



Hindawi Publishing Corporation

International Journal of Navigation and Observation

International Journal of Navigation and Observation
Volume 2008 (2008), Article ID 651437, 8 pages
doi:10.1155/2008/651437

Research Article

Joint L-/C-Band Code and Carrier Phase Combinations for Galileo

Patrick Henkel¹ and Christoph Günther^{1,2}

¹Institute of Communications and Navigation, Technische Universität München, Theresienstraße 90, 80333 München, Germany

²German Aerospace Center (DLR), Institute of Communications and Navigation, Weßling/ Oberpfaffenhofen, Germany

Received 1 August 2007; Revised 27 November 2007; Accepted 15

Academic Editor: Gerard Lachapelle

Abstract

Linear code combinations have been considered for suppressing the increased noise floor. In a combined L- and C-band (5010 - 5030 MHz) and the noise floor reduced at the same time. Furthermore, combined measurements are considered. A new L-band code-carrier combination noise level of 3.92 centimeters is found. The double difference is resolved by extending the system of equations with an ionospheric correction of wrong fixing is reduced by several orders of magnitude with smoothing can be used to further reduce the residual variance of the factor 7.7 if C-band measurements are taken into account. These combined L- and C-band measurements, as well as the combined code and phase positioning.

Copyright © 2009 Hindawi Publishing Corporation. All rights reserved.