

QINETIQ PROPRIETARY

**MAGNETIC SURVEY
COMPASS CALIBRATION BASE
CAMBRIDGE AIRPORT**

Mr Ray Standley
25th August 2020
QinetiQ/MAS/43031993-0021
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Customer Information

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Document Control

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Amendment History

Issue Number	Delivery Date	Details of Change	Principal Author of Change
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1. COMPASS CALIBRATION BASE (CCB) SURVEY REPORT

CAMBRIDGE INTERNATIONAL AIRPORT

Reference A:

CAP 562 Book 2, Chapter 34, Leaflet 34 -10 - Compass Base Surveying

1.1 Introduction

Magnetic Range Officers from the QinetiQ magnetic survey team based at Portland Bill in Dorset visited Cambridge Airport on 18th August 2020. The purpose of this visit was to complete a routine magnetic survey of the CCB located on the Airfield, this survey was conducted in accordance with Ref A.

1.2 Survey Results

The results of the survey confirm that, in accordance with Ref A, the area meets the magnetic requirements of a Class 1 CCB. An analysis of magnetic deviations taken at random across the base gave a normal distribution of $\pm 0.1876^\circ$ (3σ value) and a mean of -0.0127° . It should be noted that this survey was conducted at a height of 5 feet above ground level (agl), certification only applies to the area within the datum circle at this height and above. QinetiQ Portland Bill should be consulted before the calibration of any compass system in which the magnetic sensor is below this level, as magnetic deviations may increase towards the ground and exceed limits set out at Ref A.

1.3 Certification

Please find Class 1 certificate of conformity enclosed for your retention, this certificate carries a five year validity, therefore this CCB will be due for routine magnetic survey in August 2025.

1.4 Acknowledgement

The Surveying Officers would like to thank Operations Staff at Cambridge Airport for their assistance and hospitality afforded during this visit, it was most appreciated.

1.5 Survey Equipment Used

The following survey equipment with present identification numbers was used to conduct this survey:

Bartington Gradiometer	AMC 0109500	Ferrous Search Instrument
Datum Compass (1)	43/HW/1A/91	Central Static Compass
Datum Compass (2)	54/HW/1A/91	Mobile Compass
Ferromaster Meter	Serial No. 192	Permeability Test
Datum Tripod	LN1	Central Fixed Tripod
Datum Tripod	LN2	Mobile Tripod

CAMBRIDGE INTERNATIONAL AIRPORT

Certificate of Compass Base Calibration

Applicant:	Dewhurst Airfield Services Ltd Grierson House Anchorage Business Park Chain Caul Way Preston Riversway Docklands Preston PR2 2YL
QinetiQ Assignment Number: 43031993-0021	

This is to certify that the Class 1 Compass Calibration Base (CCB) located at Cambridge Airport was subject to magnetic survey on 18th August 2020. The normal distribution of magnetic deviations across the CCB were found to be $\pm 0.1876^\circ$ (3σ value) about a mean of -0.0127° , this CCB conformed to Class 1 standards on the date of survey.

The following standards apply:

CAA/CAAIP CAP 562 Book 2, Chapter 34, Leaflet 34 -10 - Compass Base Surveying

COMPASS CALIBRATION BASE	CAMBRIDGE AIRPORT
CLASS OF CERTIFICATION	CLASS 1
DATE OF SURVEY	18th August 2020
EXPIRY DATE	18th August 2025
CERTIFICATE NUMBER	COM/03/2020

Mr Ray Standley



Magnetic Range Officer

Date: 25th August 2020

This certificate is issued in accordance with the measurement capability of the facility which operates a quality management system under the requirements of ISO 9001:2015. The units of measurement, where possible, are traceable to National Standards. The certificate only confirms that the CCB (compass calibration base) conformed to class 1 (or class 2) standards on the date of the survey. QinetiQ Portland Bill should be informed of any modifications intended, or carried out within 200 metres of the centre of the base, which may affect the magnetic integrity of the CCB during the certified calibration period. The following standards apply: Civil Aircraft Airworthiness Information and Procedures (CAP) 562 – Book 2, Chapter 34 Navigation, Leaflet 34-10 Compass Base Surveying.

2 Annexes

2.1 Annex 1 - List of Contacts

Project Role	Name	Contact Details
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