

# The WinSAR Consortium and Bylaws

## I. Purpose

The western part of North America is the focus of intensive scientific research into a variety of plate boundary processes including earthquakes, volcanism, mountain building, and micro-plate tectonics. For example, the characterization and more complete understanding of the plate boundary deformation system, and its relationship to the occurrence of earthquakes, is a rich scientific problem that may ultimately lead to a reduction in seismic risk. Other natural processes that induce surface deformation such as land subsidence induced by water or oil extraction are also at work in western North America.

The technique of spaceborne Interferometric Synthetic Aperture Radar (InSAR) provides an excellent means of observing deformation over broad areas. It is capable of 10's of meters spatial resolution at monthly or greater intervals. InSAR has proven to be a powerful tool to characterize large-scale deformation associated with active faults. It also can resolve small-scale deformation features such as shallow creep, postseismic and interseismic deformation. And it is an ideal tool for measuring land subsidence and improving digital terrain models.

## II. Objectives

The Western North America InSAR (WInSAR) Consortium is a collection of universities and public agencies created to manage the acquisition and archiving of spaceborne InSAR data over western North America for their mutual benefit. The major objectives of WInSAR are to:

- Promote the use and development of InSAR technology for scientific investigations, in particular but not limited to, seismic and magmatic processes, plate boundary deformation, land subsidence, and topographic mapping.
- Acquire SAR imagery in western North America, archive and catalog the data, and disseminate it for use by member organizations.
- Provide value-added InSAR products and software for use by the scientific community.
- Advocate the open exchange of SAR data by seeking to enlarge the number of member organizations.
- Solicit funds and promote programs and space missions to meet these objectives.

## III. WInSAR Institutions

The not-for-profit organizations listed in Table 1 created WInSAR in order to obtain SAR data in sufficient quantity and at an acceptable price from agents of the European Space Agency (ESA - owner and operator of satellites ERS1 and ERS2) for academic purposes. Under agreements with ESA's agents (Spotimage and Eurimage), these organizations may communally share SAR data purchased through the consortium at a prescribed cost per image. Each WInSAR institution is represented by an appointed correspondent for purchasing data, and that correspondent will be the contact point for all issues regarding use of these data by persons in their respective home institutions. Each institution (i.e., the appointed correspondent) in WInSAR must be approved by ESA, and must sign the ESA data use contract.

***(Question: If this is a contractual arrangement, should it be signed by an official of the contracting institution?)***

Procedures for increasing the number of member institutions are described in the WInSAR-SC bylaws (see Section V below).

**TABLE 1**

Institution

Bryn Mawr College  
California Institute of Technology  
Central Washington University  
Cornell University  
Jet Propulsion Laboratory  
Lawrence Livermore National Laboratory  
Massachusetts Institute of Technology  
San Diego State University  
Stanford University  
University of Alaska  
University of Hawaii  
University of Miami  
University of Memphis  
University of Colorado, Boulder  
University of California, Los Angeles  
University of California, San Diego  
University of California, Berkeley  
University of California, Santa Cruz  
University of Nevada, Reno  
University of Southern California  
University of Utah  
U.S. Geological Survey  
University of Texas, Austin

**IV. Organization**

WInSAR is organized under the auspices of the Southern California Earthquake Center (SCEC), or its successor, in order to manage more effectively and to promote the use and development of InSAR technology in western North America. SCEC provides a broad community framework for effective application of the technology and for the anticipated growth of the consortium as InSAR becomes a mainstream technology for scientific research.

WInSAR is a Standing Committee (SC) of the Southern California Earthquake Center and answers to the SCEC Board of Directors (Figure 1). It is governed by the WInSAR-SC Bylaws (see Section VI below). The main points are outlined as follows:

- The WInSAR-SC consists of one representative from each WInSAR institution and the SCEC Center Director and SCEC Science Director. The representatives are appointed by the host institutions. The SC is the decision-making body for the consortium.
- New members may be added to the SC at such a time as their respective institutions are added to the list of WInSAR member institutions (see section VII on Addition of New Member Institutions).
- The SC will elect a Chair, Vice-chair, and Secretary for two year terms.
- An Executive Committee (EC) of the SC, drawn from and elected by members of the SC, will carry out day-to-day activities on behalf of the SC. The EC will consist of:
  - the Chair, Vice-chair, and Secretary of the SC, and
  - two members elected at large from the SC for two year terms.
- A quorum will consist of two-thirds of the standing committee. All decisions will require at least a majority vote of the entire SC membership for approval.
- The SC may establish ad hoc or permanent sub-committees as needed.

- Meetings of the SC will be open forums.
- There will be a Data Center Managers Working Group consisting of one representative of each data center. The chair of the Data Center Managers Working Group will be appointed by the chair of the WInSAR-SC.
- It is the intention of SCEC and WInSAR to assist candidate (ie, new members) institutions in securing approval from ESA to participate in the data sharing consortium.

## **V. New WInSAR Member Institutions**

WInSAR member institutions agreed to abide by the rules of the consortium, and to enter into a contractual agreement with ESA and their data distributors. Consequently, the addition of WInSAR member institutions is largely governed by the willingness of the candidates to enter into such a contract, and to honor its conditions.

It is the intention of SCEC and WInSAR to promote the widest possible scientific use of SAR data. Consequently, any research institution with a legitimate scientific use of such data is welcome to apply for membership in the consortium. It will be WInSAR and SCEC policy to assist such candidates in the process of obtaining ESA approval.

## **VI. Bylaws of WInSAR-SC**

### **ARTICLE I – Name**

#### *Section 1.*

The name of this SCEC committee is the Western North America InSAR Standing Committee (WInSAR-SC). WInSAR-SC operates as a standing committee of the Southern California Earthquake Center (SCEC). All references in these by-laws to SC refer to the Standing Committee of WInSAR.

### **ARTICLE II – Committee Members**

#### *Section 1.*

The following will be members of the WInSAR-SC:

1. One representative from each of the WInSAR institutions listed below. Each member institution will select their representative and the name of the institution's representative will be transmitted to the Executive Secretary of SCEC by the chair of the appropriate department at the member institution

Bryn Mawr College  
 California Institute of Technology  
 Central Washington University  
 Cornell University  
 Jet Propulsion Laboratory  
 Lawrence Livermore National Laboratory  
 San Diego State University  
 Stanford University  
 University of Alaska  
 University of Hawaii  
 University of Miami  
 University of Memphis  
 University of Colorado, Boulder  
 University of California, Los Angeles  
 University of California, San Diego

University of California, Berkeley  
University of California, Santa Cruz  
University of Southern California  
University of Utah  
U.S. Geological Survey  
University of Texas, Austin

2. The SCEC Center Director and SCEC Science Director or their duly appointed representatives.

*Section 2.*

Voting Rights. Each representative will have one vote.

**ARTICLE III – Standing Committee Powers**

*Section 1.*

Composition: The WInSAR-SC shall be composed of representatives of the institutions designated in Article II, Section 1 and the SCEC Director and Science Director.

*Section 2.*

Powers: Full power in the management of the affairs of WInSAR is vested in WInSAR-SC. To this end and without limitation of the foregoing or of its powers expressly conferred by these By-Laws, WInSAR-SC shall make rules or regulations for the management of the WInSAR Consortium, and create special committees as it shall deem best. WInSAR-SC shall have the power to fill vacancies in, and change the membership of, such committees as are constituted by it. In particular, WInSAR-SC will elect the members of its executive committee (WInSAR-EC) every two years by recorded vote or email immediately preceding the annual SCEC meeting.

*Section 3.*

Executive Committee: The Executive Committee (WInSAR-EC) shall formulate policy, develop and operate the WInSAR Consortium, and assure that operations conform to policy set by the WInSAR-SC. WInSAR-EC shall consist of five members (SC chair, SC vice-chair, SC secretary, and two at-large members) elected by WInSAR-SC every two years by recorded vote or email immediately preceding the annual SCEC meeting. The Chair of WInSAR-SC also serves as chair of WInSAR-EC. WInSAR-EC will have final authority on such issues as data purchases and operational goals (data distribution, archiving, and data products). WInSAR-EC will review and make recommendations on all proposals related to WInSAR operations before review and approval by the SCEC Board.

*Section 4.*

Term of Office: Each representative of the WInSAR-SC shall continue in office until a successor is chosen and qualifies; or until they die, resign or are replaced by the designation of Article II, Section 1.

*Section 5.*

Alternative Members: Any representative may appoint, for a specified time interval not to exceed one year, an alternate member from the same institution. The alternate member shall replace the regular member in all of the activities for the specified time interval.

*Section 6.*

Chair: The Chair will call and conduct meetings of WInSAR-SC and WInSAR-EC. The Chair shall, when present, preside at all meetings of WInSAR-SC and WInSAR-EC, and shall perform such other duties and exercise such other powers as shall from time to time be assigned

by WInSAR-SC and WInSAR-EC. The Chair shall have responsibility for the WInSAR Consortium and the budget. The Chair may appoint advisory committees or panels to assist in carrying out the business of the Consortium. The Chair oversees development and implementation of the plan for WInSAR. The Chair will maintain day-to-day oversight of WInSAR activities. The Chair will conduct the annual meetings. The Chair will make an annual report to the SCEC board on its activities. The Chair shall be a member of WInSAR-EC and shall be elected by a majority of the members of the WInSAR-SC.

*Section 7.*

Vice-Chair: The Vice-Chairman shall preside, in the absence of the Chair, at all meetings of WInSAR-SC and WInSAR-EC, and shall perform such other duties and exercise such other powers as shall from time to time be assigned by WInSAR-SC and WInSAR-EC. The Vice-Chair shall be a member of WInSAR-EC and shall be elected by a majority of the members of WInSAR-SC.

*Section 8.*

Secretary: The Secretary shall give notice of meetings of WInSAR-SC and WInSAR-EC, shall record all actions taken at such meetings and shall perform such other duties as shall from time to time be assigned by WInSAR-SC and WInSAR-EC. The Secretary shall be a member of WInSAR-EC and shall be elected by a majority of the members of WInSAR-SC.

*Section 9.*

Election and Term of Office of the Executive Committee: The Executive Committee shall be elected by WInSAR-SC by recorded ballot or email every two years immediately preceding the annual SCEC meeting. Each institutional member of WInSAR-SC is responsible for nominating candidates for election. The term of office will be two years and there will be no limit on the number of terms to which an individual can be re-elected.

*Section 10.*

Term of Office of the Members of the EC: The EC members shall be elected by WInSAR-SC from among its members for a term of two years or until his/her successor is chosen and qualifies, subject to approval of the SCEC Board of Directors. The term of office will be two years and there will be no limit on the number of terms to which EC members may be re-elected.

*Section 11.*

Vacancies: Any vacancy in any office may be filled for the un-expired portion of the term of such office by WInSAR-SC.

**ARTICLE IV – Meetings of WInSAR-SC and WInSAR-EC**

*Section 1.*

Annual Meeting: The WInSAR-SC and WInSAR-EC shall hold at least one annual meeting at a time convenient for all of their members for the purpose of conducting WInSAR Consortium business.

*Section 2.*

Special Meetings: Special meetings of WInSAR-SC and WInSAR-EC may be called by the Chair at any time.

*Section 3.*

Place of Meetings: The Chair shall designate the place of the annual meeting or any special meeting and which shall be specified in the notice of meeting or waiver of notice thereof.

*Section 4.*

Notice of Meetings: Notice of such meeting of WInSAR-SC and WInSAR-EC shall be given to each Representative, or by an officer directed by the Chair to give such notice by delivering to him or her personally, or by first-class mail or e-mail addressed to him or her at the address of his or her institution, a written or printed notice not less than ten nor more than sixty days before the date fixed for the meeting. Notice of any meeting need not be given to any representative, however, who submits a signed waiver of notice, whether before or after the meeting. The attendance of any representative at a meeting without protesting prior to the conclusion of the meeting, the lack of notice thereof shall constitute a waiver of notice by him or her. When a meeting is adjourned to another place or time, it shall not be necessary to give any notice of the adjourned meeting if the time and place to which the meeting is adjourned are announced at the meeting at which the adjournment is taken.

*Section 5.*

Quorum: Except as may be otherwise expressly required by law or these By-Laws, at all meetings of WInSAR-EC a two-thirds majority of the representatives or members of such committee then serving in such position shall constitute a quorum. If a quorum is not present, a majority of the representatives present may adjourn the meeting without notice other than by announcement at said meeting, until a quorum is present. At any duly adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the meeting as originally called.

*Section 6.*

WInSAR meetings: The WInSAR-SC and EC may, at the direction of the Chair, meet in executive session. At such executive session, the meeting will be open only to members of WInSAR-SC or EC, the SCEC Center Director, the SCEC Science Director, and other persons specifically invited by the Chair.

*Section 7.*

Voting: Each Representative shall be entitled to one vote. Except as otherwise expressly required by these By-Laws, all matters shall be decided by the affirmative vote of a majority of the total SC membership, if a quorum is then present. Voting may be conducted by e-mail.

*Section 8.*

Action Without a Meeting: Any action required or permitted to be taken by WInSAR-SC or any committee thereof, may be taken without a meeting if a majority of members of WInSAR-EC consent in writing or by e-mail to the adoption of a resolution authorizing the action. The resolution and the written consents thereof shall be filed with the minutes of the proceedings of WInSAR-SC or WInSAR-EC.

*Section 9.*

Participation by Conference Telephone: In any meeting of the WInSAR-SC or any committee thereof, any one or more Representatives or members of any such committee may participate by means of a conference telephone or similar communications equipment allowing all persons participating in the meeting to hear each other at the same time. Participation by such means shall constitute presence in person at a meeting.

## **ARTICLE V – Committees**

*Section 1.*

Establishment of Committees: Committees of the WInSAR Consortium may be established for specified terms or without limit. Actions by the WInSAR-SC or EC to create Committees shall specify the scope of Committee activity. Committee members shall be appointed by the Chair of the WInSAR-EC. Committees may not set policy or take binding action or publish

documents without the consent of the WInSAR-EC. Committees may not create or appoint Subcommittees without consent of the WInSAR-EC.

## **ARTICLE VI – Method of Elections**

### *Section 1.*

Procedure: Officers will be elected by WInSAR-SC in accordance with the procedures established in these by-laws.

### *Section 2.*

Election: Election shall be by written ballot, which may be cast in person by a representative at the meeting, or may be submitted by mail, facsimile, or e-mail if received by an appointed agent of SCEC before the meeting. Election shall be valid if ballots are received from 75% of the members of WInSAR-SC in accordance with this Article.

### *Section 2.*

Method of Voting: In the election of officers, a valid ballot shall contain at most one vote for each office; election shall be decided in favor of the nominee receiving a majority of votes representing a majority of the total membership of the SC.

### *Section 3.*

Counting of Ballots: Ballots shall be counted by an appointed agent of SCEC and the Chair of WInSAR-EC.

## **ARTICLE VII – Amendments**

### *Section 1.*

Amendments: All By-Laws of WInSAR-SC shall be subject to amendment or repeal and new By-Laws may be made by the affirmative vote of two-thirds of the entire WInSAR-SC at any annual or special meeting, the notice or waiver of notice of which shall have specified or summarized the proposed amendment, repeal or new By-Laws. All proposed amendments to these By-Laws are subject to the approval of the SCEC Board of Directors.