FILE: MSEA00\_\_\_\_R\_20243280000\_01D\_30S\_MO.rnx OP1733780800519  
  
 6011   Warning -  OPUS-RS was able to find a set of reference stations  
 6011   with data suitable for use with your dataset. However, your   
 6011   position does not fall within the polygon enclosing these reference  
 6011   stations. This means that the geographic interpolation algorithms  
 6011   performed within OPUS-RS must instead perform extrapolation.  
 6011   Extrapolation, especially if your position is far from the   
 6011   reference stations, is prone to error. Use this solution with  
 6011   caution.  
          p474  
          azya  
          sbcc  
          p483  
          p494  
          cnpp  
          bill  
          p500  
          cat2  
        Your station is      23.1 KM outside the polygon enclosing the reference stations  
  
  
  
 6030   \*\*\*\*\*\*\*\*\*\*\*\*\*\*   WARNING   \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  
 6030   One or both of the standard deviations associated with  
 6030   horizontal coordinates is greater than 5 cm, and/or the  
 6030   standard deviation associated with the vertical coordinate  
 6030   is greater than 10 cm. This means that the vectors used to  
 6030   determine your position did not agree as well as expected.  
 6030   Often this is the result of problems with the adopted coordinates  
 6030   at one or more of the reference stations selected by OPUS-RS.  
 6030   If a problem reference station can be identified, it can  
 6030   be excluded with the Exclude feature on the OPUS Options  
 6030   page.  
 6030   
                              NGS OPUS-RS SOLUTION REPORT  
                              ========================  
  
All computed coordinate accuracies are listed as 1-sigma RMS values.  
For additional information: [https://urldefense.com/v3/\_\_https://www.ngs.noaa.gov/OPUS/about.jsp\*accuracy\_\_;Iw!!Mih3wA!DpkGQxi1hvn-FS93FuJlYI0EYmRv2NWuHV1SOeW4x117-kRtjCnHxanAnbuaSLEaUSlgeNmynh14RFaNaw$](https://urldefense.com/v3/__https:/www.ngs.noaa.gov/OPUS/about.jsp*accuracy__;Iw!!Mih3wA!DpkGQxi1hvn-FS93FuJlYI0EYmRv2NWuHV1SOeW4x117-kRtjCnHxanAnbuaSLEaUSlgeNmynh14RFaNaw$)  
  
      USER: [aubennett@ucsd.edu](mailto:aubennett@ucsd.edu)                       DATE: December 09, 2024  
RINEX FILE: msea328s.24o                             TIME: 21:54:50 UTC  
  
  
  SOFTWARE: rsgps  1.38 RS250.prl 1.99.3            START: 2024/11/23 18:09:00  
 EPHEMERIS: igs23416.eph [precise]                   STOP: 2024/11/23 18:59:30  
  NAV FILE: brdc3280.24n                         OBS USED:  2990 /  2990   : 100%  
  ANT NAME: ASH701945C\_M    NONE              QUALITY IND.  12.09/ 12.02  
ARP HEIGHT: .723                          NORMALIZED RMS:        0.510  
  
  
 REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)              ITRF2014 (EPOCH:2024.89556)  
  
         X:     -2455596.484(m)   0.023(m)          -2455597.701(m)   0.023(m)  
         Y:     -4767132.592(m)   0.127(m)          -4767130.847(m)   0.127(m)  
         Z:      3441710.239(m)   0.078(m)           3441710.390(m)   0.078(m)  
  
       LAT:   32 52  6.15263      0.007(m)        32 52  6.17426      0.007(m)  
     E LON:  242 44 47.62572      0.041(m)       242 44 47.55336      0.041(m)  
     W LON:  117 15 12.37428      0.041(m)       117 15 12.44664      0.041(m)  
    EL HGT:            6.018(m)   0.145(m)                 5.266(m)   0.145(m)  
 ORTHO HGT:           41.020(m)   0.146(m) [NAVD88 (Computed using GEOID18)]  
  
                        UTM COORDINATES    STATE PLANE COORDINATES  
                         UTM (Zone 11)         SPC (0406 CA 6)  
Northing (Y) [meters]     3636723.678           578273.311  
Easting (X)  [meters]      476289.820          1906089.244  
Convergence  [degrees]    -0.13754444          -0.55140556  
Point Scale                0.99960693           0.99998694  
Combined Factor            0.99960599           0.99998600  
  
US NATIONAL GRID DESIGNATOR: 11SMS7629036724(NAD 83)  
  
  
                              BASE STATIONS USED  
PID       DESIGNATION                        LATITUDE    LONGITUDE DISTANCE(m)  
DG9736 P474 FALLBROOK\_CS2004 CORS GRP      N332118.680 W1171455.242   53993.5  
DS2261 AZYA AZYA GILARIDGE RD CORS GRP     N324122.020 W1143550.864  249595.1  
DG8358 P483 JULIANBIN\_CS2004 CORS GRP      N330332.976 W1163409.522   67389.5  
AF9686 BILL BILL GRM                       N333441.663 W1170352.513   80677.8  
DN7406 P500 ALLAMERICNCS2005 CORS GRP      N324124.153 W1151759.705  184072.6  
  
                 NEAREST NGS PUBLISHED CONTROL POINT  
DC2121      SCRIPPS                        N325203.980 W1171508.369     123.8  
  
This position and the above vector components were computed without any   
knowledge by the National Geodetic Survey regarding the equipment or   
field operating procedures used.

FILE: MLAB3280.24o OP1733780668661  
  
 6011   Warning -  OPUS-RS was able to find a set of reference stations  
 6011   with data suitable for use with your dataset. However, your   
 6011   position does not fall within the polygon enclosing these reference  
 6011   stations. This means that the geographic interpolation algorithms  
 6011   performed within OPUS-RS must instead perform extrapolation.  
 6011   Extrapolation, especially if your position is far from the   
 6011   reference stations, is prone to error. Use this solution with  
 6011   caution.  
          p474  
          azya  
          sbcc  
          p483  
          p494  
          cnpp  
          bill  
          p500  
          cat2  
        Your station is      23.1 KM outside the polygon enclosing the reference stations  
  
  
  
                              NGS OPUS-RS SOLUTION REPORT  
                              ========================  
  
All computed coordinate accuracies are listed as 1-sigma RMS values.  
For additional information: [https://urldefense.com/v3/\_\_https://www.ngs.noaa.gov/OPUS/about.jsp\*accuracy\_\_;Iw!!Mih3wA!CYzpgubEOJ5PG6HnSMcVzPFv7-XN5OiWRm9G1\_SH00uy01roHPacZof11PKkG-P7fuHGxgC4\_0T7DLXczQ$](https://urldefense.com/v3/__https:/www.ngs.noaa.gov/OPUS/about.jsp*accuracy__;Iw!!Mih3wA!CYzpgubEOJ5PG6HnSMcVzPFv7-XN5OiWRm9G1_SH00uy01roHPacZof11PKkG-P7fuHGxgC4_0T7DLXczQ$)  
  
      USER: [aubennett@ucsd.edu](mailto:aubennett@ucsd.edu)                       DATE: December 09, 2024  
RINEX FILE: mlab328r.24o                             TIME: 21:53:08 UTC  
  
  
  SOFTWARE: rsgps  1.38 RS250.prl 1.99.3            START: 2024/11/23 17:09:30  
 EPHEMERIS: igs23416.eph [precise]                   STOP: 2024/11/23 18:59:30  
  NAV FILE: brdc3280.24n                         OBS USED:  9968 / 10624   :  94%  
  ANT NAME: ASH701945B\_M    NONE              QUALITY IND.  10.91/ 44.02  
ARP HEIGHT: 1.1573                        NORMALIZED RMS:        0.315  
  
  
 REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)              ITRF2014 (EPOCH:2024.89550)  
  
         X:     -2455560.462(m)   0.009(m)          -2455561.679(m)   0.009(m)  
         Y:     -4767172.987(m)   0.012(m)          -4767171.242(m)   0.012(m)  
         Z:      3441671.997(m)   0.010(m)           3441672.148(m)   0.010(m)  
  
       LAT:   32 52  4.76796      0.006(m)        32 52  4.78956      0.006(m)  
     E LON:  242 44 49.56900      0.008(m)       242 44 49.49664      0.008(m)  
     W LON:  117 15 10.43100      0.008(m)       117 15 10.50336      0.008(m)  
    EL HGT:            1.572(m)   0.015(m)                 0.819(m)   0.015(m)  
 ORTHO HGT:           36.571(m)   0.023(m) [NAVD88 (Computed using GEOID18)]  
  
                        UTM COORDINATES    STATE PLANE COORDINATES  
                         UTM (Zone 11)         SPC (0406 CA 6)  
Northing (Y) [meters]     3636680.917           578230.171  
Easting (X)  [meters]      476340.219          1906139.351  
Convergence  [degrees]    -0.13725000          -0.55111111  
Point Scale                0.99960690           0.99998699  
Combined Factor            0.99960665           0.99998674  
  
US NATIONAL GRID DESIGNATOR: 11SMS7634036681(NAD 83)  
  
  
                              BASE STATIONS USED  
PID       DESIGNATION                        LATITUDE    LONGITUDE DISTANCE(m)  
DG9736 P474 FALLBROOK\_CS2004 CORS GRP      N332118.680 W1171455.242   54035.7  
DM7580 SBCC SBCC\_SCGN\_CS1999 CORS GRP      N333310.788 W1173941.302   84987.0  
DG8358 P483 JULIANBIN\_CS2004 CORS GRP      N330332.976 W1163409.522   67355.2  
DN7403 P494 WESTSIDEESCS2005 CORS GRP      N324534.739 W1154355.389  142926.9  
DH7053 CNPP CNPP\_SCGN\_CS1999 CORS GRP      N335127.464 W1173632.062  114654.8  
AF9686 BILL BILL GRM                       N333441.663 W1170352.513   80708.4  
DN7406 P500 ALLAMERICNCS2005 CORS GRP      N324124.153 W1151759.705  184018.1  
DL7682 CAT2 CAT2\_SCGN\_CS2000 CORS GRP      N331841.808 W1182001.689  112269.7  
  
                 NEAREST NGS PUBLISHED CONTROL POINT  
DC2121      SCRIPPS                        N325203.980 W1171508.369      58.8  
  
This position and the above vector components were computed without any   
knowledge by the National Geodetic Survey regarding the equipment or   
field operating procedures used.

FILE: BARN00\_\_\_\_R\_20243280000\_01D\_30S\_MO.rnx OP1733777974104  
  
 6011   Warning -  OPUS-RS was able to find a set of reference stations  
 6011   with data suitable for use with your dataset. However, your   
 6011   position does not fall within the polygon enclosing these reference  
 6011   stations. This means that the geographic interpolation algorithms  
 6011   performed within OPUS-RS must instead perform extrapolation.  
 6011   Extrapolation, especially if your position is far from the   
 6011   reference stations, is prone to error. Use this solution with  
 6011   caution.  
          p474  
          azya  
          sbcc  
          p483  
          p494  
          cnpp  
          bill  
          p500  
          cat2  
        Your station is      23.1 KM outside the polygon enclosing the reference stations  
  
  
  
                              NGS OPUS-RS SOLUTION REPORT  
                              ========================  
  
All computed coordinate accuracies are listed as 1-sigma RMS values.  
For additional information: [https://urldefense.com/v3/\_\_https://www.ngs.noaa.gov/OPUS/about.jsp\*accuracy\_\_;Iw!!Mih3wA!DglLOiCNoXjFv1TIgMhOg9LZQ8SZkbZ7ed8GVkLEsdrncTCXSD3Poz3VyXXNCqebz7xaBoHB09ajL3EOFA$](https://urldefense.com/v3/__https:/www.ngs.noaa.gov/OPUS/about.jsp*accuracy__;Iw!!Mih3wA!DglLOiCNoXjFv1TIgMhOg9LZQ8SZkbZ7ed8GVkLEsdrncTCXSD3Poz3VyXXNCqebz7xaBoHB09ajL3EOFA$)  
  
      USER: [aubennett@ucsd.edu](mailto:aubennett@ucsd.edu)                       DATE: December 09, 2024  
RINEX FILE: barn328s.24o                             TIME: 21:01:55 UTC  
  
  
  SOFTWARE: rsgps  1.38 RS293.prl 1.99.3            START: 2024/11/23 18:30:00  
 EPHEMERIS: igs23416.eph [precise]                   STOP: 2024/11/23 18:59:30  
  NAV FILE: brdc3280.24n                         OBS USED:  2624 /  2624   : 100%  
  ANT NAME: ASH701945B\_M    NONE              QUALITY IND.  18.01/  7.28  
ARP HEIGHT: 1.492                         NORMALIZED RMS:        0.332  
  
  
 REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)              ITRF2014 (EPOCH:2024.89558)  
  
         X:     -2455545.854(m)   0.017(m)          -2455547.071(m)   0.017(m)  
         Y:     -4767144.873(m)   0.017(m)          -4767143.128(m)   0.017(m)  
         Z:      3441721.013(m)   0.017(m)           3441721.164(m)   0.017(m)  
  
       LAT:   32 52  6.66250      0.006(m)        32 52  6.68413      0.006(m)  
     E LON:  242 44 49.57332      0.011(m)       242 44 49.50100      0.011(m)  
     W LON:  117 15 10.42668      0.011(m)       117 15 10.49900      0.011(m)  
    EL HGT:            1.562(m)   0.027(m)                 0.809(m)   0.027(m)  
 ORTHO HGT:           36.560(m)   0.032(m) [NAVD88 (Computed using GEOID18)]  
  
                        UTM COORDINATES    STATE PLANE COORDINATES  
                         UTM (Zone 11)         SPC (0406 CA 6)  
Northing (Y) [meters]     3636739.257           578288.530  
Easting (X)  [meters]      476340.471          1906140.025  
Convergence  [degrees]    -0.13725000          -0.55110833  
Point Scale                0.99960690           0.99998692  
Combined Factor            0.99960665           0.99998667  
  
US NATIONAL GRID DESIGNATOR: 11SMS7634036739(NAD 83)  
  
  
                              BASE STATIONS USED  
PID       DESIGNATION                        LATITUDE    LONGITUDE DISTANCE(m)  
DG9736 P474 FALLBROOK\_CS2004 CORS GRP      N332118.680 W1171455.242   53977.4  
DS2261 AZYA AZYA GILARIDGE RD CORS GRP     N324122.020 W1143550.864  249545.6  
DM7580 SBCC SBCC\_SCGN\_CS1999 CORS GRP      N333310.788 W1173941.302   84934.9  
DG8358 P483 JULIANBIN\_CS2004 CORS GRP      N330332.976 W1163409.522   67336.6  
DH7053 CNPP CNPP\_SCGN\_CS1999 CORS GRP      N335127.464 W1173632.062  114598.9  
AF9686 BILL BILL GRM                       N333441.663 W1170352.513   80651.5  
DN7406 P500 ALLAMERICNCS2005 CORS GRP      N324124.153 W1151759.705  184023.7  
DL7682 CAT2 CAT2\_SCGN\_CS2000 CORS GRP      N331841.808 W1182001.689  112244.0  
  
                 NEAREST NGS PUBLISHED CONTROL POINT  
DC2121      SCRIPPS                        N325203.980 W1171508.369      98.4  
  
This position and the above vector components were computed without any   
knowledge by the National Geodetic Survey regarding the equipment or   
field operating procedures used.

FILE: MGRD3280.24o OP1733777938347  
  
 6011   Warning -  OPUS-RS was able to find a set of reference stations  
 6011   with data suitable for use with your dataset. However, your   
 6011   position does not fall within the polygon enclosing these reference  
 6011   stations. This means that the geographic interpolation algorithms  
 6011   performed within OPUS-RS must instead perform extrapolation.  
 6011   Extrapolation, especially if your position is far from the   
 6011   reference stations, is prone to error. Use this solution with  
 6011   caution.  
          p474  
          azya  
          sbcc  
          p483  
          p494  
          cnpp  
          bill  
          p500  
          cat2  
        Your station is      23.1 KM outside the polygon enclosing the reference stations  
  
  
  
                              NGS OPUS-RS SOLUTION REPORT  
                              ========================  
  
All computed coordinate accuracies are listed as 1-sigma RMS values.  
For additional information: [https://urldefense.com/v3/\_\_https://www.ngs.noaa.gov/OPUS/about.jsp\*accuracy\_\_;Iw!!Mih3wA!HKLXKgmkvlfQJAxExiUbzlI5bDo-g7F2jea7WKaMCeri9r848WKzTKyg4JGNsQOMI7NJXPGNz5TIO57SsQ$](https://urldefense.com/v3/__https:/www.ngs.noaa.gov/OPUS/about.jsp*accuracy__;Iw!!Mih3wA!HKLXKgmkvlfQJAxExiUbzlI5bDo-g7F2jea7WKaMCeri9r848WKzTKyg4JGNsQOMI7NJXPGNz5TIO57SsQ$)  
  
      USER: [aubennett@ucsd.edu](mailto:aubennett@ucsd.edu)                       DATE: December 09, 2024  
RINEX FILE: mgrd328r.24o                             TIME: 21:01:39 UTC  
  
  
  SOFTWARE: rsgps  1.38 RS272.prl 1.99.3            START: 2024/11/23 17:09:30  
 EPHEMERIS: igs23416.eph [precise]                   STOP: 2024/11/23 18:59:30  
  NAV FILE: brdc3280.24n                         OBS USED:  9704 / 10064   :  96%  
  ANT NAME: ASH701945B\_M    NONE              QUALITY IND.  10.91/  8.74  
ARP HEIGHT: 1.197                         NORMALIZED RMS:        0.350  
  
  
 REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)              ITRF2014 (EPOCH:2024.89550)  
  
         X:     -2455584.296(m)   0.009(m)          -2455585.513(m)   0.009(m)  
         Y:     -4767124.235(m)   0.013(m)          -4767122.490(m)   0.013(m)  
         Z:      3441723.202(m)   0.010(m)           3441723.353(m)   0.010(m)  
  
       LAT:   32 52  6.73529      0.006(m)        32 52  6.75692      0.006(m)  
     E LON:  242 44 47.89529      0.008(m)       242 44 47.82293      0.008(m)  
     W LON:  117 15 12.10471      0.008(m)       117 15 12.17707      0.008(m)  
    EL HGT:            2.126(m)   0.016(m)                 1.373(m)   0.016(m)  
 ORTHO HGT:           37.127(m)   0.024(m) [NAVD88 (Computed using GEOID18)]  
  
                        UTM COORDINATES    STATE PLANE COORDINATES  
                         UTM (Zone 11)         SPC (0406 CA 6)  
Northing (Y) [meters]     3636741.604           578291.192  
Easting (X)  [meters]      476296.869          1906096.424  
Convergence  [degrees]    -0.13750278          -0.55136667  
Point Scale                0.99960693           0.99998692  
Combined Factor            0.99960660           0.99998659  
  
US NATIONAL GRID DESIGNATOR: 11SMS7629736742(NAD 83)  
  
  
                              BASE STATIONS USED  
PID       DESIGNATION                        LATITUDE    LONGITUDE DISTANCE(m)  
DG9736 P474 FALLBROOK\_CS2004 CORS GRP      N332118.680 W1171455.242   53975.5  
DM7580 SBCC SBCC\_SCGN\_CS1999 CORS GRP      N333310.788 W1173941.302   84913.4  
DG8358 P483 JULIANBIN\_CS2004 CORS GRP      N330332.976 W1163409.522   67377.3  
DN7403 P494 WESTSIDEESCS2005 CORS GRP      N324534.739 W1154355.389  142974.9  
DH7053 CNPP CNPP\_SCGN\_CS1999 CORS GRP      N335127.464 W1173632.062  114584.2  
AF9686 BILL BILL GRM                       N333441.663 W1170352.513   80658.7  
DN7406 P500 ALLAMERICNCS2005 CORS GRP      N324124.153 W1151759.705  184067.3  
DL7682 CAT2 CAT2\_SCGN\_CS2000 CORS GRP      N331841.808 W1182001.689  112203.9  
  
                 NEAREST NGS PUBLISHED CONTROL POINT  
DC2121      SCRIPPS                        N325203.980 W1171508.369     129.0  
  
This position and the above vector components were computed without any   
knowledge by the National Geodetic Survey regarding the equipment or   
field operating procedures used.