

## **FDSN Network Report GRF/GRSN 2007**

### **German Regional Seismic Network (GRSN) and Gräfenberg-Array (GRF)**

Klaus Stammler, 26-Jun-2007

Seismological Observatory Gräfenberg (SZGRF)

of the Federal Institute for Geosciences and Natural Resources (BGR)

In 2006 all 13 GRF stations have been equipped with STS-2 instruments. This means all stations now are VBB and have 3 components and a VBB characteristic. The old instruments have been the first series of Streckeisen-1 instruments, installed between 1976 and 1980, with a passband of 0.05Hz to 5Hz. 10 stations were vertical, only 3 stations had three components. The continuous GRF data since that time are available from the same data services as the GRSN (see below).

The operation of the stations of the GRSN has been continued as before. Most of the stations are operated in close cooperation with universities and other research institutions in Germany. In 2006 a new broadband station GTTG (Göttingen) has been added. In total there is now a number of 20 GRSN stations available. The data set is complemented by currently 8 additional stations from local networks in the Eastern and Southeastern part of Germany. The data of the GRF and GRSN stations are available continuously (as 20Hz for all stations and as 80/100Hz for most of the GRSN stations) via AutoDRM ([autodrm@szgrf.bgr.de](mailto:autodrm@szgrf.bgr.de)), WWW ([www.szgrf.bgr.de](http://www.szgrf.bgr.de)) and WebDC ([www.webdc.eu](http://www.webdc.eu)). Many of the GRSN stations are also available via seedlink connections in near-real-time. Please contact Klaus Stammler ([klaus@szgrf.bgr.de](mailto:klaus@szgrf.bgr.de)) for further information on seedlink connections.

Currently we are about to change digitisers at GRF and some older GRSN stations. This is to replace old and outdated hardware. At most places the new digitiser hardware will be Reftek 130, at some stations also Quanterra Q330 are planned. This digitiser refurbishment is intended to be completed until summer 2008.

A table with German broadband stations follows:

| Name                          | ID   | Lat.  | Lon.  | Net   | Instrum. | Arch. Start |
|-------------------------------|------|-------|-------|-------|----------|-------------|
| Bad Segeberg                  | BSEG | 53,94 | 10,32 | GR    | STS-2    | 01.12.1995  |
| Berggieshuebel                | BRG  | 50,87 | 13,94 | GR    | STS-2    | 01.03.1993  |
| Bochum                        | BUG  | 51,44 | 7,27  | GR    | STS-2    | 01.11.1991  |
| Clausthal                     | CLZ  | 51,84 | 10,37 | GR    | STS-2    | 01.07.1991  |
| Collm                         | CLL  | 51,31 | 13,00 | GR    | STS-2    | 01.04.1993  |
| Fuerstenfeldbruck (Muenchen)  | FUR  | 48,16 | 11,28 | GR    | STS-2    | 01.07.1991  |
| Göttingen                     | GTTG | 51,55 | 9,96  | GR    | STS-2    | 01.04.2006  |
| GERESS Array Site C2          | GEC2 | 48,84 | 13,71 | GR    | STS-2    | 30.09.1988  |
| Graefenberg Borehole Station  | GRFO | 49,69 | 11,22 | IU/GR | KS54000i | 01.06.1994  |
| Helgoland                     | HLG  | 54,18 | 7,88  | GE/GR | STS-2    | 01.12.2001  |
| Ibbenbueren                   | IBBN | 52,31 | 7,76  | GE/GR | STS-2    | 01.04.1996  |
| Niedersachsen-Riedel          | NRDL | 52,49 | 10,11 | GR    | STS-2    | 01.03.2003  |
| Moxa                          | MOX  | 50,64 | 11,62 | GR    | STS-2    | 01.11.1992  |
| Ruedersdorf                   | RUE  | 52,48 | 13,78 | GE/GR | STS-2    | 01.01.2000  |
| Ruegen Island                 | RGN  | 54,55 | 13,32 | GE/GR | STS-2    | 01.12.1995  |
| Schiltach                     | BFO  | 48,33 | 8,33  | II    | STS-1    |             |
| Schiltach                     | BFO  | 48,33 | 8,33  | GR    | STS-2    | 01.07.1991  |
| Stuttgart                     | STU  | 48,77 | 9,19  | GE/GR | STS-2    | 31.03.1990  |
| Taunusobservatorium (Frankfur | TNS  | 50,22 | 8,45  | GR    | STS-2    | 01.07.1991  |
| Unterbreizbach                | UBBA | 50,82 | 10,00 | GR    | STS-2    | 01.06.2003  |
| Wetzell (Bavarian Forest)     | WET  | 49,14 | 12,88 | GR    | STS-2    | 01.07.1991  |
| Gräfenberg Array Station A1   | GRA1 | 49,69 | 11,22 | GR    | STS-2    | 01.04.1976  |
| Gräfenberg Array Station A2   | GRA2 | 49,66 | 11,36 | GR    | STS-2    | 01.04.1976  |
| Gräfenberg Array Station A3   | GRA3 | 49,76 | 11,32 | GR    | STS-2    | 01.04.1976  |
| Gräfenberg Array Station A4   | GRA4 | 49,57 | 11,44 | GR    | STS-2    | 01.04.1979  |
| Gräfenberg Array Station B1   | GRB1 | 49,39 | 11,65 | GR    | STS-2    | 01.04.1978  |
| Gräfenberg Array Station B2   | GRB2 | 49,27 | 11,67 | GR    | STS-2    | 01.04.1978  |
| Gräfenberg Array Station B3   | GRB3 | 49,34 | 11,81 | GR    | STS-2    | 01.04.1978  |
| Gräfenberg Array Station B4   | GRB4 | 49,47 | 11,56 | GR    | STS-2    | 01.04.1979  |
| Gräfenberg Array Station B5   | GRB5 | 49,11 | 11,68 | GR    | STS-2    | 01.10.1979  |
| Gräfenberg Array Station C1   | GRC1 | 49    | 11,52 | GR    | STS-2    | 01.04.1979  |
| Gräfenberg Array Station C2   | GRC2 | 48,87 | 11,38 | GR    | STS-2    | 01.04.1980  |
| Gräfenberg Array Station C3   | GRC3 | 48,89 | 11,59 | GR    | STS-2    | 01.04.1979  |
| Gräfenberg Array Station C4   | GRC4 | 49,09 | 11,53 | GR    | STS-2    | 01.10.1979  |
| Manzenberg                    | MANZ | 49,99 | 12,11 | BW    | STS-2    | 01.02.2006  |
| Rotzenmühle                   | ROTZ | 49,77 | 12,21 | BW    | STS-2    | 01.08.2005  |
| Freiberg                      | FBE  | 50,92 | 13,35 | SX    | LE3D 5s  | 24.04.2005  |
| Gunzen                        | GUNZ | 50,36 | 12,33 | SX    | LE3D 5s  | 16.12.2000  |
| Neuenburg                     | NEUB | 51,21 | 11,78 | SX    | STS-2    | 21.08.2003  |
| Tannenbergsthal               | TANN | 50,41 | 12,46 | SX    | STS-2    | 19.12.2000  |
| Werda                         | WERD | 50,45 | 12,31 | SX    | LE3D 5s  | 13.06.2001  |
| Wernitzgrün                   | WERN | 50,29 | 12,38 | SX    | LE3D 5s  | 02.08.2000  |

