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## Appendix A5

This appendix presents the O-C time series derived from tidal parameterization tests using LAGEOS 1 and 2 data and the five considered gravity field models.

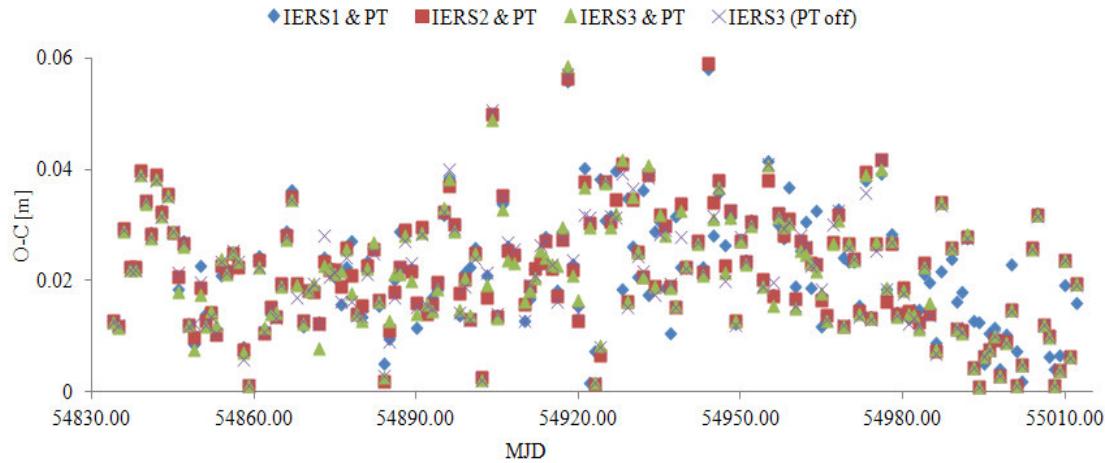


Figure 24: O-C residuals derived from LAGEOS 1 data based on the GRIM5C1 gravity field model.

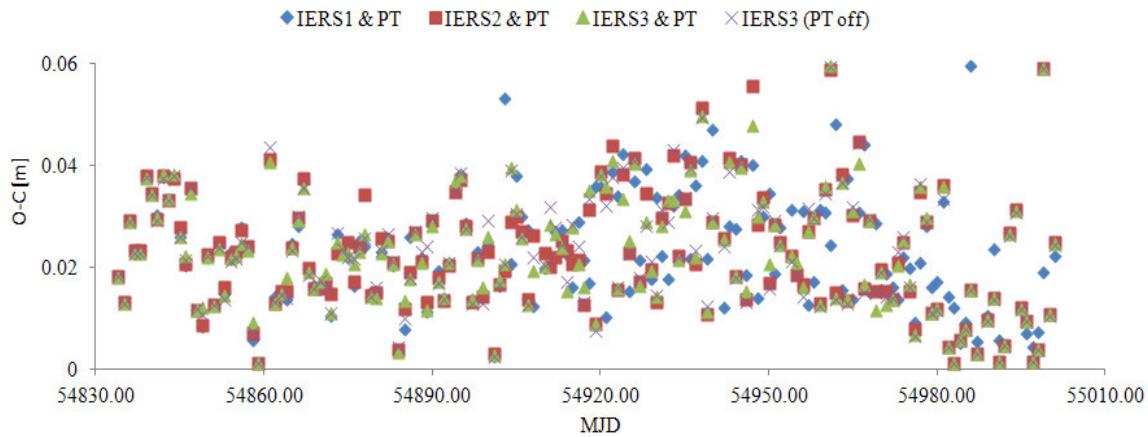


Figure 25: O-C residuals derived from LAGEOS 1 data based on the EIGEN-CG03C gravity field model.

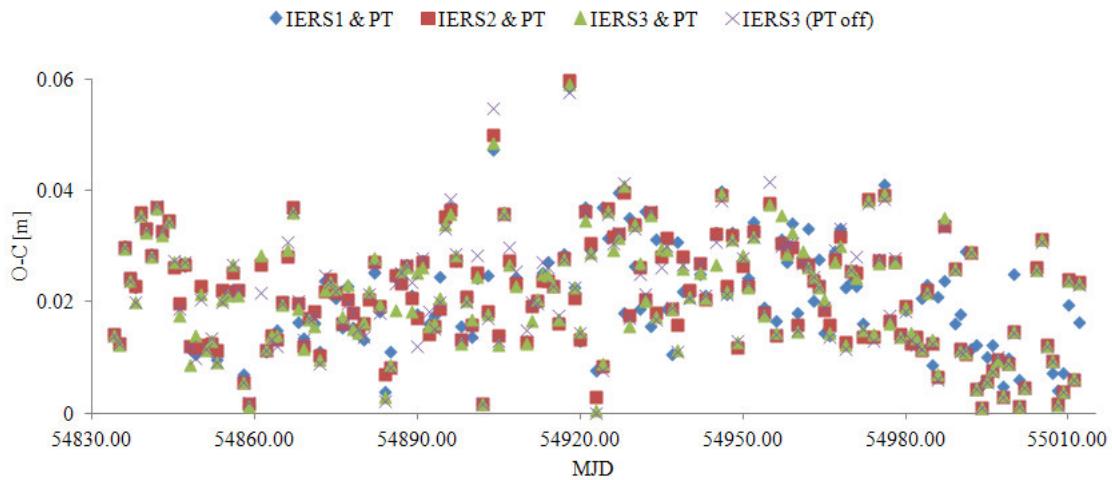


Figure 26. O-C residuals derived from LAGEOS 1 data based on the AIUB-CHAP01S gravity field model.

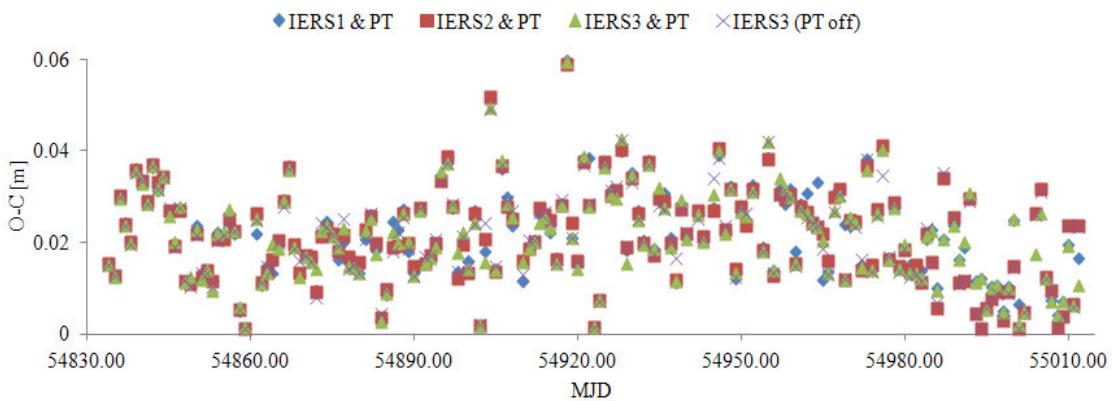


Figure 27. O-C residuals derived from LAGEOS 1 data based on the AIUB-GRACE01S gravity field model.

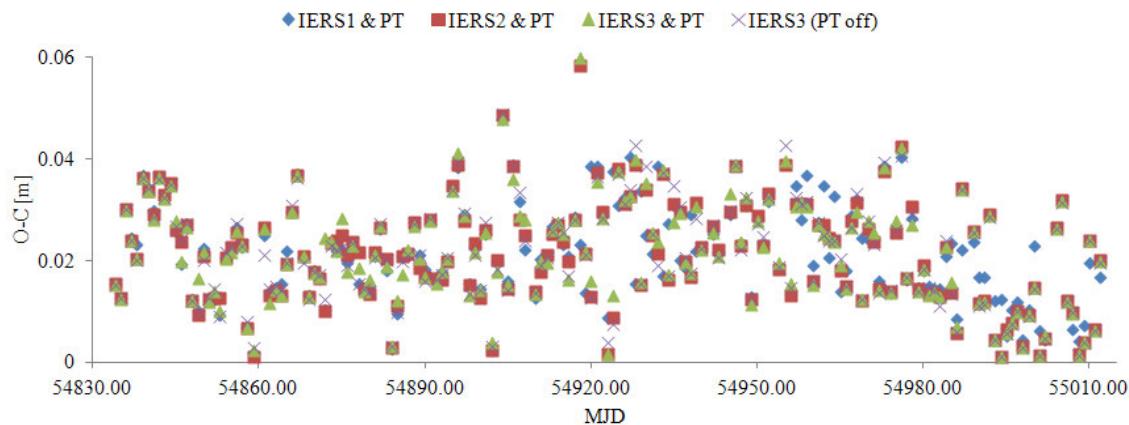


Figure 28. O-C residuals derived from LAGEOS 1 data based on the EGM2008 gravity field model.

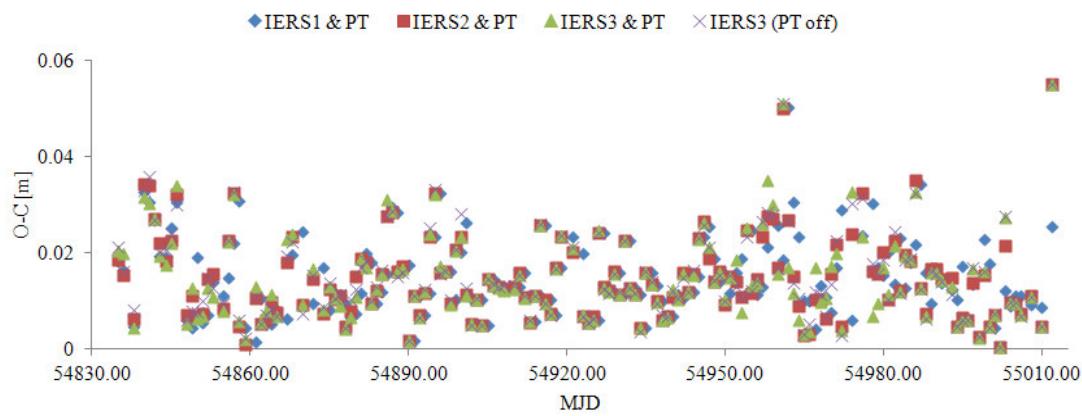


Figure 29. O-C residuals derived from LAGEOS 2 data based on the GRIM5C1 gravity field model.

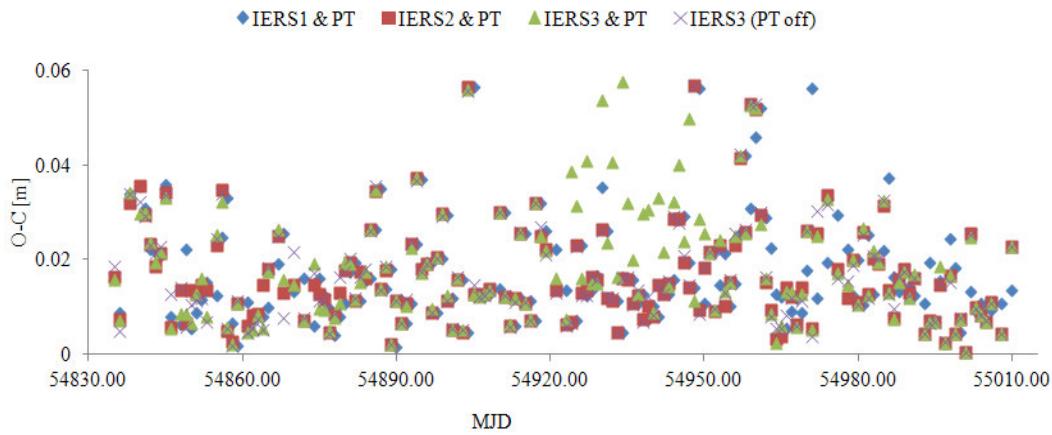


Figure 30. O-C residuals derived from LAGEOS 2 data based on the EIGEN-CG03C gravity field model.

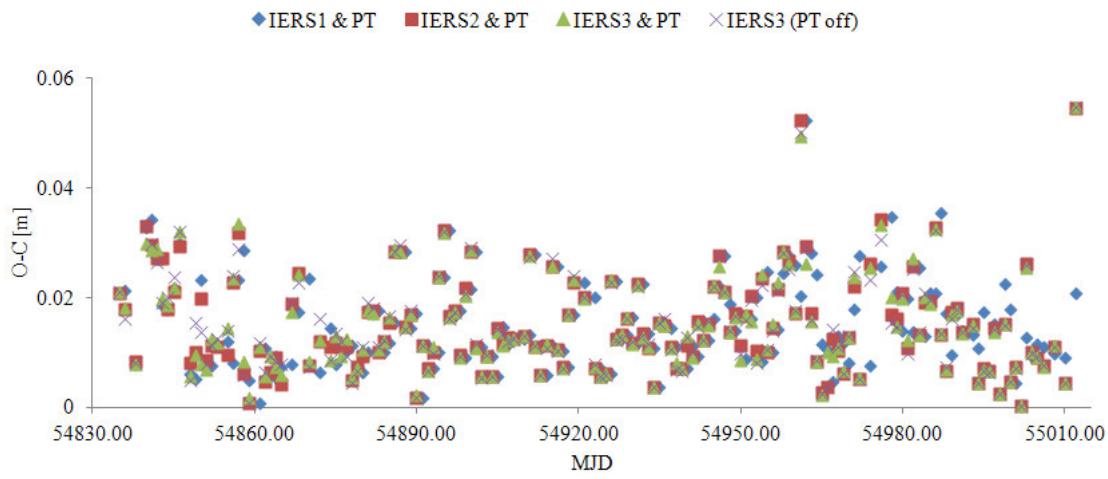


Figure 31. O-C residuals derived from LAGEOS 2 data based on the AIUB-CHAMP01S gravity field model.

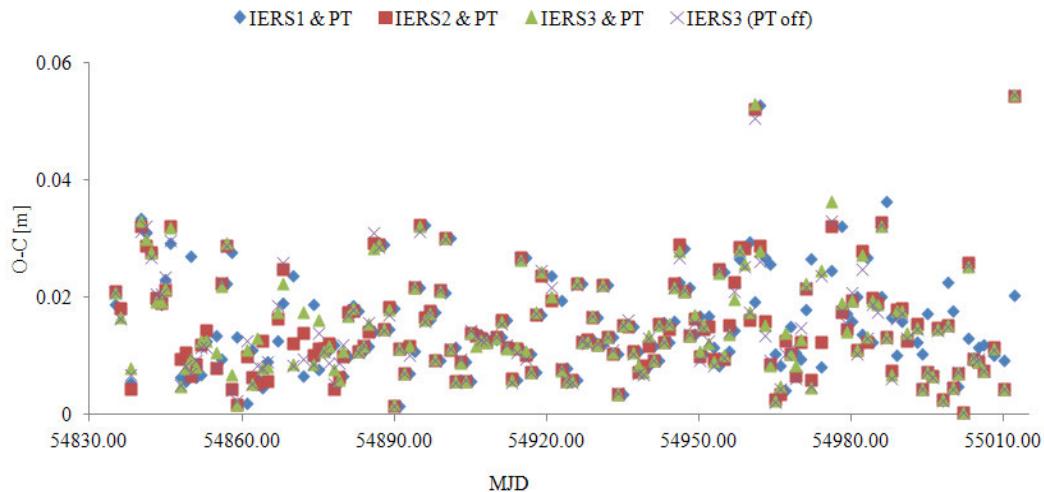


Figure 32. O-C residuals derived from LAGEOS 2 data based on the AIUB-GRACE01S gravity field model.

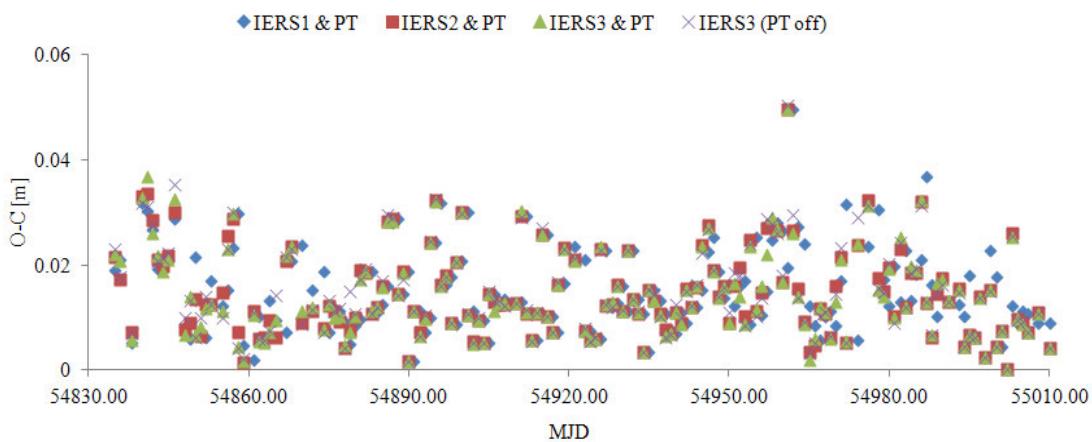


Figure 33. O-C residuals derived from LAGEOS 2 data based on the EGM2008 gravity field model.

## Appendix A6

This appendix presents phase synchronizations derived between  $J_2$  and LOD and  $J_2$  and AAM geophysical parameters as discussed in Chapter 6.

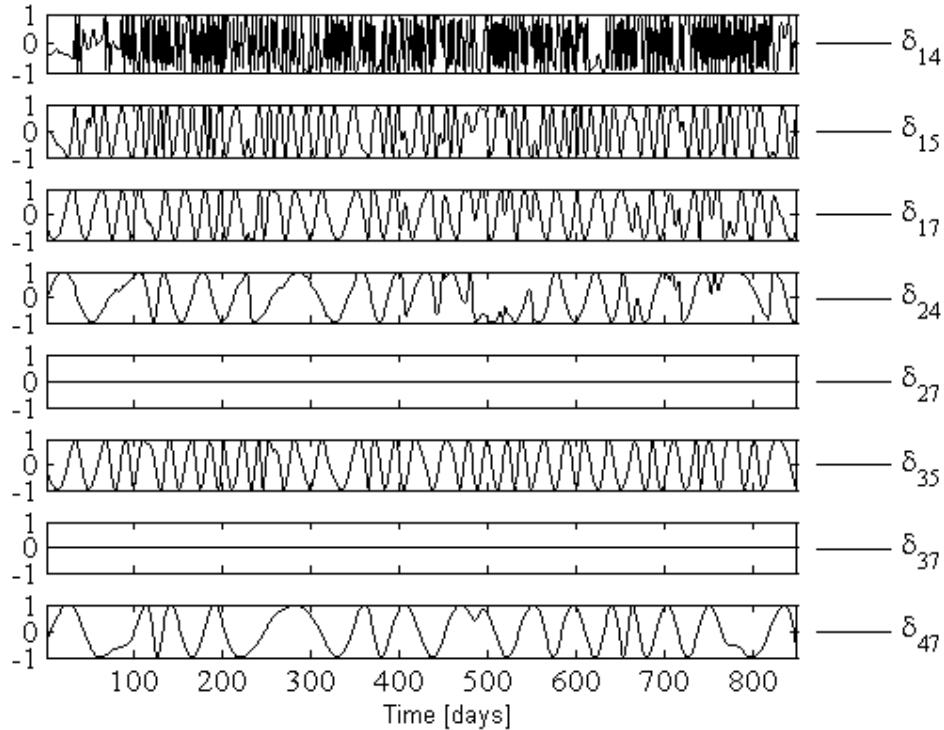


Figure 34. Phase synchronization of  $J_2$  (computed from LAGEOS 1 based on the EGM96 gravity field model) and LOD signals.

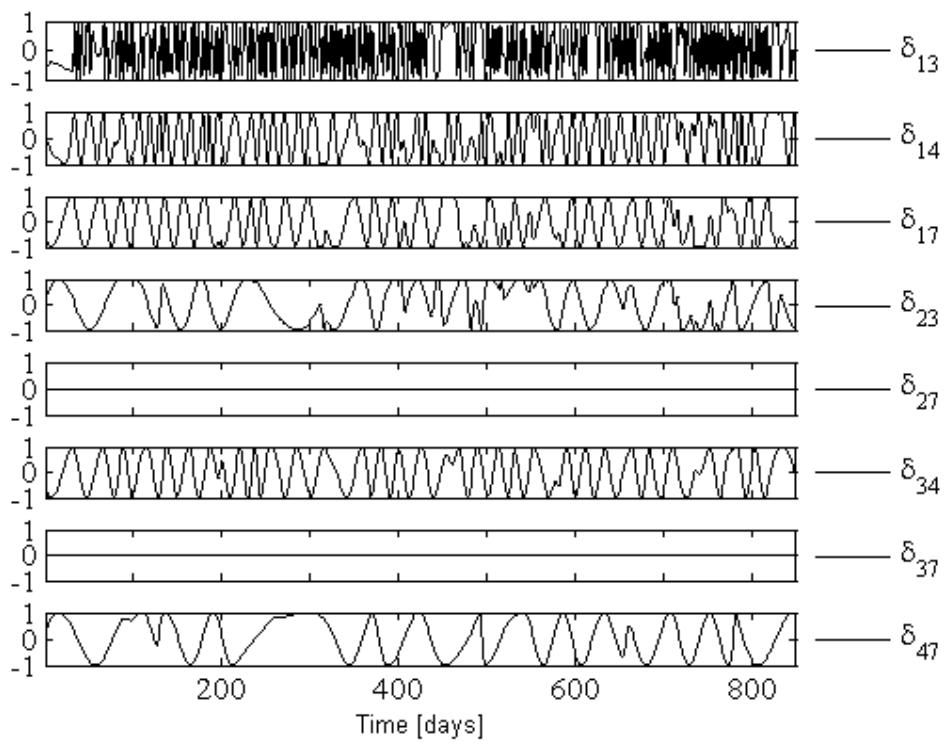


Figure 35. Phase synchronization of  $J_2$  (computed from LAGEOS 1 based on the GRIM5C1 gravity field model) and LOD signals.

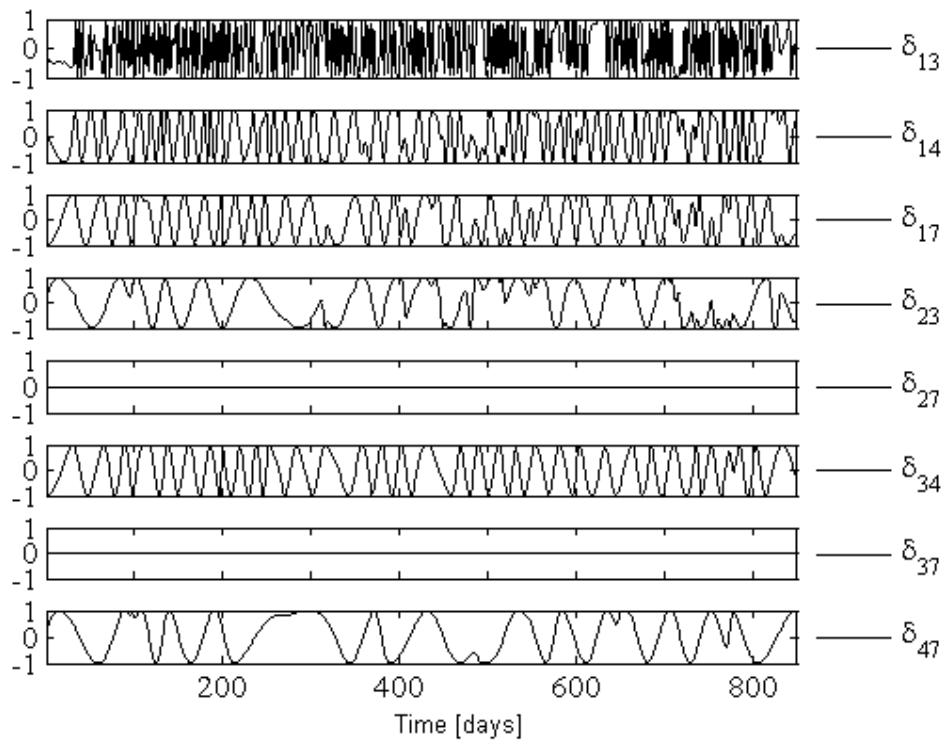


Figure 36. Phase synchronization of  $J_2$  (computed from LAGEOS 1 based on the GGM03C gravity field model) and LOD signals.

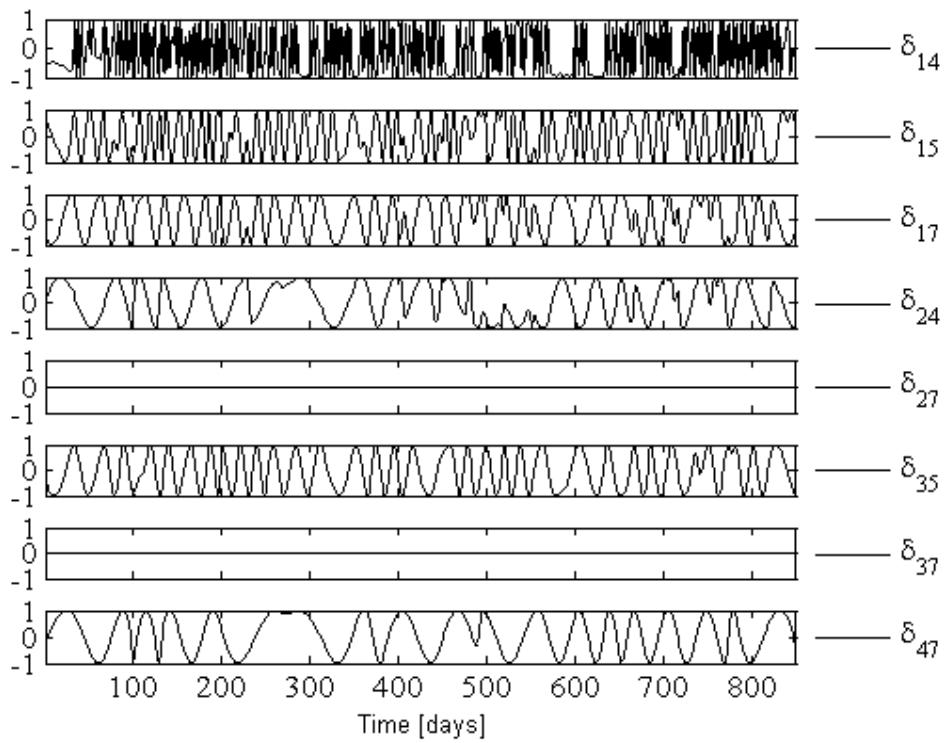


Figure 37. Phase synchronization of  $J_2$  (computed from LAGEOS 1 based on the AIUB-GRACE01S gravity field model) and LOD signals.

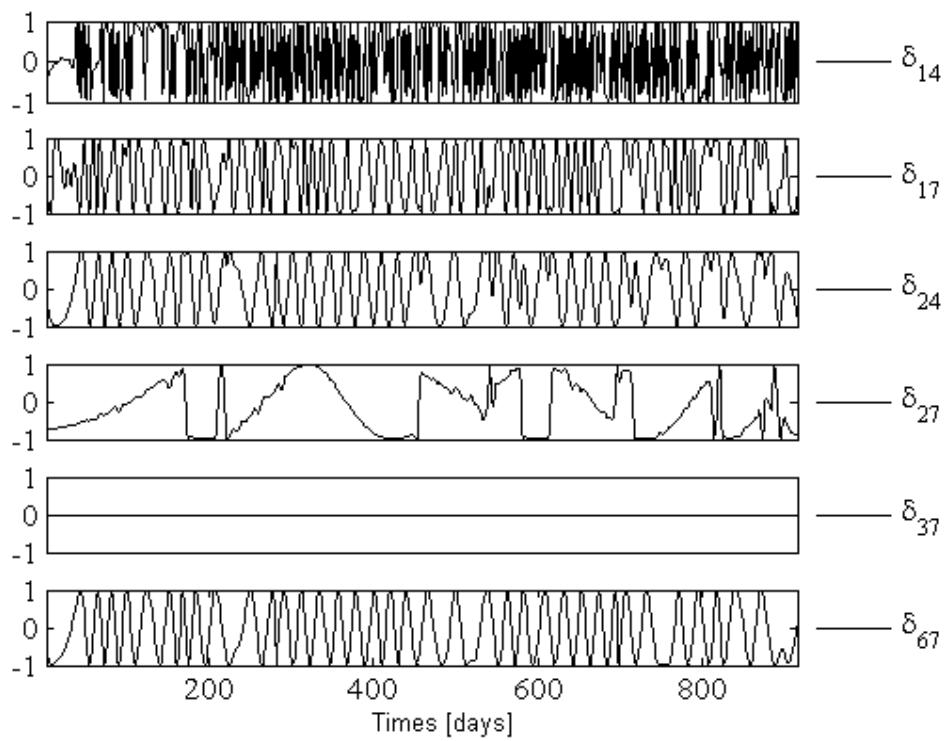


Figure 38. Phase synchronization of  $J_2$  (computed from LAGEOS 2 based on the EGM96 gravity field model) and LOD signals.

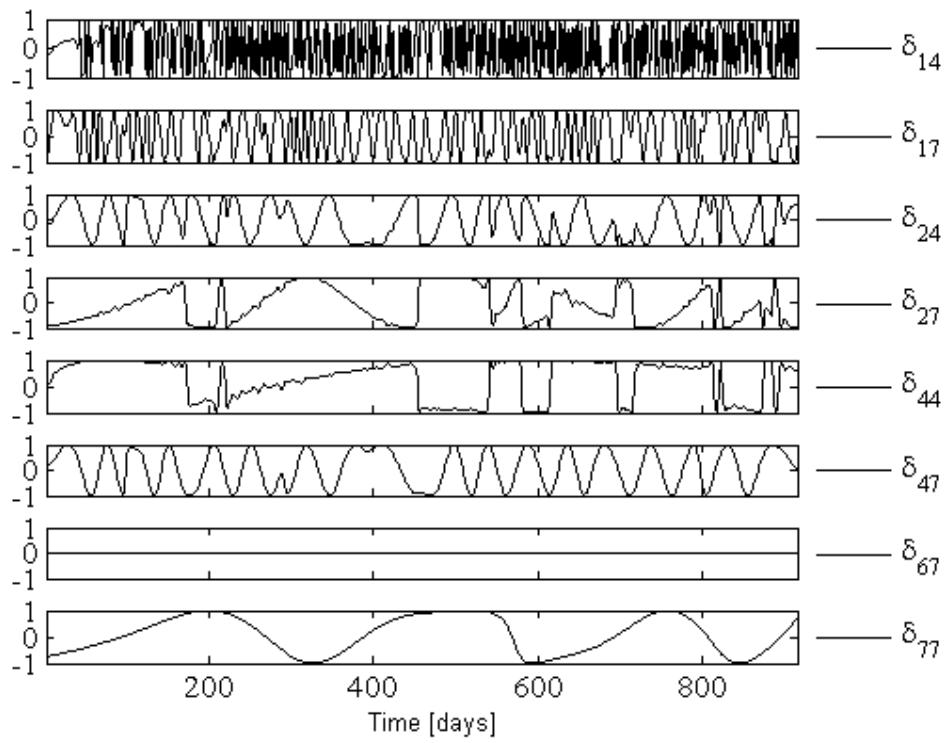


Figure 39. Phase synchronization of  $J_2$  (computed from LAGEOS 2 based on the GRIM5C1 gravity field model) and LOD signals.

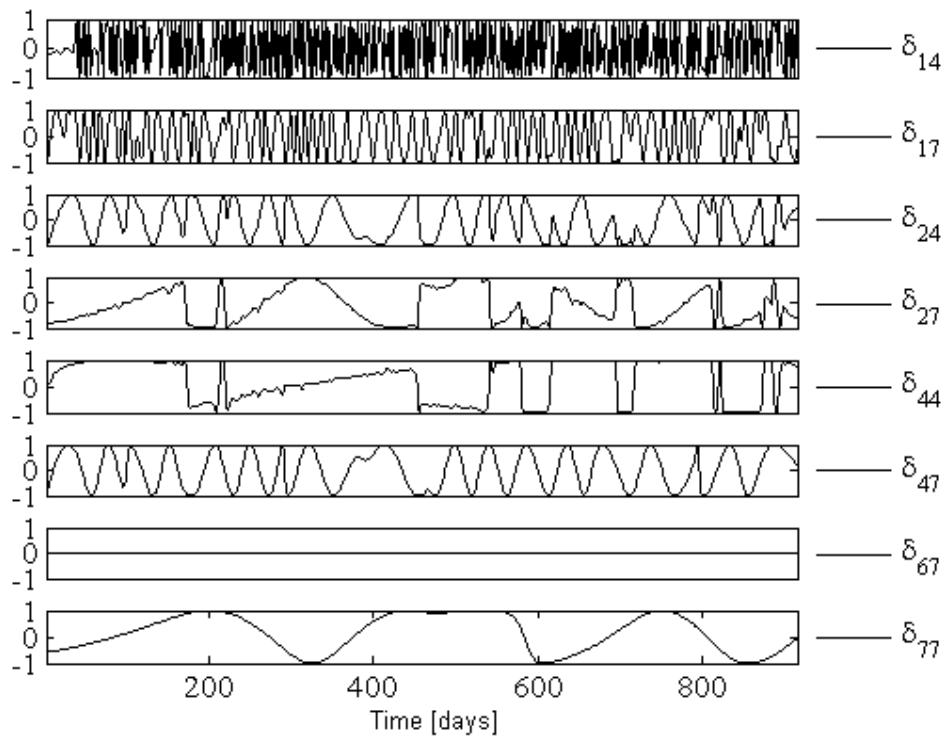


Figure 40. Phase synchronization of  $J_2$  (computed from LAGEOS 2 based on the GGM03C gravity field model) and LOD signals.

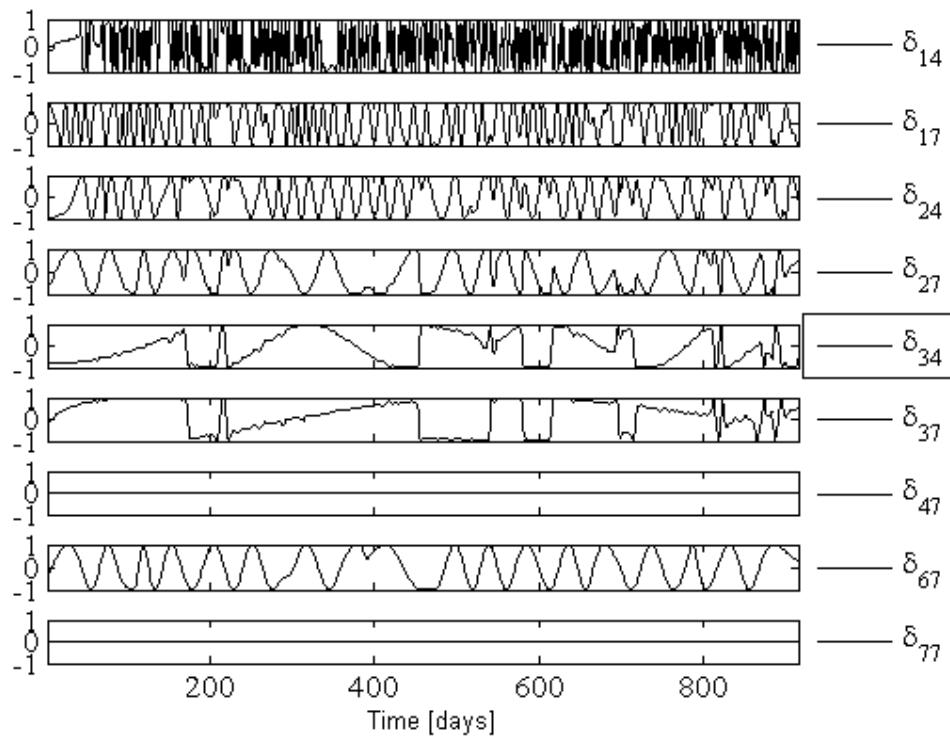


Figure 41. Phase synchronization of  $J_2$  (computed from LAGEOS 2 based on the AIUB-GRACE01S gravity field model) and LOD signals.

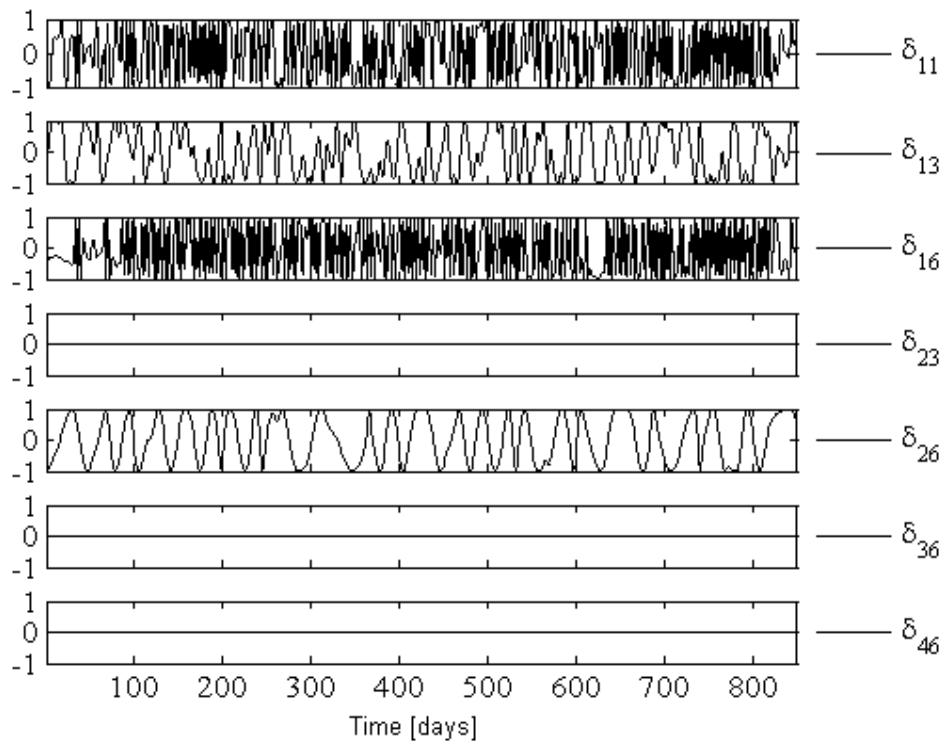


Figure 42. Phase synchronization of  $J_2$  (computed from LAGEOS 1 based on the EGM96 gravity field model) and AAM signals.

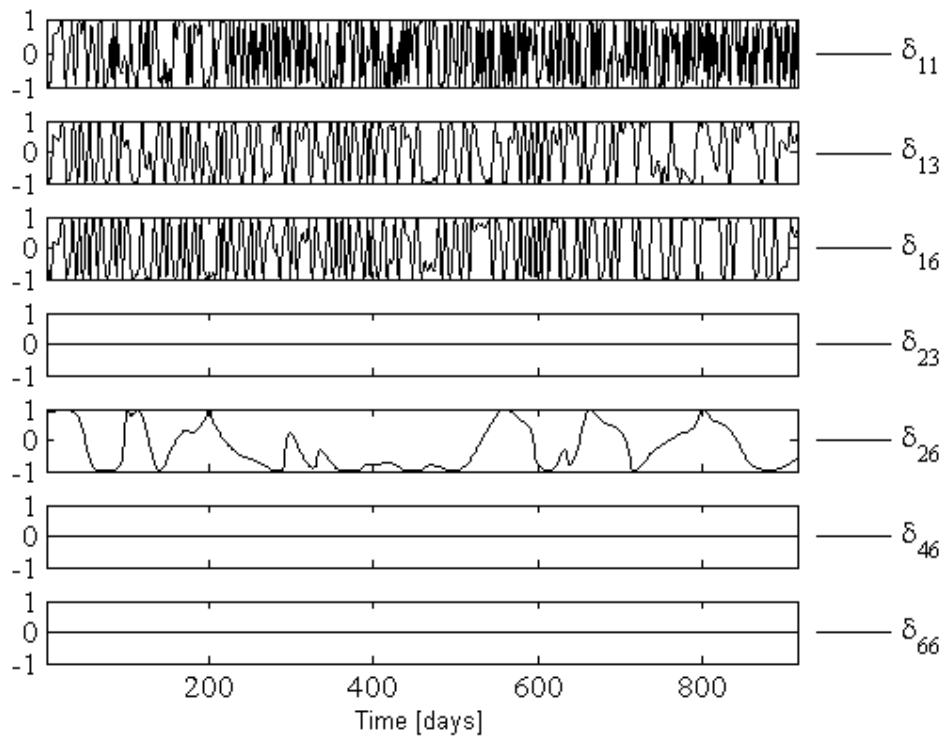


Figure 43. Phase synchronization of  $J_2$  (computed from LAGEOS 1 based on the GRIM5C1 gravity field model) and AAM signals.

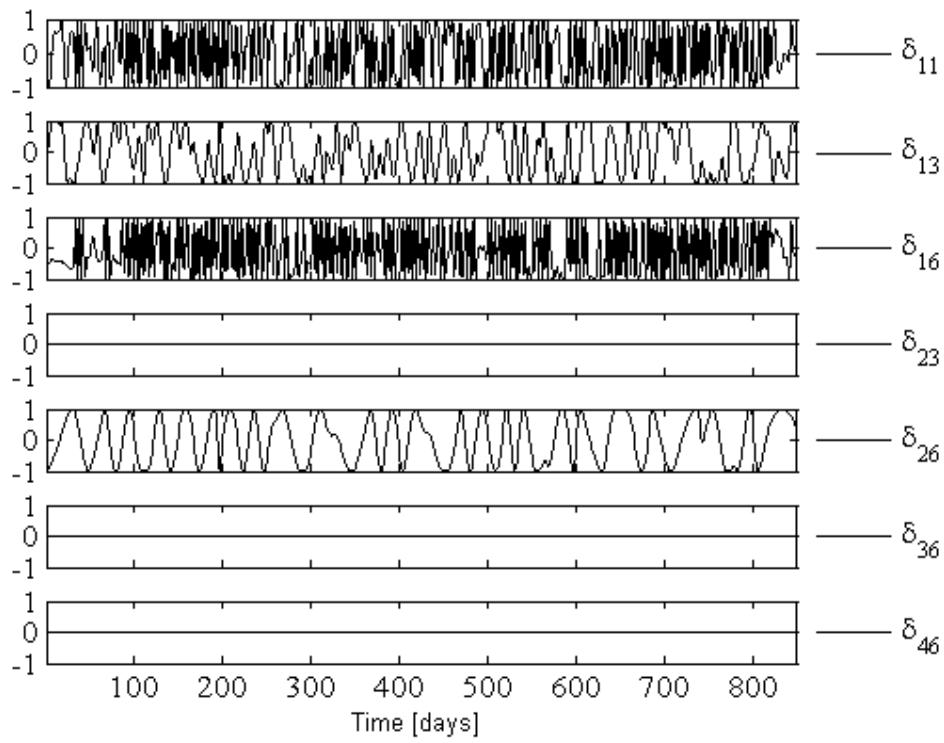


Figure 44. Phase synchronization of  $J_2$  (computed from LAGEOS 1 based on the GGM03C gravity field model) and AAM signals.

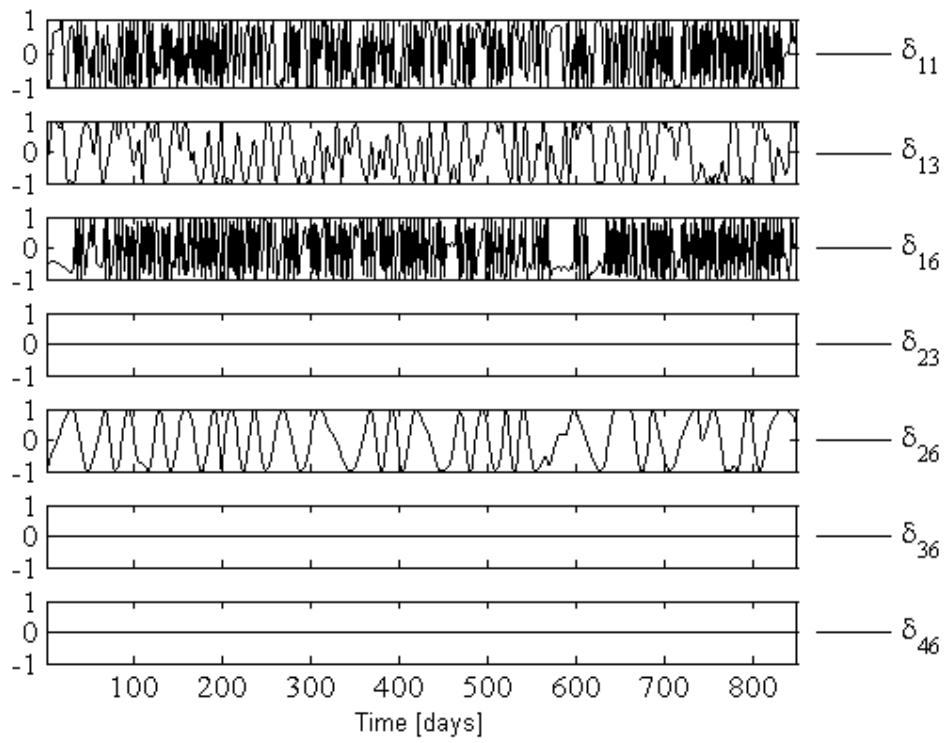


Figure 45. Phase synchronization of  $J_2$  (computed from LAGEOS 1 based on the AIUB-GRACE01S gravity field model) and AAM signals.

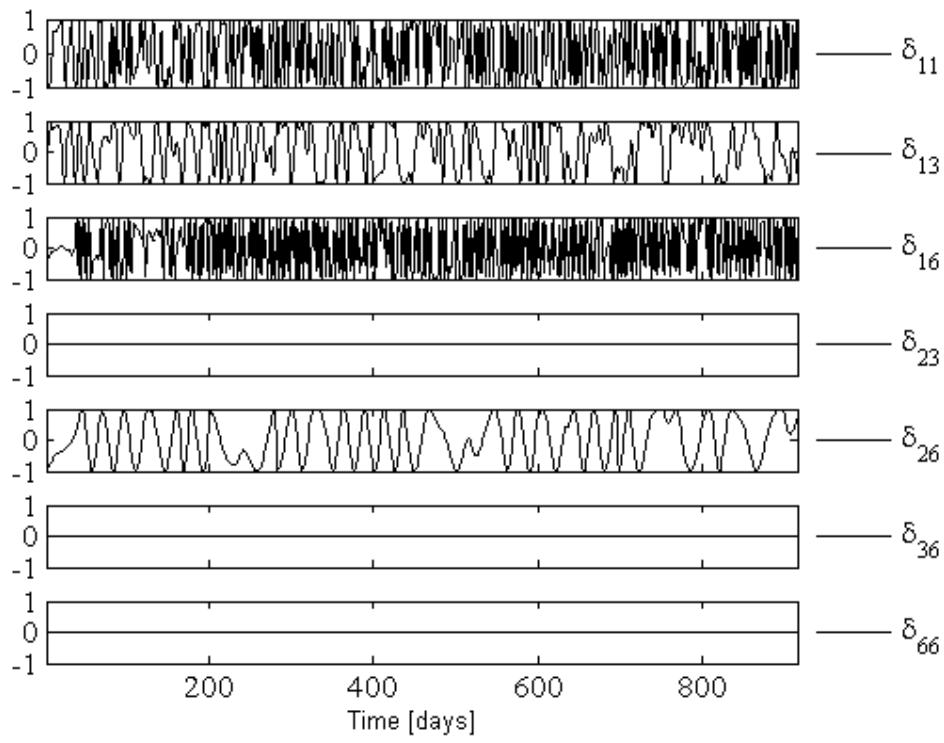


Figure 46. Phase synchronization of  $J_2$  (computed from LAGEOS 2 based on the EGM96 gravity field model) and AAM signals.

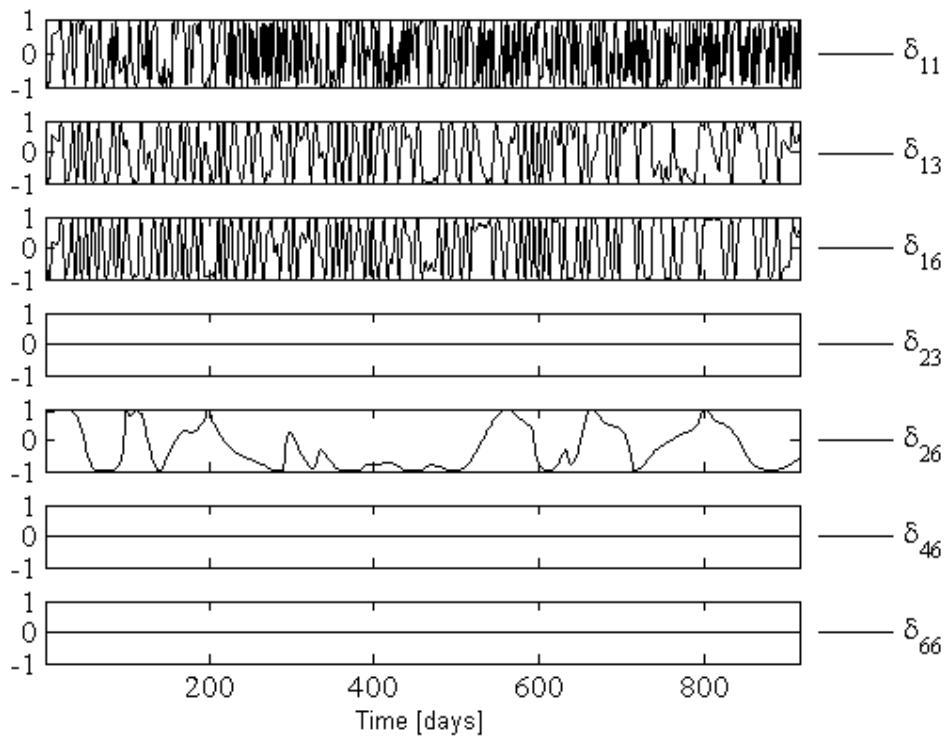


Figure 47. Phase synchronization of  $J_2$  (computed from LAGEOS 2 based on the GRIM5C1 gravity field model) and AAM signals.

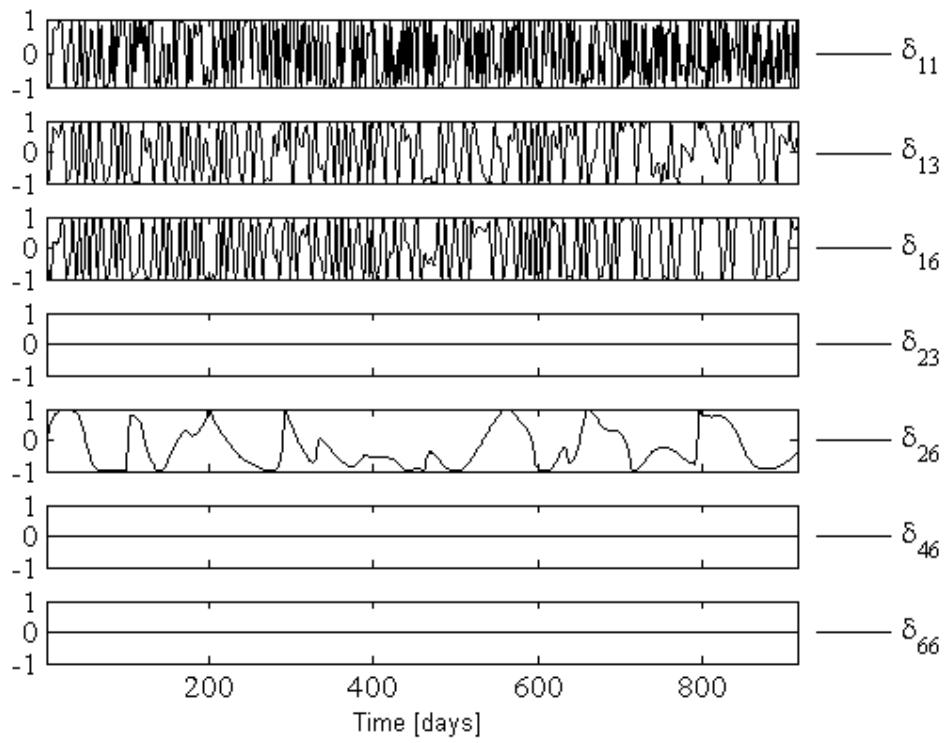


Figure 48. Phase synchronization of  $J_2$  (computed from LAGEOS 2 based on the GGM03C gravity field model) and AAM signals.

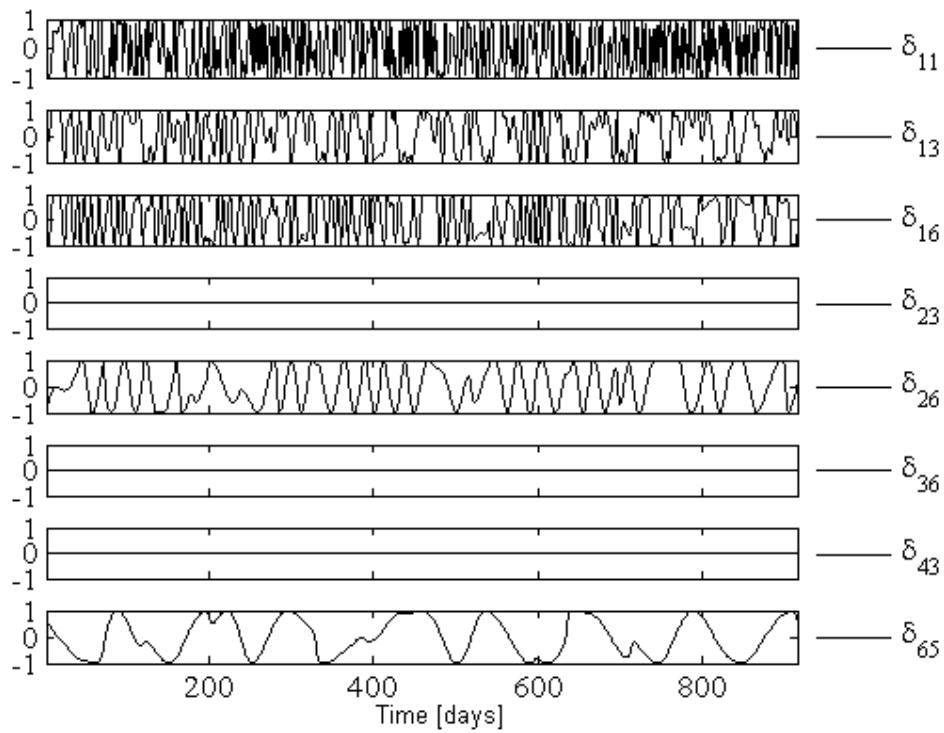


Figure 49. Phase synchronization of  $J_2$  (computed from LAGEOS 2 based on the AIUB-GRACE01S gravity field model) and AAM signals.