



CAE (UK) plc
Defence & Security
Innovation Drive
Burgess Hill
West Sussex RH15 9TW
England

Tel +44 (0)1444 247535

Project 127115

CARBON REDUCTION PLAN

14-003-2935

Issue 03

October 2023

Prepared by:

Shaun Kite

Environmental Officer

CAE (UK) plc Defence & Security

Approved by:

David Bentley

General Manager CAE UK; Managing Director CAE (UK) plc & CAE ATS plc

Defence & Security

This document is Copyright © CAE (UK) plc, 2023. All information contained in this document/record is proprietary to CAE (UK) plc (except where stated otherwise) and is made available in strict confidence; it may not be used, disclosed or reproduced, in part or as a whole, in any form whatsoever without prior written permission of CAE (UK) plc. Such permission may be given by contract.

This document contains trade secrets and/or sensitive commercial and/or financial information as of the date provided to the original recipient by CAE (UK) plc. Following a request for information in accordance with the Freedom of Information Act 2000 public authorities are to consult with CAE (UK) plc prior to the decision to release all or part of this document.

Document History Sheet




Issue Number	DCR Number	Amended Pages	Approved By (Signature)	Date
1	-	None (First Issue)	 Matt Disney	July 2022
2	4285	Approver modified to Dave Bentley. Changes made to Electric Car Leasing scheme.	 David Bentley	November 2022
3	4320	Updated with latest emissions data (Scope 1, 2 & 3) and FY23 specific information, as provided by CAE inc. New ISO 14001 Certificate.	 David Bentley	October 2023

Table of Contents

1	Introduction	1
1.1	Declaration and Sign Off	1
2	REFERENCE DOCUMENTS	2
2.1	External Documents	2
2.2	Internal Documents	2
3	Commitment to Achieving Net Zero	3
4	Carbon Inventory: Emissions	6
4.1	Baseline Emissions Footprint.....	6
4.2	Current Emissions Reporting	7
5	Carbon Reduction	8
5.1	Emissions Reductions Targets.....	8
5.2	Carbon Reduction Initiatives	8
5.2.1	Green Buildings.....	8
5.2.2	Simulators and Product Upgrades.....	9
5.2.3	Electric Aircraft.....	10
5.2.4	Green Sourcing.....	10
5.2.5	Others	10
5.2.6	Future Carbon Reduction Initiatives	12
5.2.7	Future Carbon Reduction Targets	12
	Annex A - ISO 14001 Certificate	A

List of Tables

Table 2-1	External Documents.....	2
Table 2-2	Internal Documents	2
Table 4-1	Baseline Emissions Footprint	7
Table 4-2	Current Emissions Reporting.....	7

List of Figures

Figure 1	– CAE’s Carbon Neutrality Journey.....	4
Figure 2	- Scope 1 & 2 Emissions Reduction by Financial Year	6
Figure 3	– ISO 14001 Certificate (Burgess Hill).....	A
Figure 4	– ISO 14001 Certificate (UK Military Sites).....	B

1 Introduction

The UK Government amended the Climate Change Act 2008 in 2019 by introducing a target of at least a 100% reduction in the net UK carbon account (i.e. reduction of greenhouse gas emissions, compared to 1990 levels) by 2050. This is known as the 'Net Zero' target.

This Carbon Reduction Plan (CRP) will provide details on CAE's carbon emissions and any current / future carbon reduction initiatives as well as CAE UK plc's commitment to achieving Net Zero in UK operations by 2050.

1.1 Declaration and Sign Off

CAE confirms that this Carbon Reduction Plan has been completed in accordance with the UK Government document PPN 06/21 and the associated guidance and reporting standard for Carbon Reduction Plans (CRPs).

Emissions have been reported and recorded in accordance with the published reporting standard for CRPs and the Greenhouse Gas (GHG) Corporate Accounting and Reporting Standard and use the appropriate Government emission conversion factors for GHG company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for CRPs and the Corporate Value Chain (Scope 3) Standard.

This CRP has been reviewed and signed off by the Senior Management Team, as per the Document History Sheet (page ii).

2 REFERENCE DOCUMENTS

This document is based on or references the documents shown in the following sections.

2.1 External Documents

Table 2-1 External Documents

Document Ref.	Title	Revision
PPN 06/21	Taking Account of Carbon Reduction Plans in the procurement of major government contracts	05/06/2021
	CAE Annual Activity and Corporate Social Responsibility Report	Latest
	Global Annual Activity and Sustainability Report	Fiscal Year 2023

2.2 Internal Documents

Table 2-2 Internal Documents

Document Ref.	Title	Revision
14-003-2424	CAE (UK) plc, Environmental Manual	Latest
CAE360	CAE Intranet	-
	Quality Management System	Latest

3 Commitment to Achieving Net Zero

CAE recognises climate change as a defining global issue and understands that creating a sustainable future takes collective action. We remain committed to building sustainability into everything we do and to developing sustainable solutions.

In 2020, CAE became carbon neutral, compensating for its direct GHG emissions (scope 1), electricity indirect GHG emissions (scope 2) and emissions related to business travel of its employees by plane (partial scope 3) first through reduction initiatives and then by reducing our emissions at the source, through innovation in sustainable solutions and purchasing carbon offset credits equivalent to our residual emissions.

Over this period, CAE also undertook environmental measures to reduce its overall emissions, such as increasing the energy efficiency of our buildings. All CAE sites where we have operational control are now 100% sourced with renewable energy or covered by Energy Attribute Certificates (EACs). We are progressing on our multi-year LED installation program, with installation completed on 93% of our total floor area worldwide. Completion of this objective represents a potential emission reduction of more than 6,000 tonnes of carbon dioxide equivalent (tCO_{2e}) per year.

We operate a fleet of more than 200 training aircraft in our flight academies around the globe. Fuel consumption represents 75% of our Scope 1 carbon emissions. Aviation fuel is a fundamental component of our global decarbonization plan. Our strategy to reduce aviation fuel consumption targets, in part, the progressive integration of electric aircraft in CAE academies.

As part of our reduction strategy, we expect to convert up to 80 aircraft of our Piper Archer training fleet to electric and develop a curriculum for new pilots to train on the operation of electric aircraft. These electric aircraft will represent a potential savings of up to 6,500 tonnes of CO_{2e}. This initiative is part of Project Resilience, our investment in innovation announced in July 2021. We are also pursuing other opportunities with industry partners to develop electric aircraft technologies and advance digitally immersive solutions to contribute to the decarbonization efforts of the industry. We are also currently exploring options for the remainder of our fleet.

CAE also continually invests to make our Full-Flight Simulators (FFS) more energy efficient; our next generation FFSs are slated to use fewer materials that are also more recyclable. Gains in weight reduction come through the different applications of materials and manufacturing technologies embedded within our designs, and a change in approach. As weight reduction directly correlates to power savings, having a positive impact on our carbon footprint and those of our customers.



Figure 1 – CAE’s Carbon Neutrality Journey

In FY23 CAE was admitted to the Climate Group’s RE100 initiative (a collective of 400 global companies most committed to the use of renewable energy worldwide). CAE’s admission to this group is further testament to the strength of its achievements and commitments toward renewable energy. CAE also finalized its five-year ESG roadmap, involving collaboration with 15 working groups from all business units and functions.

CAE UK plc is putting in place environmental management measures to reduce emissions over time and make a commitment for UK operations to achieve Net Zero by 2050. CAE’s ESG roadmap includes environmental targets inspired by Net Zero commitments including the objective to set and commit to near and long term GHG emission and renewable energy targets as per SBTi criteria.

By nature, our simulation products and services contribute to the decarbonization efforts of our industries through the substitution of real flight training with FFS’s. To illustrate the benefits, it is estimated that, in FY21, more

than five million tonnes of CO₂e emissions were avoided (associated with the combustion of aviation fuel) through the substitution of real flight training with full-flight simulators in CAE Civil training centres. This is particularly impactful for our Defense & Security branch: military training, unlike our Civil business, is not regulated. There is no regulatory obligation to train in a simulator vs. live flight training. With our products, we support our customers in reducing their environmental impact with our simulator and synthetic environments that also offer safer forms of multi-domain training. Together, we contribute to mitigating climate change on a global scale while enhancing training effectiveness and efficiencies.

See section 5.1 for details of CAE's emissions reduction targets.

CAE (UK) plc is putting in place environmental management measures to reduce emissions over time and make a commitment for UK Operations to achieve Net Zero by 2050.

4 Carbon Inventory: Emissions

4.1 Baseline Emissions Footprint

CAE understands that baseline emissions act as a reference point against which future emissions reductions are measured and provide a record of GHGs produced prior to the introduction of any formal reduction strategies.

Annually, CAE’s Global Environment and Climate Change experts conduct a deep-dive analysis on CAE’s carbon footprint:

- Scopes 1 and 2 — The findings helped us further identify the primary sources of CAE’s emissions with 82% of Scope 1 and 2 emissions related to energy consumption from buildings and 64% of Scope 1 emissions related to aviation fuel.
- Scope 3 — We determined the approach required to obtain a complete profile of Scope 3 carbon emissions along CAE’s supply chain, covering all activities upstream (sources of raw material) and downstream. These findings identified that an estimated 74% of Scope 3 emissions related to purchased goods & services.

Note: In 2022, CAE expanded its Scope 3 reporting beyond business air travel to purchased goods and services, capital good, employees transportation and fuel and energy-related emissions not included in Scopes 1 and 2.

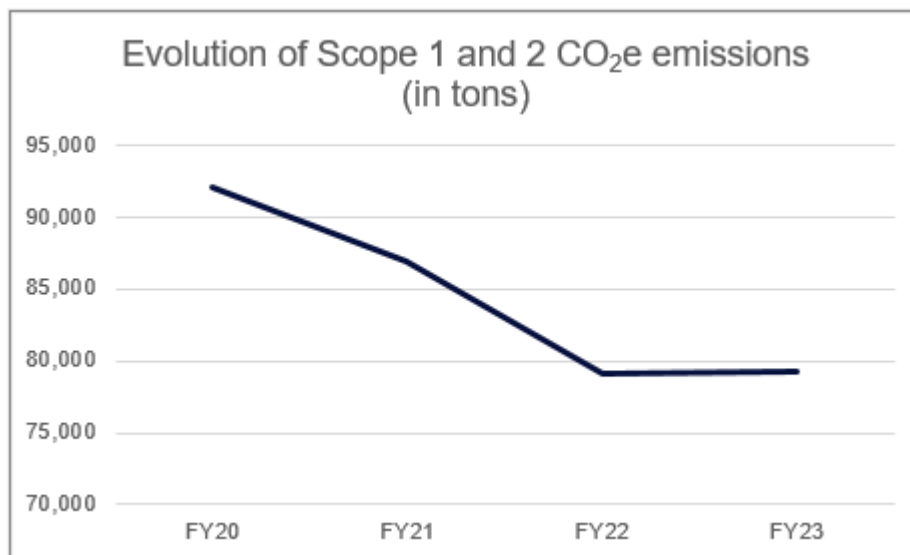


Figure 2 - Scope 1 & 2 Emissions Reduction by Financial Year

Note: Despite the growth of CAE’s operations, energy related carbon emissions remain similar to FY22; additionally there has been a 14% decrease of CO₂ emissions from FY20 to FY23.

Table 4-1 Baseline Emissions Footprint

Baseline Year:	FY20
EMISSIONS	tCO₂e
Scope 1: All direct emissions from sources CAE owns or controls.	<ul style="list-style-type: none"> • 21,998 tonnes
Scope 2: All indirect emissions from the generation of purchased electricity, steam, heating and cooling	<ul style="list-style-type: none"> • Scope 2, Location-based emissions: 70,002 tonnes • Scope 2, Market-based emissions 17,522 tonnes
Scope 3: Other indirect emissions that occur in a company’s value chain	<ul style="list-style-type: none"> • Cat. 1 (Purchased goods & services): 148,877 tonnes • Cat. 2 (Capital goods): 18,994 tonnes • Cat. 3 (Fuel & Energy related activities): 15,739 tonnes • Cat. 6 (Business Travel): 16,198 tonnes • Cat. 7 (Employee commuting): 23,607 tonnes

4.2 Current Emissions Reporting

Table 4-2 Current Emissions Reporting

Reporting Year:	FY23 (April 1 st , 2022 to March 31 st 2023)
EMISSIONS	tCO₂e
Scope 1:	<ul style="list-style-type: none"> • 22,115 tonnes
Scope 2:	<ul style="list-style-type: none"> • Scope 2, Location-based emissions: 4,254 tonnes • Scope 2, Market-based emissions 17,522 tonnes
Scope 3:	<ul style="list-style-type: none"> • Cat. 1 (Purchased goods & services): 181,398 tonnes • Cat. 2 (Capital goods): 2,317 tonnes • Cat. 3 (Fuel & Energy related activities): 19,575 tonnes • Cat. 6 (Business Travel): 17,432 tonnes • Cat. 7 (Employee commuting): 23,607 tonnes

5 Carbon Reduction

5.1 Emissions Reductions Targets

CAE has expanded our Scope 3 (emissions associated with our Supply chain) reporting beyond business air travel to additional major categories. Now that we are improving our baseline, we are preparing to submit carbon emission targets that align with the Science Based Targets initiative.

CAE has progressed in our strategy to reduce our GHG emissions at the source, pursuing opportunities identified under a decarbonization plan organized in four streams:

- sustainable buildings
- sustainable products
- electric aircraft
- sustainable sourcing

To date, the potential emission reductions associated with projects assigned to these streams are estimated at 12,000 tonnes of CO₂e, the equivalent of 15% of CAE's FY23 Scope 1 and Scope 2 location-based emissions.

5.2 Carbon Reduction Initiatives

5.2.1 Green Buildings

- United Kingdom
 - All facilities for which CAE has operational control source their renewable electricity from sources with Guarantees of Origin.
 - Defence & Security became ISO 14001:2015 certified in January 2015 and has maintained certification since (see Annex A).
 - CAE UK D&S facilities are equipped with LED lighting and use motion activation outside of core office hours.
 - The CAE Cycle to Work allotment increased; the maximum amount that can be claimed for a bicycle is now £3,000.
- Other regions
 - In order to address building-related carbon emissions, a standard has been defined for the layout of CAE's offices. This standard is called 'Agora'. Our Agora workspaces improve on-campus environmental management by providing employees with the facilities and means to act in an environmentally responsible manner. By design, Agora contributes to reductions in energy consumption (LED lighting, open space design for efficient heating and cooling), encourages our ongoing transition to a more digital environment and contributes to reducing our carbon and energy footprint
- Globally
 - As CAE buildings are its primary source of energy consumption (lighting, HVAC systems), CAE is effecting change with the

introduction of a new building construction guidelines, developed to integrate environmental and energy efficiency requirements. Green features are part of that new standard; they include building management systems, high-efficiency HVAC systems, LED lighting and more. We estimate that this programme will deliver a reduction of 6,000 tonnes of CO₂e. As of end of FY23, we had reached 93% of LED lighting covering in our sites. This dynamic building design approach introduces emissions reduction measures at the pre-design phase, involves independent third-party analysis, and applies an evolutive and scalable engineering model. The CAE Savannah Training Centre in Georgia, served as a pilot project to apply the new standards, which have been demonstrated to reduce carbon emissions by 18% compared to traditional construction methods, based on local energy market conditions in Georgia.

- CAE also developed and distributed the 'CAE Best Practices Energy Guide' and introduced new facility maintenance practices to optimize energy use and maximize equipment performance at our facilities.
- CAE-designed Royal Canadian Air Force (RCAF) training Centre awarded LEED certification. Under a three-phase contract awarded by Airbus in 2017: CAE delivered a C295W aircrew and maintenance training solution to support the RCAF Fixed-Wing Search and Rescue (FWSAR) program. CAE led the design and building of the RCAF training Centre facility at 19 Wing Comox, Vancouver Island, British Columbia. The Comox FWSAR Training Centre conforms to the Leadership in Energy and Environmental Design (LEED) silver level, integrating green building concepts and sustainability into the building's planning and design.
- Sustainable commuting options with appropriate infrastructures and incentive programs (charging station for electric vehicles, refunding of a portion of the public transportation fees, etc.) are also offered in several sites.

5.2.2 Simulators and Product Upgrades

- As the core of our global manufacturing and flight training activities, simulators are fundamental to our decarbonization strategy. With 324 FFSs deployed in our network, 46 FFSs delivered to customers and 62 FFS orders registered in FY23, a significant part of our emissions are determined by decisions taken as early as at the product design stage. We embed sustainability within each generation of FFSs by capturing efficiencies that are then incorporated in the next design. Our new product line keeps customer expectations, sustainability, safety and performance front of mind, delivering built-in competitive advantages and eco-efficiencies.
- We are working on exploring alternative motion systems and power management measures to reduce energy usage and improve the carbon footprint of our simulators.

- In 2021, CAE launched various innovative R&D projects to develop energy conservation solutions for our full-flight simulators. One opportunity CAE is looking into is the assessment of water, energy and mineral consumption attached to the upstream process portion of the simulator lifecycle, which CAE oversees.

5.2.3 Electric Aircraft

- Under Project Resilience, a £750 million investment in innovation, CAE is exploring actions to go beyond compensation and take concrete action to further reduce the carbon footprint generated by the aviation fuel consumption of its fleet of aircraft operated at CAE flight training operations (FTOs) worldwide. In FY23, aviation fuel consumed by CAE's fleet of planes produced 14,206 tonnes of carbon dioxide equivalent (tCO₂e).
- CAE is working with industry partners in the development of electric aircraft technologies and taking concrete decarbonization actions to reduce CAE's overall emissions.
- A concrete step was announced at the Farnborough International Airshow 2022: a partnership with Piper Aircraft to develop a conversion kit via a Supplemental Type Certificate (STC) for in-service Piper Archer aircraft and bring an electric variant option of the aircraft to market. CAE expects to convert up to 80 of its Piper Archer training aircraft and develop a curriculum for new pilots to train on the operation of electric aircraft. This project will contribute to a projected reduction of up to 45% of our Scope 1 emissions over the next coming years.

5.2.4 Green Sourcing

- CAE invests in EACs in the countries where it operates to offset our use of electricity. All sites where CAE has operational control are now 100% sourced with renewable energy or covered by EACs.
- In 2022, CAE issued a Supplier Code of Conduct including environmental commitments.
- CAE is also working on a review of its value chain to identify carbon reduction opportunities in cooperation with our suppliers.
- CAE further embedded environmental, social and governance (ESG) in the sourcing processes, starting with the sourcing templates (i.e. request for proposal, request for information) as needed to achieve appropriate level of granularity on ESG criteria. CAE embeds ESG criteria into its sustainable sourcing process and tools to better reflect their role in the total cost of doing business with potential suppliers; this includes environmental impact and ESG-related risks. To that effect, these new performance evaluation criteria are part of its Supplier Recognition Program, which underscores supplier excellence in the adoption of sustainability and social mindfulness practices. CAE Purchasing General Terms and Conditions were also updated.

5.2.5 Others

- Other initiatives of reduction of CAE's carbon emissions:

UNCLASSIFIED

- Various operational improvement projects are deployed. These initiatives encompass optimizing real estate services, further digitalizing the processes, and ultimately generating significant and recurring economies of scale for CAE, including energy consumption and carbon emission reductions.
 - CAE has been observing Earth Day and Earth Hour for several years with different local environmental activities to raise the environmental awareness of the employees and of the community.
 - As part of its commitment to carbon neutrality, in FY20, CAE embarked on a more formal process to comprehensively address climate change risks. CAE's Climate Change Committee (CCC), has been tasked with conducting a full assessment of climate-related risks and opportunities. The CCC's ultimate purpose is to oversee the integration of climate-related issues into CAE's business strategy, and to identify and manage risks and opportunities. The comprehensive climate risk assessment was completed in FY22 and updated in FY23 on a set of selected sites representative of CAE's services portfolio and of the global footprint with various levels of exposure to climate risks. This completed exercise allowed CAE to update the list of climate-related risks and opportunities with an initial time horizon of 2030.
 - The introduction of an Electric Vehicle leasing scheme to all UK employees - employees are able to lease electric vehicles and pay for them through the payroll and benefit from salary sacrifice.
- Indirect carbon reduction impact across the industry:
 - CAE contributes to preventing millions tonnes of CO₂e from being emitted each year by training pilots in simulators. It is estimated that, in FY21, more than five million tonnes of CO₂e emissions were avoided (associated with the combustion of aviation fuel) through the substitution of real flight training with full-flight simulators in CAE Civil training centres.
 - Also, through partnerships announced under project Resilience, CAE is also taking an active role in Advanced Air Mobility and the development of green light aircraft technologies.
 - CAE Flight Operations Solutions offer airlines and business jet operators flight management capabilities that enable them to reduce their carbon footprint through the optimization of flight plans and fuel consumption. Our digital ecosystem considers multiple factors (age of plane, engine type, day of flight, weather, navigation, weight/number of passengers) to determine the best route for optimal fuel and time savings, lowering fuel consumption and reducing carbon emissions.

5.2.6 Future Carbon Reduction Initiatives

In the future CAE also explores the possibilities to implement further carbon reduction measures such as:

- The provision of Electric Charging Points at the UK head office.
- The provision of virtual meeting rooms.
- Explore the possibility of on-site electricity generation (solar panels, UK)

5.2.7 Future Carbon Reduction Targets

CAE has set future carbon reduction targets:

- All sites to engage in energy consumption reduction (target of 5% reduction of scope 1 & 2 emissions from FY23, for all civil sites)
- Sites to draft preliminary mitigation plans to address the main risks identified during CAE's climate change assessment

Annex A - ISO 14001 Certificate

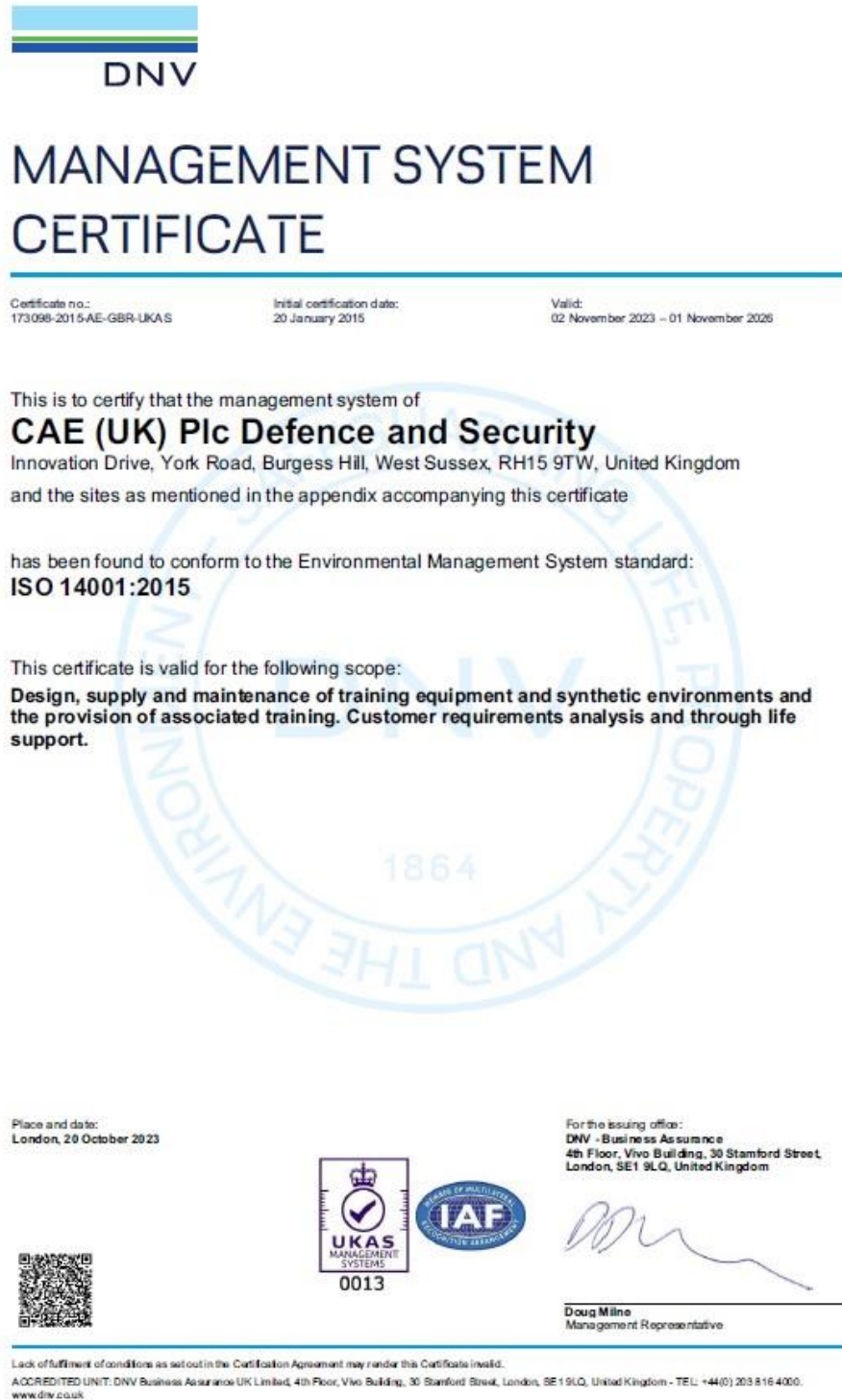


Figure 3 – ISO 14001 Certificate (Burgess Hill)

UNCLASSIFIED



Certificate no.: 173098-2015-AE-GB-R-UKAS
Place and date: London, 20 October 2023

Appendix to Certificate

CAE (UK) Plc Defence and Security

Locations included in the certification are as follows:

Site Name	Site Address	Site Scope
CAE (UK) Plc Defence and Security	Innovation Drive, York Road, Burgess Hill, West Sussex, RH15 9TW, United Kingdom	Design, supply and maintenance of training equipment and synthetic environments and the provision of associated training. Customer requirements analysis and through life support.
RNAS Culdrose	Merlin Training Facility, RNAS Culdrose, Helston, Cornwall, TR21 7RH, United Kingdom	Design, supply and maintenance of training equipment and synthetic environments and the provision of associated training. Customer requirements analysis and through life support.
RAF Benson	Medium Support Helicopter, Aircrew Training Facility, RAF Benson, Wallingford, Oxfordshire, OX10 6AA, United Kingdom	Design, supply and maintenance of training equipment and synthetic environments and the provision of associated training. Customer requirements analysis and through life support.

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV Business Assurance UK Limited, 4th Floor, Vivo Building, 30 Stamford Street, London, SE1 9LQ, United Kingdom - TEL: +44(0)208 816 4000.
www.dnv.co.uk

Figure 4 – ISO 14001 Certificate (UK Military Sites)