## List for Observation Sites & Foreign Collaborative Institutions of ISEE (As of May 2024)

| SuperDARN Executive Council  Syowa Station  Antarctica  Antarctica  Observation Site  Atmospheric Observatory of Austral Patagonia  Lasar Application and research Center  Yerevan Physics Institute  Darwin  Kakadu Observatory, Geoscience Australia  Bangladesh University of Engineering & Technology, Department of Physics  Chacaltaya Cosmic Ray Observatory, Faculty of Sciences, Universidad Mayor de San Andres, La Paz  National Institute of Space Research  Athabasca  Resolute  (UK)  Collaborative Institution  Observation Site  Argentine  Observation Site  Armenia  Institution with Academic Agreement  Collaborative Institution  Institution with Academic Agreement  Institution with Academic Agreement  Collaborative Institution Site  Canada  Observation Site  Canada  Observation Site | -<br>-69<br>-51.62<br>-33.5<br>40.5<br>-12.44<br>-12.69 | 290.8<br>301.9<br>44.17           |
|---|---|-----------------------------------|
| Atmospheric Observatory of Austral Patagonia  Lasar Application and research Center  Yerevan Physics Institute  Darwin  Kakadu Observatory, Geoscience Australia  Bangladesh University of Engineering & Technology, Department of Physics  Chacaltaya Cosmic Ray Observatory, Faculty of Sciences, Universidad Mayor de San Andres, La Paz  National Institute of Space Research  Athabasca  Resolute  Argentine  Observation Site  Institution with Academic Agreement  Bolivia  Institution with Academic Agreement  Institution with Academic Agreement  Canada  Collaborative Institution  Canada  Observation Site   | -51.62<br>-33.5<br>40.5<br>-12.44<br>-12.69             | 290.8<br>301.9<br>44.17<br>130.96 |
| Lasar Application and research Center  Yerevan Physics Institute  Darwin  Kakadu Observatory, Geoscience Australia  Bangladesh University of Engineering & Technology, Department of Physics  Chacaltaya Cosmic Ray Observatory, Faculty of Sciences, Universidad Mayor de San Andres, La Paz  National Institute of Space Research  Argentine  Australia  Collaborative Institution  Institution with Academic Agreement  Bolivia  Bolivia  Institution with Academic Agreement  Institution with Academic Agreement  Canada  Collaborative Institution  Athabasca  Canada  Observation Site  Canada  Observation Site  | -33.5<br>40.5<br>-12.44<br>-12.69<br>23.7               | 301.9<br>44.17<br>130.96          |
| Yerevan Physics Institute  Darwin  Australia  Australia  Observation Site  Kakadu Observatory, Geoscience Australia  Bangladesh University of Engineering & Technology, Department of Physics  Chacaltaya Cosmic Ray Observatory, Faculty of Sciences, Universidad Mayor de San Andres, La Paz  National Institute of Space Research  Athabasca  Australia  Australia  Collaborative Institution  Institution with Academic Agreement  Bolivia  Institution with Academic Agreement  Institution with Academic Agreement  Canada  Collaborative Institution  Athabasca  Canada  Observation Site  Canada  Observation Site  | 40.5<br>-12.44<br>-12.69<br>23.7                        | 44.17<br>130.96                   |
| Darwin  Kakadu Observatory, Geoscience Australia  Bangladesh University of Engineering & Technology, Department of Physics  Chacaltaya Cosmic Ray Observatory, Faculty of Sciences, Universidad Mayor de San Andres, La Paz  National Institute of Space Research  Athabasca University  Athabasca  Resolute  Australia  Observation Site  Australia  Collaborative Institution  Institution with Academic Agreement  Institution with Academic Agreement  Canada  Collaborative Institution  Observation Site  Canada  Observation Site  | -12.44<br>-12.69<br>23.7                                | 130.96                            |
| Kakadu Observatory, Geoscience Australia  Bangladesh University of Engineering & Technology, Department of Physics  Chacaltaya Cosmic Ray Observatory, Faculty of Sciences, Universidad Mayor de San Andres, La Paz  National Institute of Space Research  Athabasca University  Athabasca  Resolute  Australia  Collaborative Institution  Institution with Academic Agreement  Bolivia  Institution with Academic Agreement  Institution with Academic Agreement  Canada  Collaborative Institution  Observation Site   | -12.69<br>23.7  |                                   |
| Bangladesh University of Engineering & Technology, Department of Physics  Chacaltaya Cosmic Ray Observatory, Faculty of Sciences, Universidad Mayor de San Andres, La Paz  National Institute of Space Research Athabasca University  Athabasca  Resolute  Bangladesh Institution with Academic Agreement Institution with Academic Agreement Canada Collaborative Institution Observation Site  Canada Observation Site  | 23.7  | 132.47                            |
| Department of Physics  Chacaltaya Cosmic Ray Observatory, Faculty of Sciences, Universidad Mayor de San Andres, La Paz  National Institute of Space Research  Athabasca University  Canada  Collaborative Institution  Canada  Observation Site  Resolute  Rangladesn  Institution with Academic Agreement  Institution with Academic Agreement  Canada  Observation Site   |   |                                   |
| Universidad Mayor de San Andres, La Paz  National Institution With Academic Agreement  Athabasca University  Athabasca  Canada  Collaborative Institution  Canada  Observation Site  Canada  Observation Site   | 10.05   | 90.4                              |
| Athabasca University  Canada  Collaborative Institution  Athabasca  Canada  Observation Site  Resolute  Canada  Observation Site  | -16.35  | 291.9                             |
| Athabasca Canada Observation Site Resolute Canada Observation Site  | -23.2   | 314.1                             |
| Resolute Canada Observation Site  | 54.7  | 246.7                             |
|   | 54.6  | 246.36                            |
|   | 74.73   | 265.07                            |
| Eureka Canada Observation Site  | 80  |                                   |
| Kapuskasing Canada Observation Site   | 49.39   | 277.81                            |
| Nain Canada Observation Site  | 56.5  |                                   |
| Atacama highland Chile Observation Site   | -23   | 292.3                             |
| Institute of High Energy Physics, Chinese Academy of Sciences  China  Institution with Academic Agreement   | 30.11   | 90.53                             |
| Polar Research Institute of China China Institution with Academic Agreement   | 31.3  |                                   |
| Egypt-Japan University of Science and Technology Egypt Collaborative Institution  | 30.867  | 29.583                            |
| Egypt-Japan University of Science and Technology Egypt Observation Site   | 30.867  | 29.583                            |
| Nyrola Finland Observation Site   | 62.34   | -                                 |
| Sodankyla Finland Observation Site  | 67.4  | 26.6                              |
| Kevo Finland Observation Site   | 69.76   | 27.01                             |
| Department of Geophysics, Finnish Meteorological Institute Finland Institution with Academic Agreement  | 60.2  | 25                                |
| University of Oulu Finland Collaborative Institution  | 65.1  | 25.5                              |
| VLF receiver at Oulujarvi, Finland (OUJ) Finland Observation Site   | 64.51   | 27.23                             |
| Zugspitze Germany Observation site  | 47.42   |                                   |
| Husafell Iceland Observation Site   | 64.67   | 338.97                            |
| Observation Site for Methane in SonePat, India  India  Observation Site   | 29  |                                   |
| Decan College India Collaborative Institution  Kototabang Indonesia Observation Site  | 18.55<br>-0.2   | 73.9<br>100.32                    |
| Kototabang   Indonesia   Observation Site     National Research and Innovation Agency (BRIN)   Indonesia   Collaborative Institution  | -6.2  |                                   |
|   | 35.2  |                                   |
|   | 44.37   |                                   |
| Moshiri Japan Observatory  Kagoshima Japan Observatory  | 31.48   |                                   |
| Kagoshima Japan Observatory Fuji Japan Observatory  | 35.43   |                                   |
| Rikubetsu Japan Observatory   | 43.5  |                                   |
| Ishigaki Japan Observation Site   | 24.4  |                                   |
| Sata Japan Observation Site   | 31.02   |                                   |
| Shigaraki Japan Observation Site  | 34.8  | 136.1                             |
| Toyokawa Japan Observation Site   | 34.84   | 137.37                            |
| Kiso Japan Observation Site   | 35.8  |                                   |
| Chihara Campus, University of the Ryukyus Japan Observation Site  | 26.3  |                                   |
| SuperDARN Hokkaido East Japan Observation Site  | 43.5  | 143.6                             |
| SuperDARN Hokkaido West Japan Observation Site  | 43.5  | 143.6                             |
| Kamioka Observatoty, Institute for Cosmic Ray Research, University of Tokyo  Observation Site   | 36.1  | 137.55                            |
| Kunigami Japan Observation Site   | 26.76   |                                   |
| Inabu Crustal Deformation Observatory Japan Observation Site  | 35.2  | 137.53                            |
| Kawatabi Observatory, Graduate School of Science, Tohoku University  Observatory  | 38.75   | 140.76                            |
| The Shirakami Natural Science Park, Hirosaki University Japan Observatory   | 40.52   | 140.22                            |
| Korean Institute of Ocean Science and Technology, Korea Ocean Satellite Center  Korea  Institution with Academic Agreement  | 37.3  | 126.8                             |
| Pukyong National University, College of Fisheries Science Korea Institution with Academic Agreement   | 35.1  | 129.1                             |

| Mexicon Array Ratio Telescope, Universidad Nacional Autonoma de Mexico   Deservation Site   11.38   76.67  | Name  | Country     | Category                                 | Latitude | Longitude |
|--|---|-------------|--|----------|-----------|
| Autonomic ade Mexico Top of the Sierra Regra volcano, National Institute of Aircraphysics, optics, and electrinics Institute of Geographysics, optics, and electrinics Institute of Geographysics, optics, and electrinics Institution with Academic Agreement Institution with Academic A |   |             |  |          |           |
| Astrochypicies, optice, and electonics   18-96   20-25.  |   | Mexico      | Observation Site                         | 11.38    | /6.6/     |
| Astrochysics, osted, and electonics   Astrochysics, osted, and electonics   Astrochysics   Astronamous   Astrochysics   Astronamous   Astron   | Top of the Sierra Negra volcano, National Institute of  | Maxiaa      | Observation Site                         | 10 00    | 262.7     |
| Sciences   |   | MEXICO      | Observation Site                         | 10.30    | 202.7     |
| Kathmandu University (KIU)   Nepal   Collaborative Institution   27.65   85.54   |   | Mongol      | Institution with Academic Agreement      | 47.63    | 108.33    |
| International Centre for Integrated Mountain Development (CIMODO)   Nepal Academy of Science and Technology (NAST)   Nepal   Collaborative Institution   27.66   85.32   Nepal   Collaborative Institution with Academic Agreement   4.95   17.26   Nepal   |   | Namal       | Callabayatiya Inatityatian               | 27.62    | 05.54     |
|  |   | ічераі      | Collaborative Institution                | 27.02    | 65.54     |
| Nappal Academy of Science and Technology (NAST)   Nappal   Observation Site   27,9   68,38   |   | Nepal       | Collaborative Institution                | 27.65    | 85.32     |
| The Flowwing valley in the Himalaysa (six placea)   Nepal   Observation Site   435   1726  |   | Nepal       | Collaborative Institution                | 27.66    | 85.32     |
| Neuropath   Neuropath   New Zealand   Institution with Academic Agreement   -435   172.6   Faculty of Science, University of Carterbury   New Zealand   Ne   |   |             |  | +        |           |
| Faculty of Sciences University of Cantachury   New Zasland   Institution with Academic Agreement   -43.5   172.6   Centre for Geophysical Research university of Auckland   New Zasland   Institution with Academic Agreement   -36.9   174.8   National Space Research and Development Agency   Nigeria   Observation Site   8.99   7.38   Abusa   National Space Research and Development Agency   Nigeria   Observation Site   8.99   7.38   Abusa   Norway   Observation Site   8.99   7.38   Alta   Norway   Observation Site   8.99   7.38   Alta   Norway   Observation Site   8.99   7.38   Alta   Norway   Norway   Observation Site   8.95   19.227   University Centre in Svalbard (UNIS)   Norway   Institution with Academic Agreement   6.97   11.9   University Centre in Svalbard (UNIS)   Norway   Observation site   8.93   20.38   Skibboth   Norway   Observation site   8.93   20.38   Norway   Observation site   7.93   11.9   Muntinkipa   Pulsiphine Radio Astronomy Observatory, Lebedev Physical Institute Radio Astronomy Observatory, Lebedev Physical Institute of Solar-Terrestrial Physics (ISTP), Siberian   Russia   Observation Site   6.61   14.373   12.1017   Russia   Observation Site   6.63   12.33   Russia   Observation Site   6.63   12.33   Russia   Observation Site   6.64   12.34   Russia   Observation Site   6.67   15.24   Russia   Observation Site      |   |             | Institution with Academic Agreement      |          |           |
| Centre for Geophysical Research University of Auckland New Zealand Institution with Academic Agreement   -36,8   17.4.6   National Space Research and Development Agency   Nigeria   Observation Site   8.99   7.3.8   Abia   Norway   Observation Site   8.99   7.3.8   Alta   Norway   Observation Site   8.95   19.227   UIT The Arctic University of Norway   Norway   Observation Site   8.95   19.227   UIT The Arctic University Of Norway   Norway   Observation Site   8.95   19.227   UIT The Arctic University Of Norway   Norway   Observation Site   8.93   7.3.8   Skibotin   Norway   Observation Site   8.93   7.3.8   Norway   Observation Site   8.93   7.3.8   Norway   Observation Site   8.93   7.3.8   Norway   Observation Site   7.8.9   11.9   Pulsabinion Radio Astronomy Observatory, Lebedev Physical Institute of Solar-Terrestrial Physics (ISTP) Siberian   Russia   Observation Site   7.00,3   88.01   Paratunka   Russia   Observation Site   7.00,3   88.01   Russia   Observation Site   66.78   123.37   Nagadan   Russia   Observation Site   66.78   123.37   Nagadan   Russia   Observation Site   52.97   158.248   Russia   Observation Site   66.78   123.37   Nagadan   Russia   Observation Site   7.00,3   Russia    | •   |             |  |          |           |
| National Space Research and Development Agency   Nigeria   Observation Site   8.99   7.38  |   |             |  |          |           |
| Abuja   Nigeria   Observation Site   8.9   7.38  |   |             | _  | +        |           |
| Norway   Observation Site   69.9   32.3  |   | _           |  |          |           |
| Tromsoe  |   |             |  |          |           |
| University Centre in Svalbard (UNIS) Norway Ollaborative institution with Academic Agreement 78.2 15.53 Skibcht Norway Observation site 98.35 20.36 Ny-Alessund Norway Observation site 16.37 20.36 Ny-Bashinn Radio Astronomy Observatory, Lebedev Physical Institute I |   | -           |  |          |           |
| University Centre in Svalbard (UNIS)  Norway  Norway  Observation site  Rossia  Observation site  Observation site  Observation site  Observation site  Observation site  14.373  121.017  Pushchino Radio Astronomy Observatory, Lebedev Physical Institute Institution Institute Institution Institute Institution Institute Institution Institute Institution Institute Institution Ins |   | -           |  |          |           |
| Skibotn Norway Observation site 69.35 20.36 Ny-Alesund Norway Observation site 77.89 11.9 Murtaniupa Philippines Observation site 17.89 11.9 Pushchino Radio Astronomy Observatory, Lebedev Physical Institute Stok Russia Observation Site 54.82 37.63 18tok Russia Observation Site 54.82 37.63 18tok Russia Observation Site 70.03 88.01 18tok Russia Observation Site 66.78 123.37 18tok Russia Observation Site 66.78 125.29 18tok Russia Observation Site 66.78 125.29 18tok Russia Observation Site 66.78 125.2 104.3 18tok Russia Observation Site 66.78 125.2 104.3 18tok Russia Observation Site 66.78 125.2 104.3 18tok Russia Observation Site 70.8 18tok Russia Observation Mith Academic Agreement 66.2 129.7 18tok Russia Observation Russia Academy of Institution with Academic Agreement 67.7 13.34 18tok Russia Observation Site 70.8 18tok Russi |   | -           |  |          |           |
| Norway Observation site 78.9 11.9 Philippines Observation site 14.373 121.017 Pushchinn Radio Astronomy Observatory, Lebedev Physical Russia Observation Site 14.373 121.017 Statute 15tok Russia Observation Site 54.82 37.68 Institute 15tok Russia Observation Site 70.03 88.01 Statute 15tok Russia Observation Site 70.03 88.01 Pushankin Russia Observation Site 70.03 88.01 Pushankin Russia Observation Site 70.03 88.01 Russia Observation Site 70.03 88.01 Russia Observation Site 70.03 88.01 Pushankin Russia Observation Site 70.03 88.01 Russia Institution with Academic Agreement 70.03 88.01 Russia R |   |             |  |          |           |
| Muntinlupa Pushchine Radio Astronomy Observatory, Lebedev Physical Institute Institute Institute Stok Russia Observation Site |   | -           |  |          |           |
| Pushchino Radio Astronomy Observatory, Lebedev Physical Institute   Institut   |   |             |  |          |           |
| Institute   Russia   Observation Site   3-8.2   3-7.03   3-8.01   3-7.03    | ·   | Philippines | Observation Site                         | 14.3/3   | 121.01/   |
| Stok   Russia   Observation Site   70.03   88.01   |   | Russia      | Observation Site                         | 54.82    | 37.63     |
| Russia   Observation Site   66.78   123.37   |   | Russia      | Observation Site                         | 70.03    | 88.01     |
| Russia   Observation Site   60.05   150.73   |   |             |  |          |           |
| Paratunka   Russia   Observation Site   52.97   158.248   Institute of Solar-Terrestrial Physics (ISTP), Siberian   Russia   Institution with Academic Agreement   52.2   104.3   Yu.G. Shafer Institute of Cosmophysical Research and Aeronomy (IKFA), Siberian Branch, Russian Academy of Sciences   Russia   Institution with Academic Agreement   62   129.7   Sciences   Institute of Cosmophysical Research and Radio Wave Propagation (IKIR), Far Eastern Branch, Russian Academy of Institute for Biological Problems of Cryolithozone, Siberian Branch of Russian Academy of Sciences   Russia   Institution with Academic Agreement   43.1   131.9   Institute for Biological Problems of Cryolithozone, Siberian Branch of Russian Academy of Sciences   Russia   Collaborative Institution with Agreement   62.25   129.2   Polar Geophysical Institute (PGI)   Russia   Institution with Academic Agreement   67.57   33.4   Swedish Institute of Space Physics   Sweden   Institution with Academic Agreement   67.8   20.4   EISCAT Scientific Association   Sweden   Collaborative Institution   67.8   20.4   European Organization for Nuclear Research   Switzerland   Collaborative Institution   46.2   6   Center for Weather Climate and Disaster Research, National Taiwan University Atmospheric Sciencees   Taiwan Institution with Academic Agreement   25.1   121.5   National Taiwan University Atmospheric Sciencees   Taiwan Institution with Academic Agreement   25.1   121.5   National Taiwan University of Alaska Fairbanks   USA   Institution with Academic Agreement   39.937   Caphysical Institute, University of Alaska Fairbanks   USA   Institution with Academic Agreement   39.288   242.77   Center for Space Science and Engineering Research   USA   Institution with Academic Agreement   39.288   242.77   Center for Space Science and Engineering Research   USA   Institution with Academic Agreement   39.283   242.78   Center for Space Science and Engineering Research   USA   Institution with Academic Agreement   39.283   242.77   249.6   Center for Space Sci |   |             |  |          |           |
| Institute of Solar-Terrestrial Physics (ISTP), Siberian Branch, Russian Academy of Sciences Parach, Russian Academy of Sciences VLG. Shafer Institute of Cosmophysical Research and Aeronomy (IKFIA), Siberian Branch, Russian Academy of Sciences Institute of Cosmophysical Research and Radio Wave Propagation (IKR), Far Eastern Branch, Russian Academy of Institute of Cosmophysical Research and Radio Wave Propagation (IKR), Far Eastern Branch, Russian Academy of Institute for Eloogical Problems of Gryolihozone, Siberian Branch of Russian Academy of Sciences Polar Geophysical Institute (PGI) Russia Swedish Institute of Space Physics Sweden Institution with Academic Agreement For Space Sciences Russia Institution with Academic Agreement For Space Sciences Collaborative Institution with Academic Agreement For Space Sciences Collaborative Institution For Space Sciences Coll |   |             |  |          |           |
| Branch, Russian Academy of Sciences Yu.G. Shafer Institute of Cosmophysical Research and Aeronomy (IKFIA), Siberian Branch, Russian Academy of Sciences Institute of Cosmophysical Research and Radio Wave Propagation (IKIR), Far Eastern Branch, Russian Academy of Institute of Cosmophysical Research and Radio Wave Propagation (IKIR), Far Eastern Branch, Russian Academy of Institute of Biological Problems of Cryolithozone, Siberian Branch of Russian Academy of Sciences Polar Geophysical Institute (PGI) Russia Institution with Academic Agreement G2.5 129.2 Russia Collaborative Institution with Agreement G7.57 33.4 EISCAT Scientific Association Sweden Institution with Academic Agreement G7.8 20.4 EUROPAN Organization for Nuclear Research Switzerland Collaborative Institution G7.8 20.4 European Organization for Nuclear Research Switzerland Collaborative Institution G7.8 20.4 European Organization for Nuclear Research, National Taiwan University Atmospheric Sciencees Taiwan University National Taiwan University Atmospheric Sciencees Taiwan Institution with Academic Agreement Tailand Collaborative Institution Tailand Co |   | Russia      | Observation Site                         | 52.97    | 158.248   |
| Yu.G. Shafer Institute of Cosmophysical Research and Aeronomy (IKFIA), Siberian Branch, Russian Academy of Sciences Institute of Osmophysical Research and Radio Wave Propagation (IKIR), Far Eastern Branch, Russian Academy of Institute of Osmophysical Problems of Cryolithozone, Siberian Branch of Russian Academy of Institute for Biological Problems of Cryolithozone, Siberian Branch of Russian Academy of Sciences Polar Geophysical Institute (PGI) Russia Institution with Academic Agreement 62.25 129.2 Polar Geophysical Institute (PGI) Russia Institution with Academic Agreement 67.57 33.4 Swedish Institute of Space Physics Sweden Institution with Academic Agreement 67.8 20.4 EISCAT Scientific Association Sweden Collaborative Institution 67.8 20.4 EISCAT Scientific Association Sweden Collaborative Institution 67.8 20.4 EISCAT Scientific Association Taiwan University Taiwan University Institution 75.8 20.4 EISCAT Scientific Association For Nuclear Research, National Taiwan University Atmospheric Sciencees Taiwan Institution with Academic Agreement 25 121.5 Chiang Mai University Atmospheric Sciencees Taiwan Institution with Academic Agreement 25.1 121.5 Chiang Mai Thailand Observation Site 18.79 98.92 Chumphon Thailand Observation Site 18.79 98.92 Chumphon Thailand Observation Site 10.73 99.32 Chumphon Thailand Observation Site 10.73 99.32 Chumphon USA Observation Site 62.39 214.78 Geophysical Institute, University of Alaska Fairbanks USA Institution with Academic Agreement 32.88 242.77 Center for Astrophysics and Space Sciences, University of California at San Diego Center for Space Science and Engineering Research USA Institution with Academic Agreement 32.88 242.77 Space Environment Center, National Oceanic and Atmospheric Administration USA Institution with Academic Agreement 39 283 Atmospheric Administration USA Institution with Academic Agreement 39 283 Prokhaven National Laboratory USA Collaborative Institution 32.2 274 80 Prokhaven National Laboratory USA Collaborative Institution 32.2 274 80 Prokhaven Nationa |   | Russia      | Institution with Academic Agreement      | 52.2     | 104.3     |
| Institute of Cosmophysical Research and Radio Wave<br>Propagation (IKIR), Far Eastern Branch, Russian Academy of<br>Branch of Russian Academy of Sciences         Russia         Institution with Academic Agreement         43.1         131.9           Branch of Russian Academy of Sciences         Russia         Collaborative Institution with Agreement         62.25         129.2           Polar Geophysical Institute (PGI)         Russia         Institution with Academic Agreement         67.57         33.4           Swedish Institute of Space Physics         Sweden         Institution with Academic Agreement         67.8         20.4           EISCAT Scientific Association         Sweden         Collaborative Institution         67.8         20.4           European Organization for Nuclear Research         Switzerland         Collaborative Institution         46.2         6           Center for Weather Climate and Disaster Research, National<br>Taiwan University         Taiwan Institution with Academic Agreement         25         121.5           National Taiwan University Atmospheric Sciencees         Taiwan         Institution with Academic Agreement         25.1         121.5           Chiang Mai         Thialand         Observation Site         18.79         98.92           Chumphon         Thailand         Observation Site         62.39         214.78           Geophysical Institute, University   | Yu.G. Shafer Institute of Cosmophysical Research and<br>Aeronomy (IKFIA), Siberian Branch, Russian Academy of | Russia      | Institution with Academic Agreement      | 62       | 129.7     |
| Institute for Biological Problems of Cryolithozone, Siberian Branch of Russian Academy of SciencesRussiaCollaborative Institution with Agreement62.25129.2Polar Geophysical Institute (PGI)RussiaInstitution with Academic Agreement67.5733.4Swedish Institute of Space PhysicsSwedenInstitution with Academic Agreement67.820.4EISCAT Scientific AssociationSwedenCollaborative Institution67.820.4European Organization for Nuclear ResearchSwitzerlandCollaborative Institution46.26Center for Weather Climate and Disaster Research, National Taiwan UniversityTaiwanInstitution with Academic Agreement25121.5National Taiwan University Atmospheric ScienceesTaiwanInstitution with Academic Agreement25.1121.5Chiang MaiThailandCollaborative Institution18.7998.92Chiang MaiThailandObservation Site10.7399.37GakonaUSAObservation Site10.7399.37GakonaUSAObservation Site62.39214.78Geophysical Institute, University of Alaska FairbanksUSAInstitution with Academic Agreement64.9213Center for Astrophysics and Space Sciences, University of California at San DiegoUSAInstitution with Academic Agreement32.28242.77Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and StateUSAInstitution with Academic Agreement39283National Geophysical Data Center, Nation   | Institute of Cosmophysical Research and Radio Wave  | Russia      | Institution with Academic Agreement      | 43.1     | 131.9     |
| Branch of Russian Academy of Sciences Polar Geophysical Institute (PGI) Russia Institution with Academic Agreement 67.57 33.4 Swedish Institute of Space Physics EISCAT Scientific Association Sweden Collaborative Institution 67.8 20.4 EUROPEAN Organization for Nuclear Research Switzerland Collaborative Institution 46.2 66 Center for Weather Climate and Disaster Research, National Taiwan Institution with Academic Agreement 25 121.5 National Taiwan University National Taiwan University Atmospheric Sciencees Taiwan Institution with Academic Agreement 25.1 121.5 Chiang Mai University Thailand Collaborative Institution 18.79 98.92 Chiang Mai Thailand Observation Site 18.79 Suspect Chumphon Thailand Observation Site 10.73 Geophysical Institute, University of Alaska Fairbanks USA Institution with Academic Agreement 64.9 213 Center for Astrophysics and Space Sciences, University of California at San Diego California at San Diego Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA Institution with Academic Agreement 37.2 279.6 USA Institution with Academic Agreement 39 283 Atmospheric Administration National Geophysical Data Center, National Oceanic and Atmospheric Administration USA Institution with Academic Agreement 39 283 Atmospheric Administration USA Institution with Academic Agreement 39 283 Institution with Academic Agreement 39 284 Institution with Academic Agreement 39 285 Institution with Academic Agreement 39 286 Institution with Academic Agreement 39 287 Institution with Academic Agreement  |   | Duosio      | Callabarative Institution with Agreement | 62.25    | 120.2     |
| Swedish Institute of Space Physics  EISCAT Scientific Association  Sweden  Collaborative Institution  67.8  20.4  EUropean Organization for Nuclear Research  Center for Weather Climate and Disaster Research, National Taiwan University  National Taiwan University Atmospheric Sciencees  Taiwan  Institution with Academic Agreement  Taiwan University  Atmospheric Administration  Center for Weather Climate and Disaster Research, National Taiwan University  National Taiwan University  Taiwan  Institution with Academic Agreement  25  121.5  Chiang Mai University Atmospheric Sciencees  Taiwan  Institution with Academic Agreement  25.1  121.5  Chiang Mai University  Thailand  Collaborative Institution  18.79  98.92  Chiang Mai  Thailand  Observation Site  10.73  98.92  Chumphon  Thailand  Observation Site  10.73  Geophysical Institute, University of Alaska Fairbanks  USA  Observation Site  62.39  214.78  Geophysical Institute, University of Alaska Fairbanks  USA  Institution with Academic Agreement  32.88  242.77  Center for Astrophysics and Space Sciences, University of California at San Diego  Center for Space Science and Engineering Research  (Space@VT), Virginia Polytechnic Institute and State  USA  Institution with Academic Agreement  37.2  279.6  USA  Institution with Academic Agreement  39  283  Atmospheric Administration  Haystack Observatory, Massachusetts Institute of Technology  Haystack Observatory, Massachusetts Institute of Technology  Brookhaven National Laboratory  USA  Collaborative Institution  40.9  287.1  The University of Arizona  USA  Collaborative Institution  40.9  287.1   |   | Tussia      |  |          |           |
| EISCAT Scientific Association Sweden Collaborative Institution 67.8 20.4  European Organization for Nuclear Research Switzerland Collaborative Institution 46.2 6  Center for Weather Climate and Disaster Research, National Taiwan University National Taiwan University National Taiwan University Atmospheric Sciencees Taiwan Institution with Academic Agreement 25.1 121.5  Chiang Mai University Thailand Collaborative Institution 18.79 98.92  Chiang Mai University Thailand Observation Site 18.79 98.92  Chiang Mai University of Alaska Fairbanks USA Institution with Academic Agreement 10.73 99.37  Gakona USA Observation Site 10.73 99.37  Geophysical Institute, University of Alaska Fairbanks USA Institution with Academic Agreement 64.9 213  Center for Astrophysics and Space Sciences, University of California at San Diego Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA Institution with Academic Agreement 37.2 279.6  USA Institution with Academic Agreement 39 283  Atmospheric Administration USA Institution with Academic Agreement 39 283  National Geophysical Data Center, National Oceanic and Atmospheric Administration USA Institution with Academic Agreement 39 283  Institution with Acade | Polar Geophysical Institute (PGI)   | Russia      | Institution with Academic Agreement      | 67.57    | 33.4      |
| European Organization for Nuclear Research Center for Weather Climate and Disaster Research, National Taiwan University National Taiwan University Atmospheric Sciencees Taiwan Institution with Academic Agreement Taiwan University Thailand Collaborative Institution Institution with Academic Agreement Taiwan University Thailand Collaborative Institution Institution Institution with Academic Agreement Taiwan Taiwan Institution with Academic Agreement Taiwan Taiwan Taiwan Institution I | Swedish Institute of Space Physics  | Sweden      | Institution with Academic Agreement      | 67.8     | 20.4      |
| Center for Weather Climate and Disaster Research, National Taiwan University National Taiwan University Atmospheric Sciencees Taiwan Institution with Academic Agreement Taiwan University Thailand Collaborative Institution Thailand Observation Site 18.79 98.92 Chumphon Thailand Observation Site 10.73 99.37 Gakona USA Observation Site 10.73 Geophysical Institute, University of Alaska Fairbanks USA Institution with Academic Agreement USA Institution with Academic Agreement 32.88 242.77  Center for Astrophysics and Space Sciences, University of California at San Diego Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA Institution with Academic Agreement 37.2 279.6 USA Institution with Academic Agreement 39 283 Atmospheric Administration USA Institution with Academic Agreement 39 283 Atmospheric Administration USA Institution with Academic Agreement 39 283 Institution with Academic Agreement 39 283 Institution with Academic Agreement 39 283 Atmospheric Administration USA Institution with Academic Agreement 39 283 Institution with Academic Agreement 42.4 289 Institution wit | EISCAT Scientific Association   | Sweden      | Collaborative Institution                | 67.8     | 20.4      |
| Taiwan University National Taiwan University Atmospheric Sciencees Taiwan Institution with Academic Agreement Science Agreement Science Agreement Science Agreement Taivan Institution with Academic Agreement Science Agreement Taivan Institution with Academic Agreement Institution Instit |   | Switzerland | Collaborative Institution                | 46.2     | 6         |
| National Taiwan University National Taiwan University Atmospheric Sciencees Taiwan Institution with Academic Agreement 25.1 121.5 Chiang Mai University Thailand Collaborative Institution 18.79 98.92 Chiang Mai University Thailand Observation Site 10.73 99.37 Gakona USA Observation Site 10.73 99.37 Geophysical Institute, University of Alaska Fairbanks USA Institution with Academic Agreement 64.9 213 Center for Astrophysics and Space Sciences, University of California at San Diego USA Institution with Academic Agreement 32.88 242.77 Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA Institution with Academic Agreement 37.2 279.6 USA Institution with Academic Agreement 37.2 279.6 USA Institution with Academic Agreement 39 283 Atmospheric Administration National Geophysical Data Center, National Oceanic and Atmospheric Administration USA Institution with Academic Agreement 39 283 Institution with Academic Agreement 42.4 289 Brookhaven National Laboratory USA Collaborative Institution 40.9 287.1 The University of Arizona USA Collaborative Institution 32.2 249   |   | Taiwan      | Institution with Academic Agreement      | 25       | 121.5     |
| Chiang Mai University  Chiang Mai  Collaborative Institution  18.79  98.92  Chiang Mai  Thailand  Observation Site  18.79  98.92  Chumphon  Thailand  Observation Site  10.73  99.37  Gakona  USA  Observation Site  10.73  99.37  Gakona  USA  Observation Site  62.39  214.78  Geophysical Institute, University of Alaska Fairbanks  USA  Institution with Academic Agreement  64.9  213  Center for Astrophysics and Space Sciences, University of California at San Diego  USA  Institution with Academic Agreement  32.88  242.77  Center for Space Science and Engineering Research  (Space@VT), Virginia Polytechnic Institute and State  USA  Institution with Academic Agreement  37.2  279.6  USA  Institution with Academic Agreement  39  283  Atmospheric Administration  National Geophysical Data Center, National Oceanic and Atmospheric Administration  Haystack Observatory, Massachusetts Institute of Technology  Brookhaven National Laboratory  USA  Collaborative Institution  40.9  287.1  The University of Arizona  USA  Collaborative Institution  39.22  249   |   |             |  |          |           |
| Chiang Mai Thailand Observation Site 18.79 98.92 Chumphon Thailand Observation Site 10.73 99.37 Gakona USA Observation Site 62.39 214.78 Geophysical Institute, University of Alaska Fairbanks USA Institution with Academic Agreement 64.9 213 Center for Astrophysics and Space Sciences, University of California at San Diego Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA Institution with Academic Agreement 37.2 279.6 University Space Environment Center, National Oceanic and Atmospheric Administration National Geophysical Data Center, National Oceanic and Atmospheric Administration National Geophysical Data Center, National Oceanic and Atmospheric Administration USA Institution with Academic Agreement 39 283 Haystack Observatory, Massachusetts Institute of Technology Brookhaven National Laboratory USA Collaborative Institution 40.9 287.1 The University of Arizona USA Collaborative Institution 32.2 249   |   |             |  | +        |           |
| ChumphonThailandObservation Site10.7399.37GakonaUSAObservation Site62.39214.78Geophysical Institute, University of Alaska FairbanksUSAInstitution with Academic Agreement64.9213Center for Astrophysics and Space Sciences, University of California at San DiegoUSAInstitution with Academic Agreement32.88242.77Center for Space Science and Engineering Research<br>(Space@VT), Virginia Polytechnic Institute and State<br>UniversityUSAInstitution with Academic Agreement37.2279.6Usace Environment Center, National Oceanic and<br>Atmospheric AdministrationUSAInstitution with Academic Agreement39283National Geophysical Data Center, National Oceanic and<br>Atmospheric AdministrationUSAInstitution with Academic Agreement39283Haystack Observatory, Massachusetts Institute of<br>TechnologyUSAInstitution with Academic Agreement42.4289Brookhaven National LaboratoryUSACollaborative Institution40.9287.1The University of ArizonaUSACollaborative Institution32.2249   |   |             |  |          |           |
| Gakona USA Observation Site 62.39 214.78 Geophysical Institute, University of Alaska Fairbanks USA Institution with Academic Agreement 64.9 213 Center for Astrophysics and Space Sciences, University of California at San Diego USA Institution with Academic Agreement 32.88 242.77 Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA Institution with Academic Agreement 37.2 279.6 University Space Environment Center, National Oceanic and Atmospheric Administration National Geophysical Data Center, National Oceanic and Atmospheric Administration USA Institution with Academic Agreement 39 283 Atmospheric Administration USA Institution with Academic Agreement 39 283 Atmospheric Administration USA Institution with Academic Agreement 42.4 289 Brookhaven National Laboratory USA Collaborative Institution 40.9 287.1 The University of Arizona USA Collaborative Institution 32.2 249  |   |             |  |          |           |
| Geophysical Institute, University of Alaska Fairbanks  Center for Astrophysics and Space Sciences, University of California at San Diego  Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State UNA  Institution with Academic Agreement  32.88  242.77  LISA  Institution with Academic Agreement  32.88  242.77  LISA  Institution with Academic Agreement  37.2  279.6  UNA  Institution with Academic Agreement  37.2  279.6  UNA  Institution with Academic Agreement  39  283  Atmospheric Administration  National Geophysical Data Center, National Oceanic and Atmospheric Administration  Haystack Observatory, Massachusetts Institute of Technology  Brookhaven National Laboratory  UNA  UNA  UNA  Institution with Academic Agreement  39  283  Institution with Academic Agreement  42.4  289  Brookhaven National Laboratory  UNA  Collaborative Institution  40.9  287.1  The University of Arizona  | · ·   |             |  |          |           |
| Center for Astrophysics and Space Sciences, University of California at San Diego  Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA  Institution with Academic Agreement  32.88  242.77  Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA  Institution with Academic Agreement  37.2  279.6  USA  Institution with Academic Agreement  39  283  National Geophysical Data Center, National Oceanic and Atmospheric Administration  Haystack Observatory, Massachusetts Institute of Technology  Brookhaven National Laboratory  USA  Collaborative Institution  40.9  287.1  The University of Arizona   |   |             |  |          |           |
| California at San Diego  Center for Space Science and Engineering Research (Space@VT), Virginia Polytechnic Institute and State USA  Institution with Academic Agreement  37.2  279.6  USA  Institution with Academic Agreement  37.2  279.6  USA  Institution with Academic Agreement  37.2  279.6  USA  Institution with Academic Agreement  39  283  National Geophysical Data Center, National Oceanic and Atmospheric Administration  National Geophysical Data Center, National Oceanic and Atmospheric Administration  Haystack Observatory, Massachusetts Institute of Technology  Brookhaven National Laboratory  USA  USA  Institution with Academic Agreement  39  283  Institution with Academic Agreement  42.4  289  Collaborative Institution  40.9  287.1  The University of Arizona  USA  Collaborative Institution  32.2  249  |   |             |  |          |           |
| (Space@VT), Virginia Polytechnic Institute and State USA Institution with Academic Agreement 37.2 279.6 University Space Environment Center, National Oceanic and Atmospheric Administration National Geophysical Data Center, National Oceanic and Atmospheric Administration USA Institution with Academic Agreement 39 283 Institution with Academic Agreement 42.4 289 Brookhaven National Laboratory USA Collaborative Institution 40.9 287.1 The University of Arizona USA Collaborative Institution 37.2 279.6 Collaborative Institution 37.2 279.6 Collaborative Institution 37.2 279.6 Collaborative Institution 39 283 Collaborative Institution 39 283 Collaborative Institution 30 287 Collaborative Institution 30 287 Collaborative Institution 30 288 Collaborative Institution 30 30 30 30 30 30 30 30 30 30 30 30 30   | California at San Diego   | USA         | Institution with Academic Agreement      | 32.88    | 242.77    |
| Atmospheric Administration  National Geophysical Data Center, National Oceanic and Atmospheric Administration  Haystack Observatory, Massachusetts Institute of Technology  Brookhaven National Laboratory  USA  Institution with Academic Agreement  USA  Institution with Academic Agreement  USA  Institution with Academic Agreement  42.4  289  Collaborative Institution  40.9  287.1  The University of Arizona  USA  Collaborative Institution  32.2  249  | (Space@VT), Virginia Polytechnic Institute and State  | USA         | Institution with Academic Agreement      | 37.2     | 279.6     |
| National Geophysical Data Center, National Oceanic and Atmospheric Administration  Haystack Observatory, Massachusetts Institute of Technology  Brookhaven National Laboratory  USA  USA  Institution with Academic Agreement  USA  Institution with Academic Agreement  42.4  289  Collaborative Institution  40.9  287.1  The University of Arizona  USA  Collaborative Institution  32.2  249   |   | USA         | Institution with Academic Agreement      | 39       | 283       |
| Haystack Observatory, Massachusetts Institute of Technology  Brookhaven National Laboratory  USA  USA  Institution with Academic Agreement  42.4  289  Collaborative Institution  40.9  287.1  The University of Arizona  USA  Collaborative Institution  32.2  249  | National Geophysical Data Center, National Oceanic and  | USA         | Institution with Academic Agreement      | 39       | 283       |
| Brookhaven National Laboratory USA Collaborative Institution 40.9 287.1 The University of Arizona USA Collaborative Institution 32.2 249   | Haystack Observatory, Massachusetts Institute of  | USA         |  | 42 4     | 289       |
| The University of Arizona USA Collaborative Institution 32.2 249   |   |             |  |          |           |
|  |   |             |  |          |           |
|  | University of Alaska, Fairbanks, Poker Flat Research Range  | USA         | Observation Site                         | 65.1     |           |