

| Solomon2  |             |      | DSSVPD Mapping Acquisition Log |         |          |           |           |           |         |        |                                                                                                                                           |              | Data Processing Log              |               |                |         |  |
|-----------|-------------|------|--------------------------------|---------|----------|-----------|-----------|-----------|---------|--------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------|---------------|----------------|---------|--|
| Date      | Time [UTC]  | Line | Depth                          | SV used | LAT      | LON       | COG [deg] | SOG [m/s] | Actions | Mapper | Notes                                                                                                                                     | KMALL Copied | QIMERA Cleaned                   | ALL Converted | FMGT BS Mosaic | FMW/WCI |  |
| 5/22/2019 | 07:55:00 AM | 0000 | 8591                           | 1542.8  | 11:41.9S | 165:39.5E | 64.5      | 5.1       |         | Cassie | Turned sonar back on to finish trench mapping – new SIS project: Solomon2. SVP: WOA09_20190522.asvp, SV profile = 1542.7                  | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 08:25:00 AM | 0001 | 8195                           | 1542.7  | 11:46.2S | 165:42.2E | 160       | 4.8       |         | Masa   | Night mapping lines. Sea state is still rough, so data are noisy.                                                                         | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 08:55:00 AM | 0002 | 8038                           |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 09:25:00 AM | 0003 |                                |         |          |           |           |           |         |        |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 09:55:00 AM | 0004 |                                |         |          |           |           |           |         |        |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 10:25:00 AM | 0005 |                                |         |          |           |           |           |         | Masa   | Data quality was so bad...                                                                                                                | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 10:55:00 AM | 0006 | 8467                           | 1542.2  | 12:08.5S | 165:49.5E | 157       | 4.5       |         | Masa   | Data was still so bad... Sector Coverage = 35/35 deg (from 45/45 deg). Transmit Angle Along = 2.0 deg (from 4 deg). Range Gate = 'Small'. | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 11:25:00 AM | 0007 | 8549                           | 1542.5  |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 11:55:00 AM | 0008 | 8492                           | 1542.8  |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 12:25:00 PM | 0009 |                                |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 12:55:00 PM | 0010 |                                |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 01:25:00 PM | 0011 |                                |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 01:55:00 PM | 0012 | 8874                           | 1542.6  | 12:32.9S | 165:58.2E | 158       | 4.1       |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 02:25:00 PM | 0013 |                                |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 02:55:00 PM | 0014 | 8361                           | 1542.7  | 12:41.5S | 166:01.1E | 159       | 4.3       |         | Masa   | Sector Coverage = 40/40 deg (from 35/35 deg), because sea state became a little bit better.                                               | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 03:25:00 PM | 0015 | 8311                           | 1542.7  | 12:44.4S | 166:02.1E | 160       | 4.7       |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 03:55:00 PM | 0016 |                                |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 04:25:00 PM | 0017 | 8094                           | 1542.6  | 12:54.5S | 166:05.2E | 170       | 4.5       |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 04:55:00 PM | 0018 | 8179                           |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 05:25:00 PM | 0019 |                                |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 05:55:00 PM | 0020 |                                |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 06:25:00 PM | 0021 | 7440                           |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 06:55:00 PM | 0022 | 6751                           | 1542.2  | 13:15.3S | 166:08.5E | 169       | 4.8       |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 07:25:00 PM | 0023 | 6364                           |         |          |           |           |           |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 07:55:00 PM | 0024 | 6442                           | 1542    | 13:24.2S | 166:10.0E | 170       | 4.7       |         | Masa   |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 08:25:00 PM | 0025 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 08:55:00 PM | 0026 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 09:25:00 PM | 0027 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 09:55:00 PM | 0028 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 10:25:00 PM | 0029 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 10:55:00 PM | 0030 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 11:25:00 PM | 0031 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/22/2019 | 11:55:00 PM | 0032 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(SolomonTrench_CUBE_200m) | Yes           | Yes            | -       |  |
| 5/23/2019 | 12:25:00 AM | 0033 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 12:55:00 AM | 0034 |                                |         |          |           |           |           |         | Cassie | Switched directions out of the trench to answer a distress call                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 01:25:00 AM | 0035 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 01:55:00 AM | 0036 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 02:25:00 AM | 0037 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 02:55:00 AM | 0038 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 03:25:00 AM | 0039 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 03:55:00 AM | 0040 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 04:25:00 AM | 0041 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 04:55:00 AM | 0042 | 2948                           | 1541    | 14:31.5S | 165:39.7E | 166       | 4.5       |         | Cassie | changed heading again – still answering distress call                                                                                     | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 05:25:00 AM | 0043 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 05:55:00 AM | 0044 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 06:25:00 AM | 0045 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |
| 5/23/2019 | 06:55:00 AM | 0046 |                                |         |          |           |           |           |         | Cassie |                                                                                                                                           | YES          | YES<br>(Transit_Tonga_CUBE_100m) | NO            | NO             | -       |  |

|           |             |      |      |        |          |           |    |     |  |        |                                                                            |     |                                  |    |    |   |
|-----------|-------------|------|------|--------|----------|-----------|----|-----|--|--------|----------------------------------------------------------------------------|-----|----------------------------------|----|----|---|
| 5/23/2019 | 07:25:00 AM | 0047 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 07:55:00 AM | 0048 |      |        |          |           |    |     |  | Cassie | Depth Setting = "Medium". Sector Coverage = 50/50 deg (from 40/40 deg).    | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 08:25:00 AM | 0049 |      |        |          |           |    |     |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 08:55:00 AM | 0050 |      |        |          |           |    |     |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 09:25:00 AM | 0051 | 3900 | 1540.8 | 14:43.6S | 165:12.0E |    |     |  | Masa   | Depth Setting = "Deep". Turning to the opposite direction.                 | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 09:55:00 AM | 0052 | 3562 | 1540.7 |          |           |    |     |  | Masa   | Depth Setting = "Medium".<br>SVP: WOA09_20190523.asvp, SV profile = 1541.5 | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 10:25:00 AM | 0053 |      |        |          |           |    |     |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 10:55:00 AM | 0054 | 2089 | 1540.6 | 14:42.8S | 165:25.9E | 82 | 5.2 |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 11:25:00 AM | 0055 |      |        |          |           |    |     |  | Masa   | Depth Setting = "Deep".                                                    | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 11:55:00 AM | 0056 | 3487 | 1540.7 | 14:41.5S | 165:36.7E | 83 | 5.2 |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 12:25:00 PM | 0057 | 3500 | 1540.8 | 14:41.4S | 165:37.8E | 83 | 5.3 |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 12:55:00 PM | 0058 | 3405 | 1541.2 | 14:40.7S | 165:43.5E | 84 | 5.3 |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 01:25:00 PM | 0059 | 2610 | 1541.4 | 14:40.1S | 165:48.5E | 82 | 5.5 |  | Masa   | Depth Setting = "Medium".                                                  | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 01:55:00 PM | 0060 | 2432 | 1542.1 | 14:39.0S | 165:57.4E | 83 | 5.3 |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 02:25:00 PM | 0061 | 2542 |        |          |           |    |     |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 02:55:00 PM | 0062 |      |        |          |           |    |     |  | Masa   | Depth Setting = "Deep".                                                    | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 03:25:00 PM | 0063 |      |        |          |           |    |     |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 03:55:00 PM | 0064 | 3747 | 1542   | 14:36.3S | 166:17.4E | 78 | 5.2 |  | Masa   |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 04:25:00 PM | 0065 | 3971 | 1542   | 14:35.8S | 166:20.2E | 79 | 5.1 |  | Masa   | Depth Setting = "Medium".                                                  | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 04:55:00 PM | 0066 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 05:25:00 PM | 0067 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 05:55:00 PM | 0068 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 06:25:00 PM | 0069 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 06:55:00 PM | 0070 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 07:25:00 PM | 0071 | 800  | 1542   | 14.585S  | 166.864E  |    |     |  | Cassie | Turned off sonar – too shallow                                             | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 08:53:00 PM | 0072 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 09:23:00 PM | 0073 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 09:53:00 PM | 0074 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 10:23:00 PM | 0075 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 10:53:00 PM | 0076 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 11:23:00 PM | 0077 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/23/2019 | 11:53:00 PM | 0078 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 12:23:00 AM | 0079 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 12:53:00 AM | 0080 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 01:23:00 AM | 0081 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 01:53:00 AM | 0082 |      |        |          |           |    |     |  | Cassie | Turned off sonar – too shallow                                             | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 03:24:00 AM | 0083 |      |        |          |           |    |     |  | Cassie | Turned sonar back on                                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 03:54:00 AM | 0084 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 04:24:00 AM | 0085 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 04:54:00 AM | 0086 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 05:24:00 AM | 0087 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 05:54:00 AM | 0088 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 06:24:00 AM | 0089 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 06:54:00 AM | 0090 |      |        |          |           |    |     |  | Cassie |                                                                            | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 07:24:00 AM | 0091 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 07:54:00 AM | 0092 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 08:24:00 AM | 0093 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 08:54:00 AM | 0094 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 09:24:00 AM | 0095 |      |        |          |           |    |     |  |        | Night mapping lines. No one operating                                      | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |

|           |             |      |      |        |          |           |       |      |        |                                       |     |                                  |    |    |   |
|-----------|-------------|------|------|--------|----------|-----------|-------|------|--------|---------------------------------------|-----|----------------------------------|----|----|---|
| 5/24/2019 | 09:54:00 AM | 0096 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 10:24:00 AM | 0097 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 10:54:00 AM | 0098 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 11:24:00 AM | 0099 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 11:54:00 AM | 0100 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 12:24:00 PM | 0101 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 12:54:00 PM | 0102 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 01:24:00 PM | 0103 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 01:54:00 PM | 0104 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 02:24:00 PM | 0105 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 02:54:00 PM | 0106 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 03:24:00 PM | 0107 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 03:54:00 PM | 0108 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 04:24:00 PM | 0109 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 04:54:00 PM | 0110 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 05:24:00 PM | 0111 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 05:54:00 PM | 0112 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 06:24:00 PM | 0113 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 06:54:00 PM | 0114 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 07:24:00 PM | 0115 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 07:54:00 PM | 0116 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 08:24:00 PM | 0117 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 08:54:00 PM | 0118 | 3473 | 1542   | 16.0875  | 170.99E   | 118.4 | 5.02 | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 09:24:00 PM | 0119 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 09:54:00 PM | 0120 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 10:24:00 PM | 0121 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 10:54:00 PM | 0122 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 11:24:00 PM | 0123 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/24/2019 | 11:54:00 PM | 0124 |      |        |          |           |       |      | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 12:24:00 AM | 0125 | 3394 | 1542   | 16.335   | 171.494   | 118.7 | 5.33 | Cassie |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 12:54:00 AM | 0126 | 3046 | 1542.3 |          |           |       |      | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 01:24:00 AM | 0127 |      |        |          |           |       |      | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 01:54:00 AM | 0128 |      |        |          |           |       |      | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 02:24:00 AM | 0129 | 2898 | 1542.7 | 16:30.5S | 171:51.4E | 115   | 5.3  | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 02:54:00 AM | 0130 |      |        |          |           |       |      | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 03:24:00 AM | 0131 |      |        |          |           |       |      | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 03:54:00 AM | 0132 |      |        |          |           |       |      | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 04:24:00 AM | 0133 |      |        |          |           |       |      | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 04:54:00 AM | 0134 | 2870 | 1524.1 |          |           |       |      | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 05:24:00 AM | 0135 | 3183 | 1541.8 | 16:44.5S | 172:19.8E | 116   | 5.3  | Masa   |                                       | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 05:54:00 AM | 0136 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 06:24:00 AM | 0137 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 06:54:00 AM | 0138 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 07:24:00 AM | 0139 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 07:54:00 AM | 0140 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 08:24:00 AM | 0141 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 08:54:00 AM | 0142 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 09:24:00 AM | 0143 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 09:54:00 AM | 0144 |      |        |          |           |       |      |        | Night mapping lines. No one operating | YES | YES<br>(Transit_Tonga_CUBE_100m) | NO | NO | - |

|           |             |      |      |      |        |         |       |     |           |        |                                               |     |                           |    |    |   |
|-----------|-------------|------|------|------|--------|---------|-------|-----|-----------|--------|-----------------------------------------------|-----|---------------------------|----|----|---|
| 5/25/2019 | 10:24:00 AM | 0145 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 10:54:00 AM | 0146 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 11:24:00 AM | 0147 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 11:54:00 AM | 0148 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 12:24:00 PM | 0149 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 12:54:00 PM | 0150 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 01:24:00 PM | 0151 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 01:54:00 PM | 0152 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 02:24:00 PM | 0153 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 02:54:00 PM | 0154 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 03:24:00 PM | 0155 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 03:54:00 PM | 0156 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 04:24:00 PM | 0157 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 04:54:00 PM | 0158 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 05:24:00 PM | 0159 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 05:54:00 PM | 0160 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 06:24:00 PM | 0161 |      |      |        |         |       |     |           |        | Night mapping lines. No one operating         | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 06:54:00 PM | 0162 |      |      |        |         |       |     |           | Cassie |                                               | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 07:24:00 PM | 0163 | 2838 | 1538 | 17.875 | 174.657 | 118.5 | 5.4 | Added SVP | Cassie | Added SVP Profile                             | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 07:54:00 PM | 0164 |      |      |        |         |       |     |           | Cassie | SVP: WDA09_20190525.aspx, SV profile = 1539.4 | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 08:24:00 PM | 0165 |      |      |        |         |       |     |           | Cassie |                                               | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 08:54:00 PM | 0166 |      |      |        |         |       |     |           | Cassie |                                               | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 09:24:00 PM | 0167 |      |      |        |         |       |     |           | Cassie |                                               | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 09:54:00 PM | 0168 |      |      |        |         |       |     |           | Cassie |                                               | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 10:24:00 PM | 0169 |      |      |        |         |       |     |           | Cassie |                                               | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 10:54:00 PM | 0170 |      |      |        |         |       |     |           | Cassie |                                               | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |
| 5/25/2019 | 11:24:00 PM | 0171 |      |      |        |         |       |     |           | Cassie |                                               | YES | (Transit_Tonga_CUBE_100m) | NO | NO | - |