

Updating OPUS-S to Support Multi-GNSS

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SUMMARY

NOAA's National Geodetic Survey (NGS) is updating OPUS-S to support multi-GNSS static baseline processing. Previously designed around PAGES (NGS's GPS-only processing engine), OPUS-S has been redesigned to use M-PAGES, which is NGS's new software to process static GNSS data for observation periods greater than two hours. In addition to fundamental changes in the underlying processing engine, multi-GNSS OPUS-S will process RINEX3 files directly and include enhancements to the logic used to select CORS. Whereas OPUS-S with PAGES considers only baseline length and direction when selecting CORS, OPUS-S with M-PAGES also considers constellation availability and recently developed station stability scores (for NCN stations only) using a heuristic weighting scheme. This presentation will show an accuracy comparison of OPUS-S with M-PAGES and multi-GNSS signals versus the current version of OPUS-S with GPS alone. Future OPUS development plans include replacing OPUS-RS with expanded M-PAGES support for shorter occupations and integrating M-PAGES into OPUS-Projects session processing.

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