

RTCA Special Committee 186

Working Group 3

ADS-B 1090ES MOPS Corrigenda

Response to and Proposal for Resolution of Action Item 32-03

**Presented by: Tom Pagano, FAA
and Don Walker, FAA**

Summary

This working paper addresses a response to and makes a proposal for the resolution of *Action Item 32-03* as accepted by Tom Pagano and Don Walker.

1.0 Introduction

During the Joint Teleconference and WebEx Session of RTCA SC-186 WG-3 and EUROCAE WG-51, Subgroup 1 on 17 May 2011, Tom Pagano and Don Walker accepted *Action Item 32-03* to review the issue identified in Item #1 of 1090-WP32-05, which was raised by Dean Miller and his colleagues at Boeing, and to make any recommendations for needed clarification of the usage of the Geometric Vertical Accuracy (GVA) metric in DO-260B/ED-102A with respect to the Baro-Geo Difference data field in the Airborne Velocity Message.

2.0 Proposed Clarifications

2.2.3.2.7.2.8 “Geometric Vertical Accuracy (GVA)” Subfield in Aircraft Operational Status Messages

The “Geometric Vertical Accuracy (GVA)” subfield of Subtype=0 Aircraft Operational Status Message is a 2-bit field (“ME” bits 49-50, Message bits 81-82) defined in Table 2-71. The GVA field **shall** be set by using the Vertical Figure of Merit (VFOM) (95%) from the GNSS position source used to ~~encode the geometric altitude field in the Airborne Position Message~~ report the geometric altitude.

Note: The geometric altitude may be reported directly in the altitude field in the Airborne Position Message or indirectly using the Difference From Barometric Altitude subfield (§2.2.3.2.6.1.15) in the Airborne Velocity Message (§2.2.3.2.6) when barometric altitude is reported in the altitude field in the Airborne Position Message (§2.2.3.2.3.4).

2.4.3.2.7.2.8 Verification of the “Geometric Vertical Accuracy (GVA)” Subfield in Aircraft Operational Status Messages (§2.2.3.2.7.2.8, §2.2.5.1.51)

Purpose/Introduction:

The “Geometric Vertical Accuracy (GVA)” subfield of Subtype=0 Aircraft Operational Status Message is a 2-bit field (“ME” bits 49-50, Message bits 81-82) defined in Table 2-71. The GVA field is be set by using the Vertical Figure of Merit (VFOM) (95%) from the GNSS position source used to ~~encode the geometric altitude field in the Airborne Position Message~~ report the geometric altitude.

A.1.4.10.8 Geometric Vertical Accuracy (GVA)

This 2-bit (“ME” bits 49 – 50, Message bits 81 – 82) subfield in the Airborne Operational Status Message (Subtype=0) will be encoded as shown in Table A-29, and set by using the Vertical Figure of Merit (VFOM) (95%) from the GNSS position source used to ~~encode the geometric altitude field in the Airborne Position Message~~ report the geometric altitude.

Note: *The geometric altitude may be reported directly in the altitude field in the Airborne Position Message (§A.1.4.2.4) or indirectly using the Difference From Barometric Altitude subfield (§A.1.4.5.6) in the Airborne Velocity Message (§A.1.4.5) when barometric altitude is reported in the altitude field in the Airborne Position Message (§A.1.4.2.4).*