 1.2

The purpose of the project is to deliver maritime surveillance and situational awareness through the collection of data from radar, cameras and other sensors, to the Joint Maritime Security Centre (JMSC). The MSS are mobile in that they must be movable to a new site within 24 hours of a re-tasking by the JMSC.

If any aspect of the operation has to change from the pre-agreed approach, such as a change in site, method of erecting the MSS or the substitution of a key item of equipment, the on-site personnel are to make consideration of the change in circumstances and re-brief all personnel accordingly prior to proceeding.

The MSS is positioned on a temporary basis for a period of not more than 3 months (up to 31 Jan 24). The sensors which comprise the MSS are mounted on a man-portable tower shown in figure 1.3. This shall be elevated to 3m height above ground level.



Figure 1.3

ACCESS

Access to the site is determined by TH. SI personnel will liaise with the Lighthouse Attendant for access. Access to the MSS is strictly prohibited other than by SI personnel.

TRANSPORT EQUIPMENT TO SITE

The man-portable tower, sensors (radar, cameras, AIS, and Electro-Magnetic aerials) processor box and ancillary equipment shall be transported to site by road. The journey will be pre-planned to maximise driving time during daylight hours. A detailed weather forecast will be studied prior to the journey; alternative routes will also be planned in case extreme weather is forecasted and to avoid known accident black spots.

A pre-journey vehicle check will be conducted, this will include tyre checks (both tread depths and pressures), oil and screen wash. Larger distances will be maintained from the car in front for the duration of the journey. An emergency first aid kit will be kept in the van at all times. Drivers will also have spare clothes to hand for extra warmth.

On arrival at the site a familiarization tour will be carried out for all personnel with the Registered Lighthouse Keeper (RLK). The equipment will then be moved by hand to the site for construction.

The equipment is to be mounted on a specialist man-portable tower at Lizard Lighthouse, this is shown in figure 1.3. The only other equipment will be a 13A, 240V power cable and electrical installations will be in accordance with the **electrical wiring regulations BS 7671**.

Connection to the power supply is to be provided by TH.

EQUIPMENT SET UP ON SITE

Three personnel are expected to attend for the set-up on a date to be agreed between TH and SI and for decommissioning at the end of the period. The set-up is expected to be achieved within one day, with a further day for testing and troubleshooting. One additional vehicle will be present for these activities and periodically to inspect and service the MSS equipment.

On arrival at site, a site-specific meeting will be held between SI personnel, TH Staff and the lighthouse attendant, to conduct a familiarization tour and discuss the approach to the set-up at the site. A dynamic risk assessment will be conducted to identify any further hazards from those already noted and to identify any hazards associated with the movement of kit to the lighthouse and the set-up operation; the appropriate mitigation measures will be put in place. The site will be continually and dynamically risk assessed utilizing the five steps

to risk assessment process as prescribed in the risk assessment. This will include an extra vigilant pre-inspection of the site, ensuring all surfaces are safe to work on, e.g. any stairs or steps and ensuring ground conditions are suitable for set-up (This will also include ensuring appropriate footwear is worn for underfoot conditions).

Emergency supplies will be kept at hand, including, food, drink and first aid. Personnel will have a daily forecast, and should conditions deteriorate considerably, work will stop and they will leave the site. SI personnel will be accommodated in a local hotel near to the site offering access to warm clothing and food supplies if required.

Part of the dynamic risk assessment will include the transportation of the kit from nearest parking area to the agreed site by foot. Once the risk assessment is completed and the preferred approach has been identified, the on-site SI team leader will decide whether it is safe or not to proceed.

There is no working above 3m but any activity on the step ladder will have a safety number in attendance. Personnel will wear the appropriate personal protection equipment (safety boots, hard hat, gloves, hi-vis vest and harnesses); no-one will be working on the ground directly underneath equipment being affixed as it is not high enough. All personnel have completed appropriate HSE training.

All operations shall be carried out during daylight hours. Discussions shall take place with the site manager as to their emergency procedures for the site being utilised.

Equipment shall be installed in the following order.

- Install tower and sensors
- Install communications and data cabinet (next to tower)
- Connect to mains supply (connected through RCD)
- Ensure no hazards exist.

SET TO WORK AND TESTING OF EQUIPMENT

- Calibrate radar
- Check camera function

-
- Check AIS
 - Check EM and other sensors reception
 - Check communications connectivity
 - Testing and troubleshooting will take place over 1 to 2 days

CONNECTING TO MAINS POWER

Trinity House has agreed to provide mains power and will advise on the best routing for the cable and methods for securing. In line RCD will be installed and armored cable will be utilized; they will be secured to ensure that no risk exists.

DECOMMISSIONING OF EQUIPMENT

Once the contract is complete (and if no follow on contract is in place) the equipment must be removed and the site made good. The same procedures applied during installation of equipment shall be applied with the site tidied. Removal of equipment shall take place during daylight hours. All rubbish shall be removed, leaving the site in the same condition as on arrival.

ACCIDENT/ INCIDENT REPORTING

Any accident or incident arising in relation to the SI MSS, structure, or power supply to the MSS, is to be reported by the most expeditious method to

SI Contacts

Dave Fagg, Compliance Manager

07983 610585

dave.fagg@siriusinsight.ai

Noting:

- Time of occurrence
- Name of person(s) involved
- Nature of the accident/incident
- Action taken
- Subsequent actions planned or required

DRUGS AND ALCOHOL

Consumption of drugs and alcohol is strictly forbidden by SI personnel when on site.

EMERGENCY CONTACTS

As above for Accident/Incident reporting

And

Malcolm Glaister, CEO

malcolm.glaister@siriusinsight.ai

07740625007

ENVIRONMENT

The SI equipment does not include any hazardous or environmentally damaging substances or emissions. Staff shall take all necessary precautions to protect the environment. SI Staff shall pay due regard to the environment by acting to preserve air, animal and plant life and other environmental resources from the adverse effects of their activities, and to minimize any nuisance which may arise from such operations. SI Staff shall prevent the collection, removal, purchase and utilization directly or indirectly of local environmentally protected resources, including plants, animals, antique artefacts etc. for consumption, profit or any other purpose. No material or structures shall remain in the survey area with all garbage removed and disposed of in the correct manner, including recycled where possible.

The Tower and equipment is heavy and sits very firmly on the ground. Previous experience at many sites in past 3 years of operation in UK from Shetland Isles to Channel Islands (e.g. Storm Bella – December 2020) has shown that when skewered to the ground it is very secure even in very high winds.

METHODS OF WORK

SI personnel will follow the standards set by TH for construction and engineering work. Personnel will wear high-viz jackets, steel-toe capped boots and hard hats throughout the installation procedure.

RISK ASSESSMENT

SI has assessed the risks involved in the installation of the MSS at SHL and none of the risks have been rated above low. The highest risk assessed is the moving of equipment on site.

Staff have been appraised of the risks and management on site will ensure that due care is taken.

A separate RA has been submitted to Trinity House.

Radio Frequency Radiation Hazard Distances (RFRH)

Due to the height of the radar mounting there is no risk to humans of RFRH. The declared Public Safe Distance is 0.8m.

SITE INDUCTION PROCEDURE

SI personnel will receive an introduction to the site from TH staff and will pay due attention to any local or situation risks or procedures.

STAFF/ CONTRACTOR COMPETENCY

SI personnel will comprise competent and duly experienced engineers and senior management. SI is an accredited BMS company to standards including 9001 and 27001.

SURVEY PROCEDURES

Due to geographic limitations and pressing timescales, no prior site survey is scheduled, however extensive liaison between SI and TH personnel, in advance of the deployment, will ensure appropriate understanding of the site layout and the planned positioning of the equipment and power supply.