

**PROCEDURE FOR THE MONITORING OF TECHNICAL HEIGHT KEEPING PERFORMANCE
IN THE NORTH ATLANTIC REGION
(Issue 10 January 2005)**

1. Introduction

1.1 The on-going monitoring of technical height keeping performance, as recommended by ICAO, will be achieved in the North Atlantic region through the use of height monitoring unit near Strumble plus the periodic airborne carriage of GPS Monitoring Units where necessary.

1.2 Operators seeking RVSM approval will be required to have a number of their aircraft monitored within 6 months of receiving RVSM approval. This number of aircraft required to be monitored is dependent on the aircraft type. Advice on this matter may be sought by contacting the NAT Central Monitoring Agency (NAT CMA) by telephone on + 44 (0) 1292 692412 or e-mail on natcma@nats.co.uk.

1.3 Two methods of height monitoring are available and are outlined in the ensuing paragraphs. One method requires the aircraft to be flown over a fixed site Height Monitoring Unit (HMU) whilst the other necessitates the carriage of a portable GPS Monitoring Unit (GMU).

2. Monitoring using the HMU Method

2.1 The HMU is located **near** Strumble (STU) VOR below the centreline of UL9 (formerly UG1). The horizontal coverage area for the HMU is a 13.8 nm radius circle centred on position N51 56 00' W004 40' 00. In the vertical dimension, the coverage is from FL 290 to FL 410 inclusive. The site is unmanned and designed to operate continuously.

2.2 Whilst straight and level flight through the area of coverage should normally result in successful monitoring, operators of aircraft making a flight with the specific intention of getting monitored should, where possible, plan to meet the requirements outlined in the ensuing paragraphs:

2.3 *Pre-Flight Procedures.* Operators proposing to divert from an optimum route in order to fly over an HMU are strongly advised to call the Strumble HMU status line on + 44 (0)1292 692760 for HMU serviceability information. Every effort will be made to ensure that the promulgated information is accurate; however, operators should note that the equipment may become unserviceable at short notice.

2.3.1 The flight should be planned to route via STU. Dispatchers should ensure that Item 18 of the flight plan includes both aircraft registration (if it is not already included in Item 7) and "RMK/HMU FLT STU" .

2.3.2 If the aircraft does not possess RVSM approval, an initial level outside the band FL290 to FL410 should be filed and an additional remark in Item 18 should be added e.g. "RMK/HMU FLT STU RVSM LEVEL FOR OVERFLIGHT"

2.4 *In Flight Procedures.* Crews should aim to fly straight and level while within the coverage area of the respective HMU. Failure to do so may invalidate the result. Prior to an overflight of the Strumble HMU, crews should transmit "... **for HMU Flight**" to London Control on initial contact and, if not RVSM approved, a request for a level between FL290 and FL410 (inclusive) should be made. Operational requirements permitting, the controller will endeavour to allow the aircraft to route through the HMU coverage area in straight and level flight.

2.4.1 The HMU is capable of tracking many aircraft simultaneously. To that end, provided the above procedures are followed, aircraft height will be monitored and there will, therefore, be no necessity to carry out a second consecutive overflight.

2.5 *Post Flight Procedures.* Operators wishing to ascertain the result of the overflight may fax a request to the NAT CMA on + 44 (0) 1292 692754 or e-mail it to natcma@nats.co.uk. Any request for information regarding the result of monitoring will be more speedily dealt with if the Mode S or Mode A codes and approximate time of overflight are included in the enquiry.

3. MONITORING BY MEANS OF GMU CARRIAGE

3.1 Operators with RVSM MASPS certified aircraft wishing to be monitored using the GMU method should contact GMU Operations at ARINC Inc., USA, by telephone on + 1 410 266 4891 or by fax on + 1 410 573 3007. Where applicable, operators are requested to anticipate the issue of MASPS certification/RVSM approval so that best use of the available resources may be made. It should be noted that **the carriage of a GMU for monitoring purposes need not necessarily be on a NAT flight.**

