



Meteorological Observations from Offshore Installations

Colin Hord

UK Meteorological Authority,
Civil Aviation Authority

UK Met Authority Responsibilities



- **Implementing policy for UK aeronautical met service to ICAO standards**
- **Regulating provision and dissemination of UK met services, including compliance against SES Regulations**
- **Ensuring UK aerodromes provide METARs in accordance with ICAO standards, including timeliness, accuracy and format.**
- **Certificating Met Observers by ensuring they are suitably trained and competent to carry out their task**
- **Providing UK lead input to formulating ICAO MET policy**

ICAO Annex 3 to Chicago Convention



- Defines the International Standards and Recommended Practices relating to Met
- Defines Meteorological Authority as
 - “responsible for the provision of meteorological services for international air navigation on behalf of each State”

ICAO Annex 3 to Chicago Convention



- **Chapter 4 Para 4.1.2 states**
- *Recommendation.— Each Contracting State should establish, or arrange for the establishment of, aeronautical meteorological stations on offshore structures or at other points of significance in support of helicopter operations to off-shore structures, if required by regional air navigation agreement.*

ICAO Annex 3 to Chicago Convention



- **Appendix 3 Para 4.8.1.4 states**
- *Recommendation.— In METAR and SPECI, the following information should be included in the supplementary information, in accordance with regional air navigation agreement:*
 - a) *information on sea-surface temperature and the state of the sea from aeronautical meteorological stations established on offshore structures in support of helicopter operations;*

Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995



- Regulation 14 states:
- the duty holder shall make arrangements for the collection and keeping of -
 - a) such meteorological and oceanographic information and
 - b) such information relating to the motions of the offshore installation

Drivers for Change



- Helicopter operators have been increasingly concerned with availability and quality of MET information from some offshore installations
- A number of MORs have resulted which highlighted the need for improved MET reports.
- Improved MET observing equipment used extensively at aerodromes was in limited use on offshore installations.
- No formal training for personnel making MET observations from offshore installation was available.

AAIB Report Fatal Accident involving G-BLUN



- On the 27/12/06 at night and in poor weather conditions G-BLUN crashed in Morecambe Bay
- The following recommendation was published
 - 4.6 **Safety Recommendation 2008-037:** It is recommended that the Civil Aviation Authority ensure that personnel who are required to conduct weather observations from offshore installations are suitably trained, qualified and provided with equipment that can accurately measure the cloud base and visibility.

CAP 437 Offshore Helicopter Landing Areas – Guidance on Standards



- In May 2008 review of Chapter 6 Section 4 was undertaken.
- Following consultation CAP 437 6th Edition will contain comprehensive and revised guidance material for the requirements for Met Observations
- CAP 437 will detail the need for accurate, timely and complete meteorological observations in the support of helicopter operations

CAP 437 Offshore Helicopter Landing Areas – Guidance on Standards



- Chapter 6 Section 4.1
- Installations are provided with an automated means of ascertaining the following MET information at all times
 - wind speed and direction
 - air temperature and dew point
 - pressure
 - cloud amount and height of base
 - visibility
 - present weather

In addition sea state and sea surface temperature are required where rescue craft are deployed

CAP 437 Offshore Helicopter Landing Areas – Guidance on Standards



- Following the consultation it was agreed that installations within 10 miles of each other do not all have to have an automated MET observing system providing the information is being made available from a “hub” station.
- At the neighbouring locations without automated equipment the observer is required to verify the report from the MET system i.e. cloud amount, height of base, visibility and present weather.
- Observations from wind, temperature and pressure sensors are required to be made at ALL installations.

CAP 437 Offshore Helicopter Landing Areas – Guidance on Standards



- **Weather Reports**
 - **Pre-Flight Weather Reports**
 - Noted that there is no common reporting standards or format of the reports
 - **Radio Message**
 - Procedures defined in CAP 413

CAP 437 Offshore Helicopter Landing Areas – Guidance on Standards



- **Collection and Retention of MET information**
 - **Offshore installations are strongly encouraged to supply MET information to web based systems that are operated on behalf of the offshore industry.**
 - **Where appropriate AUTO METARs may be generated from these reports and made available on the AFTN for international distribution.**

CAP 437 Offshore Helicopter Landing Areas – Guidance on Standards



- **Observer Training**
 - Recommendation that personnel that undertake MET observations on offshore installations undergo formal MET Observer training and are certificated by an approved training organisation.
 - CAA has provided Met Office with suggested training requirements for offshore MET observing course.

Current Work Plan



- **Review locations of where automated MET observing systems are currently installed**
- **Provide draft course syllabus for offshore MET observers to Oil and Gas UK for comment**
- **Arrange meeting in early 2009 with stakeholders (HCA, Oil and Gas UK, Helicopter Operators) in Aberdeen to discuss way forward.**



Questions?

