

# CAP 437 Offshore Meteorological Observer Training



Training for Meteorological  
Observers in support of  
Offshore Helicopter Operations

# Meteorological Observer Training in support of Offshore Helicopter Operations

## Introduction

The Civil Aviation Authority document 'CAP 437 Offshore Helicopter Landing Areas – Guidance on Standards' has recently been updated (Chapter 6 Section 4) and now includes:

- The requirements for accurate timely and complete weather observations to be made using automated sensors.
- The use of visibility and cloud base information derived from automated sensors within a 10 mile radius.
- Recommendation for certificated training of offshore personnel that undertake weather observations.
- Increased supply of offshore MET information using web based systems.

The following training requirements have been established in order to provide sufficient knowledge for offshore personnel who carry out weather observations (Met Observers) in order to provide accurate weather reports to the standards necessary to ensure the safety of helicopter operations. On successful completion of the course the trainee will be awarded a meteorological observing certificate. The certificate will only apply to observing duties in support of offshore helicopter operations and where the installation uses or has access to Met information from automated sensors.

## Training Course Overview

The course objective will be to ensure that Met Observers will be capable of providing both a pre-flight weather report issued before Take-off, and on request, a radio message detailing the current weather on the helideck.

Training will be provided to ensure the specified information is provided in these reports using the correct terminology and reporting increments.

Information from automated sensors will be used to compile the weather reports. Training will be carried out to enable the Met Observer to visually evaluate the visibility, present weather, cloud amounts, height of cloud bases, and presence of significant convective clouds (TCU and CB). Trainee Met Observers will be provided with information detailing the limitations of automated weather observations that are used for meteorological observations; this will include understanding the limitations of using automated weather observations that may have been made within a 10 mile radius and the importance of ensuring the local conditions are accurately being reported.

Tuition will be provided to assist Met Observers provide reports from contingency Met observing equipment which require the manual measurement of pressure, air and dew point temperatures, wind speed and direction.

The reporting increments, terminology and other policies relating to the reporting of weather conditions from offshore structures will be aligned with the METAR code as detailed in CAP 746 Meteorological Observations at Aerodromes (Chapter 4 METAR structure and UK coding rules).

## Training Objectives

This course will enable the participants to:

- Appreciate the importance of accurate offshore weather observations
- Understand the requirements and skills needed to produce these
- Understand the basics of the UK's weather and its potential impact on offshore helicopter operations
- Correctly use Met recording equipment and understand limitations of semi-automated sensors for the various weather parameters
- Correctly identify different weather and cloud types and understand their potential impact on offshore helicopter operations
- Understand the TAF and METAR code
- Find relevant reference materials to ensure correct encoding of weather observations
- Produce, encode and send an accurate, timely and complete offshore weather observation

## Training Syllabus

The course will cover the following aspects, in line with the requirements specified above:

- A. The purpose of weather reports for offshore helicopter operations
- B. Introduction to meteorology (weather patterns, air masses and fronts)
- C. The requirements for wind reports from offshore helidecks
- D. Estimating visibility from offshore helidecks and limitation of sensors
- E. Atmospheric and related conditions which result in reduced visibility offshore
- F. Observing weather phenomena and limitations of sensors
- G. Observing precipitation including freezing precipitation
- H. Estimating cloud amounts and cloud bases and limitation of sensors
- I. Identification of convective clouds and the operational significance of TCU/CB clouds
- J. Observing and reporting lightning and thunderstorms
- K. CAVOK
- L. Reporting of pressure including QNH and where required QFE
- M. Reporting of sea conditions i.e. Sea State and Wave Height
- N. Relevant elements of the METAR and TAF codes including UK coding rules
- O. Operation of the Met Observing System
- P. Completing the Weather Report Proforma (for pre-flight and subsequent radio message)
- Q. Observations made using contingency meteorological observing equipment (i.e. manual measurements of air and dew point temperatures, wind speed and direction and pressure)

Practical Training to include the completion of weather reports for pre-flight and radio messages.

## The Training Course

The training consists of a 2 day course. The detailed course timetable is shown below. Full course notes and exercises are included. The courses are normally held at StormGeo Ltd. offices in Westhill, Aberdeenshire however other locations can be arranged on request. Lunch is provided.

The course will conclude with a short test which personnel must pass in order to successfully complete the course. Successful trainees will then be awarded a limited meteorological observers certificate specific to the support of helicopter operations in the UK sector of the North Sea. The certificate will be valid for two years from date of completion of the course. Refresher Training courses are offered after the two year period of validity. Please contact us for further details.

## StormGeo Ltd.

StormGeo is the fastest growing and one of the world's largest commercial weather service providers, serving a worldwide customer base with advanced solutions through our global 24/7 forecasting desks.

StormGeo has been approved by the UK Civil Aviation Authority to provide courses for Offshore Meteorological Observers. All personnel successfully completing this course will have met the requirements contained with CAP437 for Meteorological Observers.

All StormGeo trainers are qualified meteorological observers with experience working at airports. In addition they all have experience of North Sea weather forecasting and the course leaders are qualified trainers.

## Training Course Prices for 2020

### Courses at StormGeo, Westhill, Aberdeenshire

Individual Price GBP 580 plus VAT

Includes training costs, training notes, certificates, lunch and tea & coffee.

### Courses Provided Worldwide

CAP 437 is now being adopted in many other countries and StormGeo can provide courses at customer locations (nationally and internationally) on request. The delegate rate is as specified above, with an additional charge applied to cover the travel and subsistence costs of the trainers. The customer is to provide the venue, lunches and refreshments.

### Additional Information

For individual bookings a minimum number of 8 delegates are required for a course to run.

Cancellations made at least four weeks before the course date will not be charged for. Cancellations less than 4 weeks and at least 1 week before the course will be charged at 50% of the course fee whilst for those cancelled with less than 1 week's notice the full course fee will be payable.

All prices exclude VAT

## Bookings

For all booking enquiries or to reserve a course place please telephone or e mail Alan Binley at +44 (0) 1224 766581,

Email: [alan.binley@stormgeo.com](mailto:alan.binley@stormgeo.com)

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# Offshore Observing Course Timetable

## Day 1

08:30 – 08:50	Introductions
08:50 – 09:15	Overview of the Offshore Weather Report
09:15 – 09:45	Offshore Automated Meteorological Observing System
09:45 – 10:30	Tea/Coffee
10:30 – 10:45	Basic Meteorology
10:45 – 11:30	Wind Measurement
11:30 – 12:15	Visibility Measurement and Estimation
12:15 – 13:00	Lunch
13:00 – 14:15	Weather and Reporting Actual Weather Conditions
14:15 – 14:30	Cloud Identification and Reporting
14:30 – 15:15	Tea/Coffee
15:15 – 16:00	Cloud Identification and Reporting

## Day 2

08:30 – 10:00	Cloud Identification and Reporting
10:00 – 10:15	Tea/Coffee
10:15 – 11:15	Cloud Identification and Reporting
11:15 – 11:35	Sea State reporting
11:35 – 11:50	CAVOK, Explanation and Reporting
11:50 – 12:20	Atmospheric Pressure Measurement
12:20 – 12:40	Checking and Sending the Offshore Weather Report
12:40 – 13:30	Lunch
13:30 – 14:00	Offshore Weather Report Exercise 2
14:00 – 14:45	METAR and TAF Coding
14:45 – 15:00	Tea/Coffee
15:00 – 15:15	Course Summary – Q&A
15:15 – 16:00	Course Test
16:00 – 16:30	Issue of Certificates and Feedback Forms

During course breaks and at other times as appropriate the opportunity will be taken to go outside, observe actual weather conditions and prepare the Weather Report forms.