

## Connecting to CRTN

**RECOMMENDATION:** The information listed below will assist you in using CRTN. We strongly recommend that you print and save this page and keep a hardcopy with the equipment that will be used to connect to CRTN.

**It may take at least 7-10 business days to receive a CRTN NTRIP login and password. Once you receive your account information, it may take an additional 3-5 business days to troubleshoot connection issues with your instruments. Test your instruments with your CRTN NTRIP account before going out in the field.**

### NTRIP Data Access:

This connection requires the Username and Password and can be requested for free by registering at: [https://www.surveymonkey.com/s/CRTN\\_Registration](https://www.surveymonkey.com/s/CRTN_Registration). The CRTN base station data is accessed via the Internet using an NTRIP connection. The data stream format is RTCM 3.0. Username and Password ARE case sensitive. Once you've made a successful connection, your data controller will display a list of CRTN base stations for you to choose. If possible, always choose the closest base station. More information on NTRIP can be found at: <http://igs.bkg.bund.de/ntrip/ntriphompage>

### IP Addresses:

The CRTN network is divided into four sections according to the six zones of the California Coordinate System (CCS83):

CCS83 Zone 1-2: IP=132.239.152.175, Port=2104; CCS83 Zone 3-4: IP=132.239.152.175, Port=2103  
CCS83 Zone 5: IP=132.239.154.80 Port=2104; CCS83 Zone 6: IP=132.239.154.80, Port=2103

### CRTN Broadcast Positions:

The CRTN base station broadcast positions are CSRS Epoch 2017.50 (NAD83); please see <http://sopac-csrc.ucsd.edu/index.php/epoch2017/>. These are NOT WGS84 positions. A list of the broadcast positions can be found at: <http://sopac-csrc.ucsd.edu/index.php/crtm-stationlist/>

### CRTN Map:

CSRS Epoch 2017.50 (NAD83) interactive site map including Google Maps can be found at: <http://sopac-old.ucsd.edu/crtm.shtml>

### RTK Rover Equipment Settings:

Your RTK equipment must have and support the following items:

- Dual Frequency GPS or GNSS receiver (L1 & L2)
- Internet access modem (cell phone, MiFi device, etc.)
- Support NTRIP connection
- Support RTCM 3.0, 3.1 data format

Many of the basic RTK settings can be found on the following presentation at:  
[http://sopac-csrc.ucsd.edu/wp-content/uploads/2018/05/Connecting\\_to\\_CRTN\\_Presentation10.pdf](http://sopac-csrc.ucsd.edu/wp-content/uploads/2018/05/Connecting_to_CRTN_Presentation10.pdf)

### Email Updates:

In order to receive updates about the status of CRTN, you will be automatically subscribed to the CRTN Community Notices email list when you receive your CRTN login. Approximately every one to four months, you may receive an email update. If you wish to unsubscribe, please email Maria Turingan at [mariaturingan@ucsd.edu](mailto:mariaturingan@ucsd.edu).

### Forum:

We recommend that you subscribe to our forum where you can interact with expert users, troubleshoot issues, and obtain more information about CRTN (different login and password from CRTN NTRIP account). To register as a new user on the forum, please go to <http://geoforum.ucsd.edu/sopac/ubbthreads.php?ubb=newuser>

### CSRC Participation:

CRTN is part of a larger organization, the California Spatial Reference Center (<http://sopac-csrc.ucsd.edu>). To receive CSRC email updates and meeting information, please subscribe by emailing Maria (email above). During the CSRC semi-annual meetings, generally in May and October and alternating between Southern and Northern California, we give presentations and updates about CRTN.

### Data Policy:

Each organization has free access to a single NTRIP account for real-time access to RTCM 3.0 data. A donation or CRTN data service payment of \$1,000 annually gives you a CRTN Contributing Membership and provides access to an additional account. Please also see the CRTN Data Policy PDF file at <http://sopac-csrc.ucsd.edu/index.php/crtm-disclaimer/>

### Donations:

If you would like to give a donation to CRTN, please go to the UCSD Online Giving web page at <https://giveto.ucsd.edu/make-a-gift?sk=367>. Please do not include any comments online under special instructions. If you have instructions or comments, please email your gift confirmation with your comments to [mariaturingan@ucsd.edu](mailto:mariaturingan@ucsd.edu). If you would prefer to send your donation by mail or if you need an invoice for payment of CRTN data services, please email Maria.