



# NETWORK REPORT

June 2007

Rhett Butler  
GSN Program Manager

Kent Anderson  
GSN Operations Manager

## Summary of GSN Activities 2006-2007

The IRIS Global Seismographic Network has 145 stations with two new installations, six new Affiliates, one station closure, and one station relocation since the last Network report for the FDSN meeting in Chile in 2005. The GSN is comprised of 78 IRIS/USGS, 40 IRIS/IDA, and 11 IRIS/University Network stations, plus 16 GSN affiliate stations and arrays. New sites were installed on Madagascar (ABPO by IRIS/IDA) in the Indian Ocean and on Tarawa in the Republic of Kiribati in the Pacific (TARA by IRIS/USGS). Six new Affiliate stations were added by the USGS since the last report with five in the Caribbean region (Honduras, Panama, Grenada, Dominican Republic, and Barbados) and one in Kabul, Afghanistan. The Hawaii-2 Observatory (H2O) is now closed. PAS Pasadena was relocated to a new, nearby site PASC. In addition to seismometers, microbarographs are installed at 43 sites, and GPS instrumentation is co-located nearby at 43 sites. Internet or VSAT satellite connectivity has been established to over 97% of the GSN; all dial-up communications links have now been upgraded to real-time links, and 6 sites have no communication link and depend solely upon mailing physical media to a data collection center. All GSN data are all available at the IRIS Data Management System (DMS) under the “\_GSN” virtual network code. All real-time GSN data are openly available without delay or restriction from the DMS or from a GSN data collection center (USGS and IRIS/IDA).

## **Network & Station Operators**

ASL	USGS Albuquerque Seismological Laboratory
IDA	University of California, San Diego SIO/IGPP IDA Project

## **Installations**

The map shows the current GSN station (red stars), planned sites (red-white stars) for completion in the coming years, and the affiliate arrays (orange stars). FDSN Backbone Network stations are also shown (purple). Many GSN stations are cooperative with other networks, indicated by the symbol on the ‘shoulder’ of the star. Network operators are continuing to make progress toward the completion of four more GSN stations: USGS pursuing KANT Republic of Kiribati, SLBS Mexico, and MACI Canary Islands; and IDA working on WAHI United Arab Emirates. A proposed site on the West Antarctic Ice Sheet is being investigated.

## **Telecommunications**

The current status of GSN telemetry is shown in two maps. New GSN telemetry links this year are highlighted in the first map. The GSN uses a wide variety of telemetry systems coordinated with many organizations and hosts, illustrated in the second GSN telemetry map. Cooperation with the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) in sharing their Global Communication Infrastructure system is an important component of telemetry. GSN currently contributes 29 stations to the International Monitoring System (IMS) of CTBTO. Many GSN stations in the Pacific Ocean are telemetered directly to the Pacific Tsunami Warning Center. Over 1 TByte/yr of GSN data are used by Tsunami Warning Centers internationally.

Twenty-three new telemetry links have been implemented in 2006-2007, including 13 new VSATs installed in Uganda, Gabon, Peru, Western Samoa, Tuvalu, Papua New Guinea, Honduras, Panama, Grenada, Dominican Republic, Barbados, and Republic of Kiribati (2). CTBTO VSATs are now being used as the primary or backup links for GSN telemetry at 22 locations. MSEY Seychelles uses a GSN VSAT in conjunction with the CTBTO provided telemetry. IRIS and Honeywell/USGS continue working with CTBTO to connect GSN sites to the IMS. RCBR and PTGA Brazil, KOWA Mali, PALK Sri Lanka, and MSVF Fiji are planned through 2008.

## Instrumentation

*Next Generation DAS.* The Global Seismographic Network announced in May 2006 that the Quanterra Q330HR has been selected for use by the GSN as its next generation data acquisition system. System integration is underway with our Network Operations at USGS Albuquerque Seismological Laboratory and UCSD IRIS/IDA group. In 2007 GSN will begin to deploy these new standardized units in the field, replacing prior generation equipment over the coming years.

*STS-1 Electronics.* GSN funded a joint instrumentation project to Metrozet and UC Berkeley for development and test of new electronic hardware, and methods for mechanical repair of the Streckeisen STS-1 Very Broad-Band (VBB) seismometer. As part of this effort, Metrozet has developed a replacement electronics module for the STS-1 VBB. The unit is being tested by GSN and looks very promising.

*Antarctic Remote Autonomous Station Design.* GSN has received NSF Office of Polar Programs funding (in collaboration with IRIS PASSCAL and UNAVCO) to develop the basic power and communications infrastructure needed to run remote observatories in the polar environments. This is a design effort linked with PASSCAL and UNAVCO needs to run smaller, continuous, real-time seismic and geodetic experiments with improved station performance throughout the austral winter. Preliminary design testbeds have been deployed this past Antarctic field season and are currently operating at McMurdo Station and Amundsen-Scott South Pole Station and both are working well.

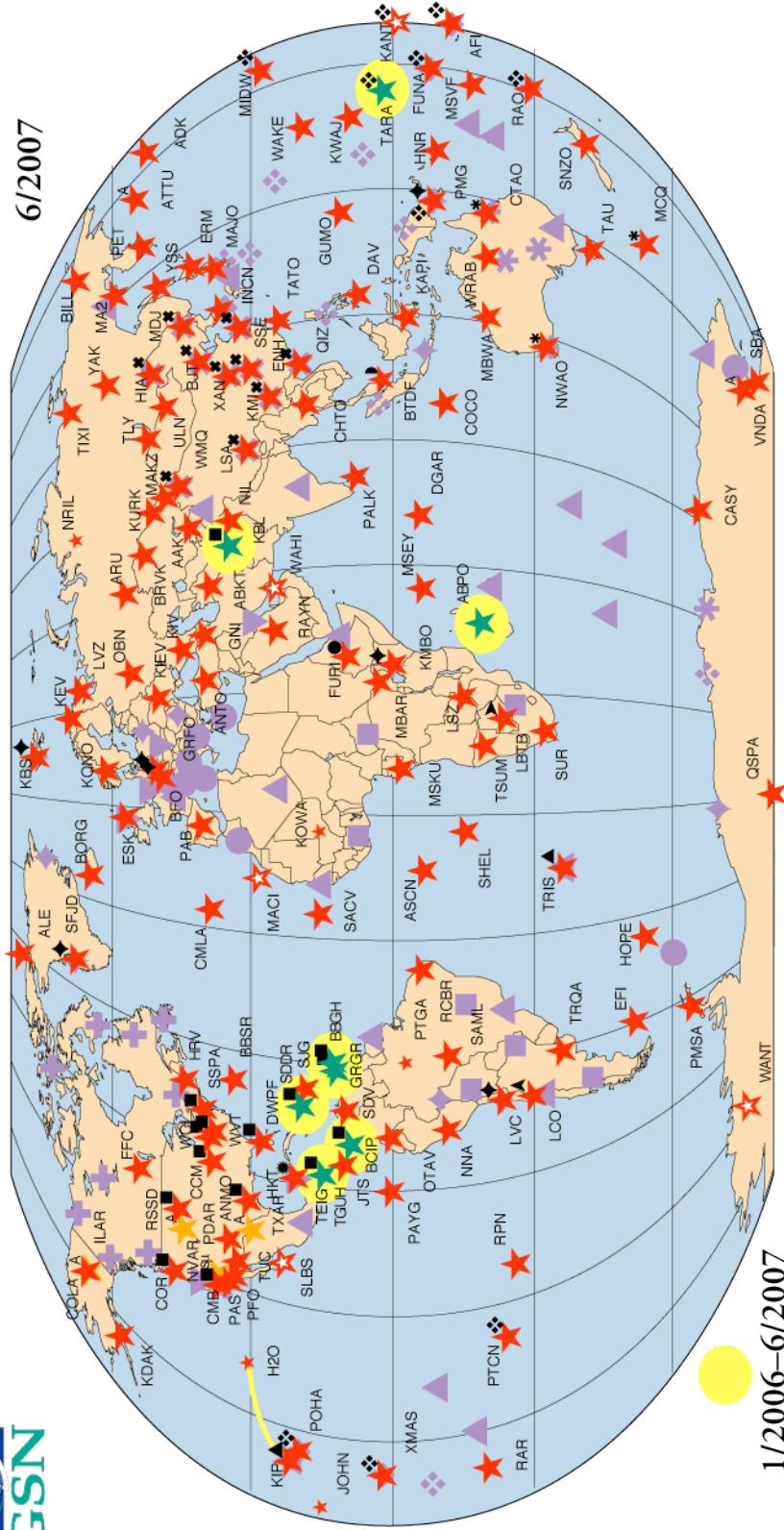
## Advanced National Seismic Network Backbone

The current ANSS Backbone is shown in the map. The EarthScope USArray Permanent Array, which augments the ANSS backbone, was completed September 30, 2006. The Permanent Array (highlighted with yellow symbols on the map) includes 39 seismic installations or upgrades ([www.iris.edu/earthscope/usarray/\\_US-BB-StationList.htm](http://www.iris.edu/earthscope/usarray/_US-BB-StationList.htm)) and 11 GPS monuments. This work was funded by NSF EarthScope, through IRIS with the work accomplished by the USGS Albuquerque Seismological Laboratory. In cooperation with GSN funded site preparations, ANSS has also completed new sites at VBMS Vicksburg, Mississippi, CCUT Cedar City, Utah and RLMT Red Lodge, Montana.



# GLOBAL SEISMOGRAPHIC NETWORK & INTERNATIONAL FEDERATION OF DIGITAL SEISMOGRAPHIC NETWORKS

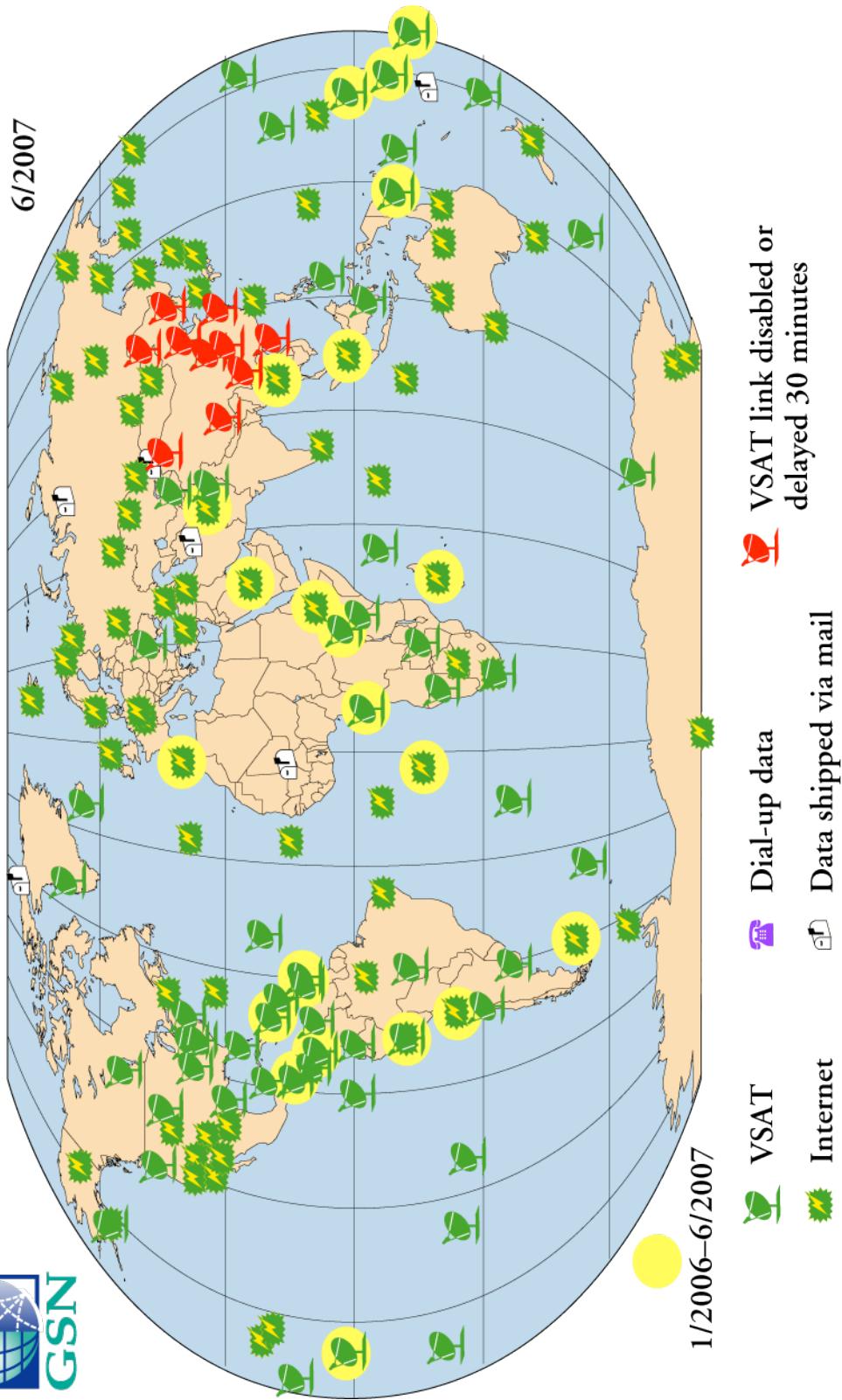
6/2007



1/2006–6/2007

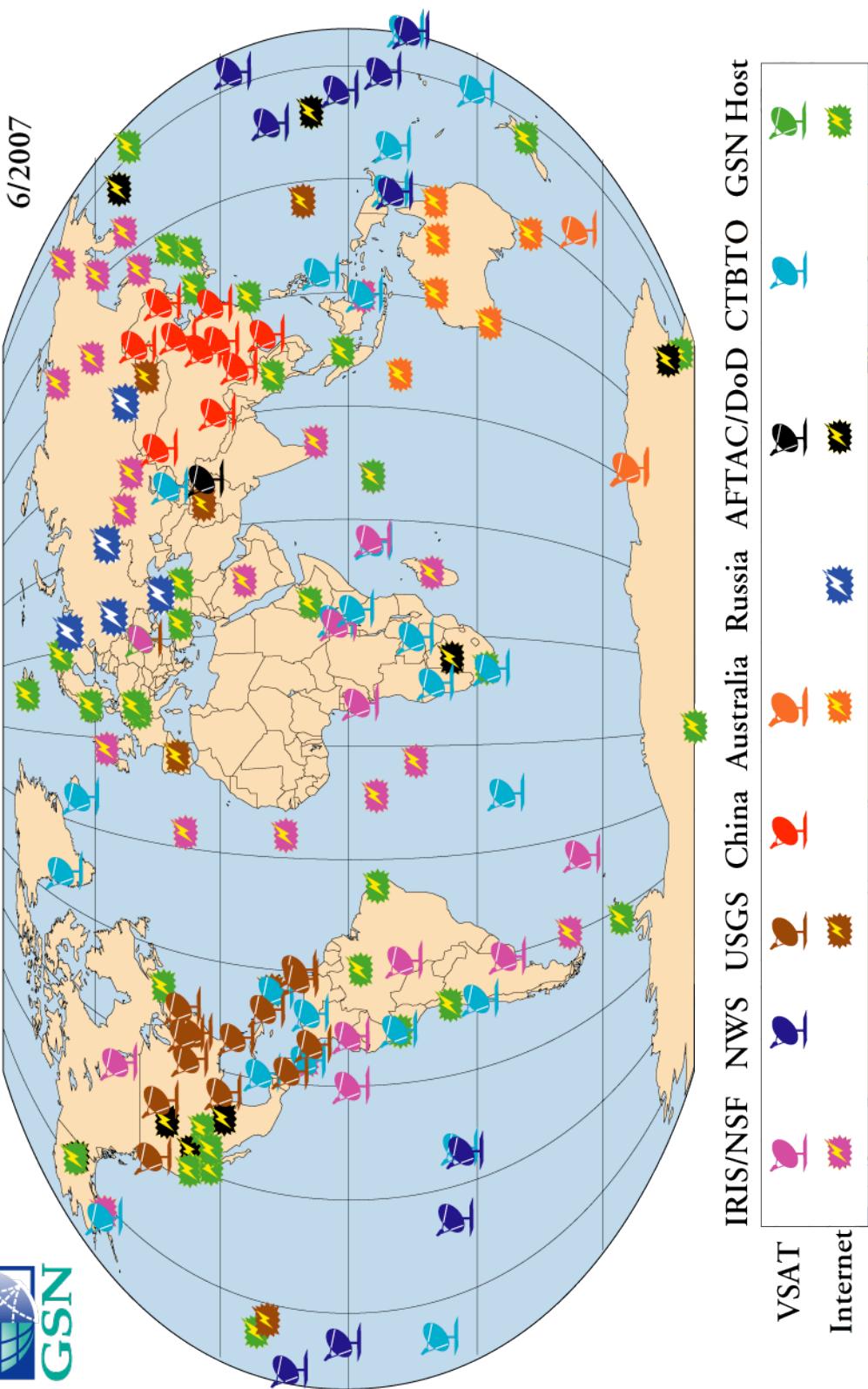


## GSN COMMUNICATIONS



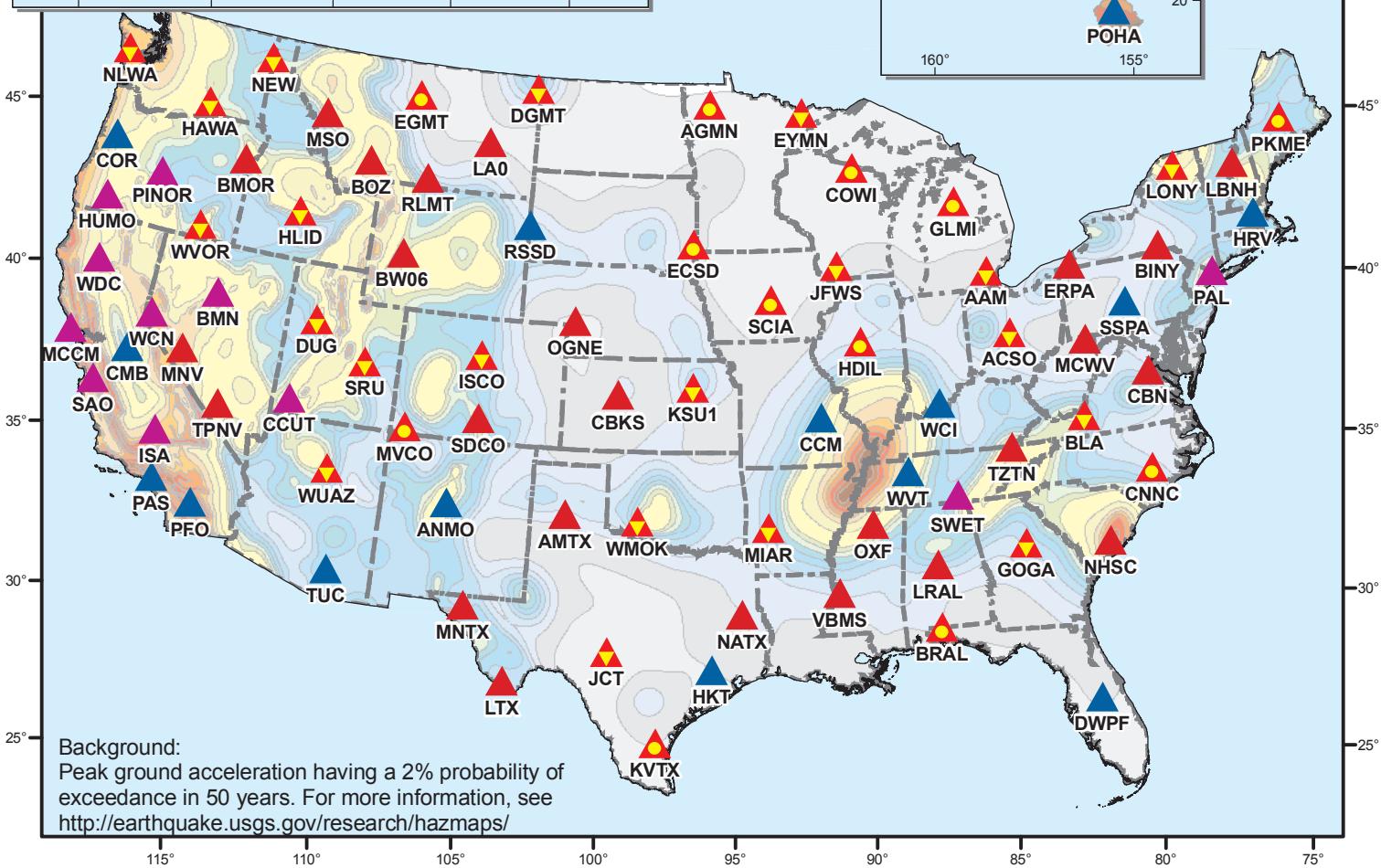
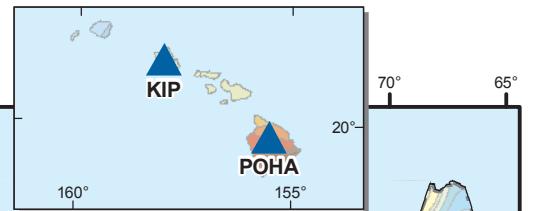
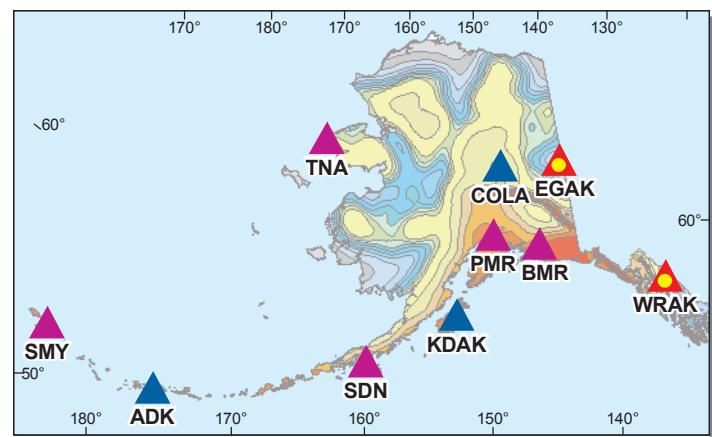


## GSN TELEMETRY ACCESS



## ANSS BACKBONE NATIONAL NETWORK

Status February 2007



## Background:

Peak ground acceleration having a 2% probability of exceedance in 50 years. For more information, see <http://earthquake.usgs.gov/research/hazmaps/>

## Station Legend

- ▲ ANSS Backbone stations operated by USGS
- ▲ USArray stations upgraded by Earthscope for NSF, operated by USGS
- ▲ USArray stations contributed by Earthscope for NSF, operated by USGS
- ▲ Global Seismographic Network stations, operated by USGS and IRIS
- ▲ Stations operated by ANSS partners, data contributed to USGS

## GSN Site List

name	country	GSN code	lat	lon	network	status
<b>North America</b>						
Flin Flon	Manitoba, Canada	FFC	54.73	-101.98	IRIS/IDA (GSN)	Existing
Alert	N.W.T., Canada	ALE	82.50	-62.35	IRIS/IDA (GSN)	Existing
Las Juntas de Abangares	Costa Rica	JTS	10.29	-84.95	IRIS/IDA (GSN)	Existing
Sondre Stromfjord	Greenland	SFJ	67.00	-50.62	IRIS/USGS (GSN) / GEOFON	Closed
Sondre Stromfjord	Greenland	SFJD	67.00	-50.62	IRIS/USGS (GSN) / GEOFON	Existing
Sierra La Laguna, Baja California Sur	Mexico	SLBS	23.69	-109.94	IRIS/USGS (GSN)	Planned
Tepich, Yucatan	Mexico	TEIG	20.23	-88.28	MNSN / IRIS/USGS (GSN)	Existing
San Juan	Puerto Rico	SJG	18.11	-66.15	IRIS/USGS (GSN)	Existing
Gun Hill	Barbados	BBGH	13.14	-59.56	USGS Caribbean Network (IRIS GSN Affiliate)	Existing
Isla Barro Colorado	Panama	BCIP	9.17	-79.84	USGS Caribbean Network (IRIS GSN Affiliate)	Existing
Grenville	Grenada	GRGR	12.13	-61.65	USGS Caribbean Network (IRIS GSN Affiliate)	Existing
Presa de Sabaneta	Dominican Republic	SDDR	18.98	-71.29	USGS Caribbean Network (IRIS GSN Affiliate)	Existing
Tegucigalpa	Honduras	TGUH	14.06	-87.27	USGS Caribbean Network (IRIS GSN Affiliate)	Existing
Adak Island	Alaska, U.S.A.	ADAK	51.88	-176.68	IRIS/USGS (GSN)	Existing
Attu	Alaska, U.S.A.	ATTU	52.88	173.16	AFTAC (IRIS GSN Affiliate)	Existing
College Outpost	Alaska, U.S.A.	COL	64.90	-147.79	IRIS/USGS (GSN)	Closed
College Geophysical Observatory	Alaska, U.S.A.	COLA	64.87	-147.87	IRIS/USGS (GSN)	Existing
Eielson Array	Alaska U.S.A.	ILAR	64.77	-146.89	AFTAC (IRIS GSN Affiliate)	Existing
Kodiak Island	Alaska, U.S.A.	KDAK	57.78	-152.58	IRIS/IDA (GSN)	Existing
Tucson	Arizona, U.S.A.	TUC	32.31	-110.78	UA/IRIS (GSN) / USNSN	Existing
Columbia	California, U.S.A.	CMB	38.04	-120.39	BDSN/IRIS (GSN) / USNSN	Existing
Pasadena	California, U.S.A.	PASC	34.17	-118.19	TRINET/IRIS (GSN)	Existing
Pasadena	California, U.S.A.	PAS	34.15	-118.17	TERRAscope/IRIS (GSN)	Closed
Piñon Flat	California, U.S.A.	PFO	33.61	-116.46	IRIS/IDA (GSN)	Existing
Wyandotte Cave	Indiana, U.S.A.	WCI	38.28	-86.35	SLU/IRIS (GSN) / USNSN	Existing
Disney Wilderness Reserve	Florida, U.S.A.	DWPF	28.33	-81.21	IRIS/USGS (GSN)	Existing
Harvard	Massachusetts, U.S.A.	HRV	42.51	-71.56	Harvard/IRIS (GSN) / USNSN	Existing
Cathedral Caves	Missouri, U.S.A.	CCM	38.06	-91.24	SLU/IRIS (GSN) / USNSN	Existing
Mina Array	Nevada, U.S.A.	NVAR	38.43	-118.30	SMU (IRIS GSN Affiliate)	Existing
Albuquerque	New Mexico, U.S.A.	ANMO	34.95	-106.46	IRIS/USGS (GSN) / USNSN	Existing
Corvallis	Oregon, U.S.A.	COR	44.59	-123.30	OSU/IRIS (GSN) / USNSN	Existing
Standing Stone	Pennsylvania, U.S.A.	SSPA	40.64	-77.89	PSU/IRIS (GSN) / USNSN	Existing
Black Hills	South Dakota, U.S.A.	RSSD	44.12	-104.04	IRIS/USGS (GSN) / USNSN	Existing
Hockley	Texas, U.S.A.	HKT	29.96	-95.84	UTA/IRIS (GSN) / USNSN	Existing
Lajitas Array	Texas, U.S.A.	TXAR	29.33	-103.67	AFTAC (IRIS GSN Affiliate)	Existing
Waverly	Tennessee, U.S.A.	WVT	36.11	-87.78	SLU/IRIS (GSN) / USNSN	Existing
Pinedale Array	Wyoming, U.S.A.	PDAR	42.77	-109.56	AFTAC (IRIS GSN Affiliate)	Existing

## GSN Site List

<b>South America</b>						
Tornquist	Argentina	TRQA	-32.08	-62.15	IRIS/USGS (GSN)	Existing
Riachuelo	Brazil	RCBR	-5.83	-35.90	IRIS/USGS (GSN)	Existing
Pitinga	Brazil	PTGA	-0.73	-59.97	IRIS/USGS (GSN)	Existing
Samuel Dam	Brazil	SAML	-8.95	-63.18	IRIS/USGS (GSN)	Existing
Limon Verde	Chile	LVC	-22.61	-68.91	IRIS/USGS (GSN) / GEOFON	Existing
Las Campanas	Chile	LCO	-29.01	-70.70	Carnegie/IRIS/Andes (GSN)	Existing
Bogota	Colombia	BOCO	4.62	-74.12	IRIS/USGS (GSN)	Closed
Otavalo	Ecuador	OTAV	0.24	-78.44	IRIS/USGS (GSN)	Existing
Naña	Peru	NNA	-11.99	-76.84	IRIS/IDA (GSN)	Existing
Santo Domingo	Venezuela	SDV	8.88	-70.63	IRIS/USGS (GSN)	Existing
<b>Atlantic Ocean</b>						
Ascension	Ascension Island	ASCN	-7.93	-14.36	IRIS/IDA (GSN)	Existing
Cha de Marcela	Azores	CMLA	37.76	-25.52	IRIS/IDA (GSN)	Existing
Bermuda	Bermuda	BBSR	32.37	-64.70	IRIS/USGS (GSN)	Existing
Morro de la Arena	Canary Islands	MACI	28.68	-17.91	IRIS/USGS (GSN) / IGN-Spain	Planned
Taburiente	Canary Islands	TBT	28.68	-17.91	IRIS/USGS (GSN) / IGN-Spain	Closed
East Falkland Island	Falkland Islands	EFI	-51.48	-58.41	IRIS/IDA (GSN)	Existing
Borgarnes	Iceland	BORG	64.75	-21.33	IRIS/IDA (GSN)	Existing
St. Helena	St. Helena Island	SHEL	-15.96	-5.75	IRIS/IDA (GSN)	Existing
South Georgia	South Georgia Island	HOPE	-54.28	-36.49	IRIS/IDA (GSN)	Existing
Santiago Is.	Cape Verde Islands	SACV	14.97	-23.61	IRIS/IDA (GSN)	Existing
Trindade	Trindade Island	TRNB	-20.50	-29.30	IRIS/USGS (GSN)	Proposed
Tristan da Cunha	Tristan da Cunha	TRIS	-37.00	-12.50	IRIS/USGS (GSN)/Geoscope	Existing
<b>Europe</b>						
Kevo	Finland	KEV	69.76	27.01	IRIS/USGS (GSN)	Existing
Black Forest Observatory	Germany	BFO	48.33	8.33	BFO/IRIS (GSN Affiliate)	Existing
Graefenberg Array	Germany	GRFO	49.69	11.22	IRIS/USGS (GSN) / BGR	Existing
Ny-Alesund	Spitsbergen, Norway	KBS	78.93	11.94	IRIS/USGS (GSN) / GEOFON/AWI	Existing
Kongsberg	Norway	KONO	59.65	9.60	IRIS/USGS (GSN)	Existing
San Pablo	Spain	PAB	39.55	-4.35	IRIS/USGS (GSN)	Existing
Lovozero	Russia	LVZ	67.90	34.65	IRIS/IDA (GSN)	Existing
Obninsk	Russia	OBN	55.11	36.57	IRIS/IDA (GSN)	Existing
Toledo	Spain	TOL	39.88	-4.05	IRIS/USGS (GSN)	Closed
Eskdalemuir	Scotland, U.K.	ESK	55.32	-3.21	IRIS/IDA (GSN)	Existing
Kiev	Ukraine	KIEV	50.69	29.21	IRIS/USGS (GSN)	Existing
<b>Africa</b>						
Lobatse	Botswana	LBTB	-25.02	25.60	Botswana/IRIS (GSN Affiliate)	Existing
Addis Ababa	Ethiopia	AAE	9.03	38.77	IRIS/USGS (GSN) / Ethiopia	Closed
Furi	Ethiopia	FURI	8.90	38.69	IRIS/USGS (GSN) / MEDNET	Existing
Masuku	Gabon	MSKU	-1.66	13.61	IRIS/USGS (GSN)	Existing

### GSN Site List

Nairobi	Kenya	NAI	-1.27	36.80 IRIS/USGS (GSN) / GEOFON	Closed
Kilima Mbogo	Kenya	KMBO	-1.13	37.25 IRIS/USGS (GSN) / GEOFON	Existing
Kowa	Mali	KOWA	14.50	-4.02 IRIS/USGS (GSN)	Existing
Tsumeb	Namibia	TSUM	-19.20	17.58 IRIS/USGS (GSN)	Existing
Sutherland	South Africa	SUR	-32.38	20.81 IRIS/IDA (GSN)	Existing
Mbarara	Uganda	MBAR	0.36	30.40 IRIS/IDA (GSN)	Existing
Lusaka	Zambia	LSZ	-15.28	28.19 IRIS/USGS (GSN)	Existing
<b>Indian Ocean</b>					
Diego Garcia	Chagos Archipelago	DGAR	-7.41	72.45 IRIS/IDA (GSN)	Existing
West Island	Cocos (Keeling) Islands	COCO	-12.19	96.83 IRIS/IDA (GSN)	Existing
Ambohimpanompo	Madagascar	ABPO	-19.02	47.23 IRIS/IDA (GSN)	Existing
Mahe	Seychelles Islands	MSEY	-4.67	55.48 IRIS/IDA (GSN)	Existing
Pallekele	Sri Lanka	PALK	7.27	80.70 IRIS/IDA (GSN)	Existing
<b>Asia</b>					
Garni	Armenia	GNI	40.15	44.74 IRIS/USGS (GSN)	Existing
Kabul	Afganistan	KBL	34.54	69.04 USGS/AFTAC (IRIS GSN Affiliate)	Existing
Baijiatuan (Beijing)	China	BJT	40.02	116.17 IRIS/USGS (GSN) / NCDSN	Existing
Enshi	China	ENH	30.27	109.49 IRIS/USGS (GSN) / NCDSN	Existing
Hailar	China	HIA	49.27	119.74 IRIS/USGS (GSN) / NCDSN	Existing
Kunming	China	KMI	25.12	102.74 IRIS/USGS (GSN) / NCDSN	Existing
Lhasa	China	LSA	29.70	91.15 IRIS/USGS (GSN) / NCDSN	Existing
Mudanjiang	China	MDJ	44.62	129.59 IRIS/USGS (GSN) / NCDSN	Existing
Qiongzong	China	QIZ	19.03	109.84 IRIS/USGS (GSN) / NCDSN	Existing
Sheshan	China	SSE	31.10	121.19 IRIS/USGS (GSN) / NCDSN	Existing
Urumqi	China	WMQ	43.82	87.70 IRIS/USGS (GSN) / NCDSN	Existing
Xi'an	China	XAN	34.03	108.92 IRIS/USGS (GSN) / NCDSN	Existing
Sulawesi	Indonesia	KAPI	-5.02	119.75 IRIS/IDA (GSN)	Existing
Erimo	Japan	ERM	42.02	143.16 IRIS/IDA (GSN)	Existing
Matsushiro	Japan	MAJO	36.54	138.21 IRIS/USGS (GSN)	Existing
Borovoye	Kazakhstan	BRVK	53.06	70.28 IRIS/IDA (GSN)	Existing
Kurchatov	Kazakhstan	KURK	50.72	78.62 IRIS/IDA (GSN)	Existing
Makanchi	Kazakhstan	MAKZ	46.81	81.98 IRIS/USGS (GSN)	Existing
Ala-Archa	Kyrgyzstan	AAK	42.64	74.49 IRIS/IDA (GSN)	Existing
Ulaan Baatar	Mongolia	ULN	47.87	107.05 IRIS/USGS (GSN)	Existing
Nilore	Pakistan	NIL	33.65	73.25 IRIS/IDA (GSN)	Existing
Davao	Philippines	DAV	7.07	125.58 IRIS/USGS (GSN)	Existing
Arti	Russia	ARU	56.43	58.56 IRIS/IDA (GSN)	Existing
Kislovodsk	Russia	KIV	43.96	42.69 IRIS/IDA (GSN)	Existing
Magadan	Russia	MA2	59.58	150.77 IRIS/USGS (GSN)	Existing
Norilsk	Russia	NRIL	69.50	88.44 IRIS/IDA (GSN)	Existing
Novosibirsk	Russia	NVS	54.84	83.23 IRIS/IDA (GSN)	Closed

### GSN Site List

Petropavlovsk-Kamchatskiy	Russia	PET	53.02	158.65 IRIS/USGS (GSN)	Existing
Bilibino	Russia	BILL	68.07	166.45 IRIS/USGS (GSN)	Existing
Talaya	Russia	TLY	51.68	103.64 IRIS/IDA (GSN)	Existing
Tiksi	Russia	TIXI	71.65	128.87 IRIS/USGS (GSN)	Existing
Yakutsk	Russia	YAK	62.03	129.68 IRIS/USGS (GSN)	Existing
Yuzhno-Sakhalinsk	Russia	YSS	46.96	142.76 IRIS/USGS (GSN) / Pacific21	Existing
Ar Rayn	Saudi Arabia	RAYN	23.60	45.60 IRIS/IDA (GSN)	Existing
Bukit Timah Dairy Farm	Singapore	BTDF	1.36	103.77 Singapore/IRIS (GSNAffiliate)	Existing
Inchon	South Korea	INCN	37.48	126.63 IRIS/USGS (GSN)	Existing
Seoul	South Korea	SEO	37.57	126.97 IRIS/USGS (GSN)	Closed
Garm	Tadzhikistan	GAR	39.00	70.32 IRIS/IDA (GSN)	Closed
Taipei	Taiwan	TATO	24.98	121.49 IRIS/USGS (GSN)	Existing
Chiang Mai	Thailand	CHTO	18.79	98.98 IRIS/USGS (GSN)	Existing
Ankara	Turkey	ANTO	39.87	32.79 IRIS/USGS (GSN)	Existing
Alibek	Turkmenistan	ABKT	37.93	58.12 IRIS/IDA (GSN)	Existing
Wadi Hilu	United Arab Emirates	WAHI	24.94	56.20 IRIS/IDA (GSN)	Planned
<b>Australia</b>					
Tennant Creek	Northern Territory	WRAB	-19.93	134.36 IRIS/IDA (GSN)	Existing
Charters Towers	Queensland	CTAO	-20.09	146.25 IRIS/USGS (GSN)	Existing
Hobart	Tasmania	TAU	-42.91	147.32 IRIS/IDA (GSN)	Existing
Marble Bar	Western Australia	MBWA	-21.16	119.73 IRIS/USGS (GSN)	Existing
Narrogin	Western Australia	NWAO	-32.93	117.23 IRIS/USGS (GSN)	Existing
<b>Pacific Ocean</b>					
Rarotonga	Cook Islands	RAR	-21.21	-159.77 IRIS/USGS (GSN)	Existing
Rapa Nui	Easter Island, Chile	RPN	-27.13	-109.33 IRIS/IDA (GSN)	Existing
Puerto Ayora, Santa Cruz Is.	Galapagos Is., Ecuador	PAYG	-0.66	-90.23 IRIS/USGS (GSN)	Existing
Monasavu	Viti Levu, Fiji	MSVF	-17.73	178.05 IRIS/IDA (GSN)	Existing
Pitcairn	Pitcairn Island	PTCN	-25.07	-130.10 IRIS/USGS (GSN) / NIED	Existing
Pohakuloa	Hawaii, U.S.A.	POHA	19.76	-155.53 IRIS/USGS (GSN) / NIED	Existing
Kipapa	Hawaii, U.S.A.	KIP	21.42	-158.02 IRIS/USGS (GSN) / Geoscope	Existing
Hawaii-2 Observatory	Northeast Pacific	H2O	27.88	-141.99 IRIS/U Hawaii/WHOI (GSN Affiliate)	Closed
Johnston Atoll	Johnston Atoll	JOHN	16.45	-169.42 IRIS/USGS (GSN)	Existing
Raoul Island	Kermadec Islands	RAO	-29.25	-177.92 IRIS/USGS (GSN) / NIED	Existing
Kiritimati	Kiribati	XMAS	2.00	-157.30 IRIS/USGS (GSN) / NIED	Existing
Tarawa	Kiribati	TARA	1.35	172.92 IRIS/USGS (GSN) / NIED	Existing
Kanton	Kiribati	KANT	-2.50	-171.40 IRIS/USGS (GSN) / NIED	Planned
Macquarie Island	Macquarie Island	MCQ	-54.50	158.96 Geoscience Australia (IRIS GSN Affiliate)	Existing
Guam	Marianas Islands	GUMO	13.59	144.87 IRIS/USGS (GSN)	Existing
Kwajalein Atoll	Marshall Islands	KWAJ	9.15	167.30 IRIS/IDA (GSN)	Existing
Midway	Midway Islands	MIDW	28.21	-177.33 IRIS/USGS (GSN) / NIED	Existing
South Karori	New Zealand	SNZO	-41.31	174.70 IRIS/USGS (GSN)	Existing

### GSN Site List

Port Moresby	Papua New Guinea	PMG	-9.41	147.15 IRIS/USGS (GSN) / GEOFON / Pacific21	Existing
Afiamalu	Samoa Islands	AFI	-13.91	-171.78 IRIS/USGS (GSN)	Existing
Honiara	Solomon Islands	HNR	-9.43	159.95 IRIS/USGS (GSN)	Existing
Funafuti	Tuvalu	FUNA	8.53	179.20 IRIS/USGS (GSN) /NIED	Existing
Wake	Wake Island	WAKE	19.28	166.65 IRIS/USGS (GSN)	Existing
<b>Antarctica</b>					
West Antarctic Ice Sheet	Antarctica	WAIS?	-80.00	-119.40 IRIS (GSN)	Proposed
Casey	Antarctica	CASY	-66.28	110.54 IRIS/USGS (GSN)	Existing
Palmer Station, Palmer Peninsula	Antarctica	PMSA	-64.77	-64.05 IRIS/USGS (GSN)	Existing
Scott Base	Antarctica	SBA	-77.85	166.76 USGS/IRIS (GSN)	Existing
Vanda	Wright Valley, Antarctica	VNDA	-77.51	161.85 AFTAC (IRIS GSN Affiliate)	Existing
Quiet-sector South Pole	Antarctica	QSPA	-89.93	145.00 IRIS/USGS (GSN)	Existing
South Pole	Antarctica	SPA	-90.00	125.72 IRIS/USGS (GSN)	Closed