

**Minutes of the 8th Workshop of the
Stable North America Reference Frame (SNARF) Working Group**
Westin Hotel Market Street, San Francisco, 11 December 2007

18 Attendees

Geoff Blewitt (Chair)
Don Argus
Eric Calais
Mike Craymer
Peng Fang
Jeff Freymueller
Javier Gonzalez-Garcia
Bill Hammond
Tom Herring
Emma Hill
Corne Kreemer
Kristine Larson
Sue Owen
Chris Pearson
Hans-Peter Plag
Marcelo Santillan
Giovanni Sella
Mark Tamisiea

1. The Chair welcomed the participants and started the meeting at 12:05 pm.
2. Attendees presented oral summaries of their posters that were presented in the morning special session of the AGU: G21B “Developing a Stable North America Reference Frame”. Oral presentations also allowed for discussion. Presentations were given in the following order: Tom Herring, Mike Craymer, Giovanni Sella, Chris Pearson, Emma Hill, Eric Calais, Don Argus, Geoff Blewitt, Corne Kreemer, Jeff Freymueller, Peng Fang, and Mark Tamisiea.
3. A preliminary combination of solutions toward SNARF Version 2.0 was presented by Tom Herring. It is already clear that the new preliminary solution shows that there are significant improvements to be made over SNARF 1.0, and that we should push toward production and release of a SNARF 2.0. We agreed that we would aim for SNARF 2.0 to be completed by 29 February 2008, in time well before the NSF final report deadline (31 March 2008). We agreed that immediately following this meeting we would exchange emails to determine a work schedule required to meet this deadline. Contributing solutions will include the NAREF combination (Craymer), Canadian Base Network (campaign) solution (Craymer), University of Purdue’s combination (Calais), University of Fairbanks, Alaska solution (Freymueller), and University of Nevada, Reno solution (Blewitt). Improvements to these preliminary solutions will be made on the basis of shared information on station selection that takes into account period of available data, monumentation, station configuration changes, breaks in the time series, and combination methodology issues.
4. The group agreed that SNARF Version 2.0 should be the subject of a refereed publication. This will enable the adoption of an “official” version that can be referenced. NGS representatives (Pearson and Sella) indicated that such an official version could then be offered as an optional frame into which NGS products could be rotated for their customers. Various options were discussed for funding for such a publication (~\$2-3K page charges?), including raising of funds by the national agencies, and sharing of

costs among the co-authors using grant funds.

5. The SNARF group agreed that the AGU special session had been successful and well attended, and expressed the desire to continue with future SNARF workshops and conference special sessions as funding and logistics allow (now that the NSF workshop grant is coming to a close). Ideas to enable this included hosting meetings at institutions, funding travel from PI grants, and holding meetings at UNAVCO/EarthScope meetings where meeting rooms could be provided by UNAVCO/EarthScope and where many participants travel would already be covered (as UNAVCO members and EarthScope PIs). Three specific ideas for venues in 2008 included (1) UNAVCO meeting, March 11-13, Denver, (2) AGU Spring Meeting, May 26-31, Fort Lauderdale, or alternatively (3) IGS Analysis Center Workshop, Jun 2-6, Miami Beach, Florida. We agreed that we should meet in any event at the UNAVCO meeting to discuss release of SNARF version 2.0. Hammond noted that the AGU Spring Meeting could include a special session on SNARF. Gonzales-Garcia indicated the need to attract more participation from Mexico, to improve access to CGPS data in Mexico that is currently not publicly available, and the Spring AGU meeting might help to promote this. Sella noted that NGS is funding the IGS AC Workshop the following week, and so may be able to cover the cost of a meeting room for a SNARF workshop that week.

6. In the longer term, we can anticipate the need for a SNARF Version 3.0 following IGS reprocessing that uses the most up to date modeling and estimation strategies. At such a point we may consider proposing again to NSF to convene workshops to produce SNARF Version 3.0.

7. The meeting was adjourned at 4:20 pm.