GEE altimetry/bathymetry data

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ABSTRACT

Altimetry/bathymetry data from Jon Claerbout's book, *Geophysical Estimation by Example* (Claerbout, 1998).

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SAN FRANCISCO BAY TOPOGRAPHY

Raw Data /homes/sep/prof/gee/Data/bay.H
Velocity Model N/A
Stack N/A
Zero-offset Migration N/A
Usage Helix Filtering: (Claerbout, 1998), (Zhao, 1999) **Geometry**

```
/homes/sep/prof/gee/Data/bay.H:
       in="stdin"
       expands to in="stdin"
       esize=4
       n1=1201 n2=2402 n3=1         2884802 elem     11539208 bytes
       d1=1    d2=1    d3=1
       o1=0    o2=0    o3=0
```

Problem N/A
History of Data Satellite altimetry(?) data of San Francisco Bay area and vicinity.
Preprocessing N/A
Proprietary Considerations N/A

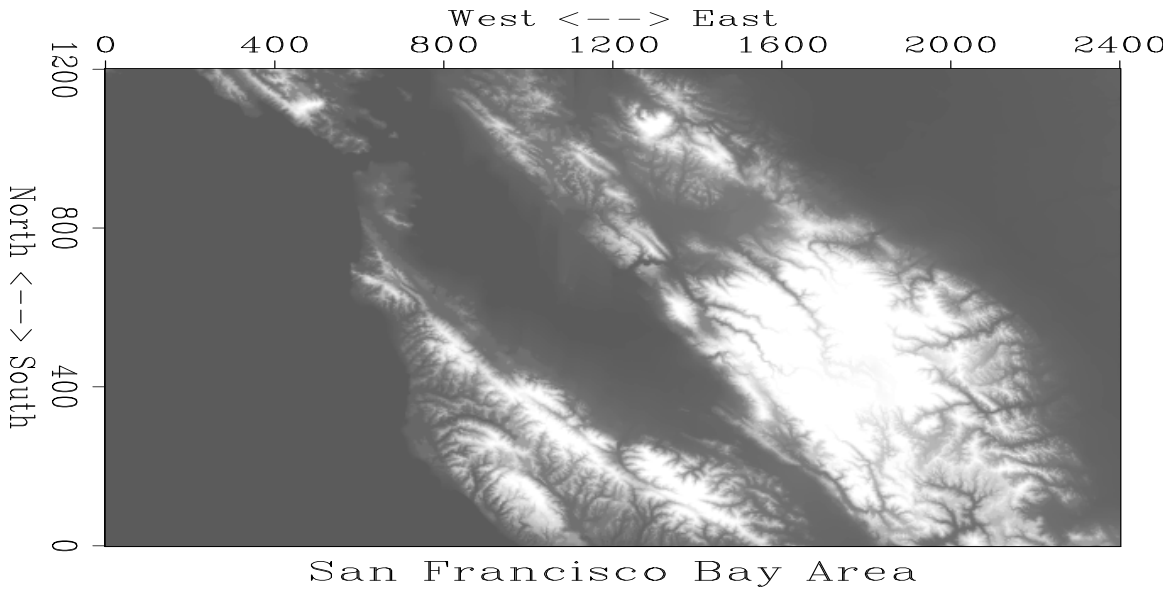

Figure 1: San Francisco Bay topography. gee-altim-sfbay [ER]

MOUNT VESUVIUS SAR DATA

Raw Data /homes/sep/prof/gee/Data/vesuvio.H
Velocity Model N/A
Stack N/A
Zero-offset Migration N/A
Usage Phase Unwrapping: (Claerbout, 1998) **Geometry**

```
/homes/sep/prof/gee/Data/vesuvio.H:
       in="stdin"
       expands to in="stdin"
       esize=8
       n1=700  n2=700  n3=1            490000 elem     3920000 bytes
       d1=1?   d2=1?   d3=1?
       o1=0?   o2=0?   o3=0?
```

Problem N/A
History of Data Synthetic Aperture Radar (SAR) data from Mt. Vesuvius, Italy area. Donated by Umberto Spagnolini
Preprocessing N/A
Proprietary Considerations N/A

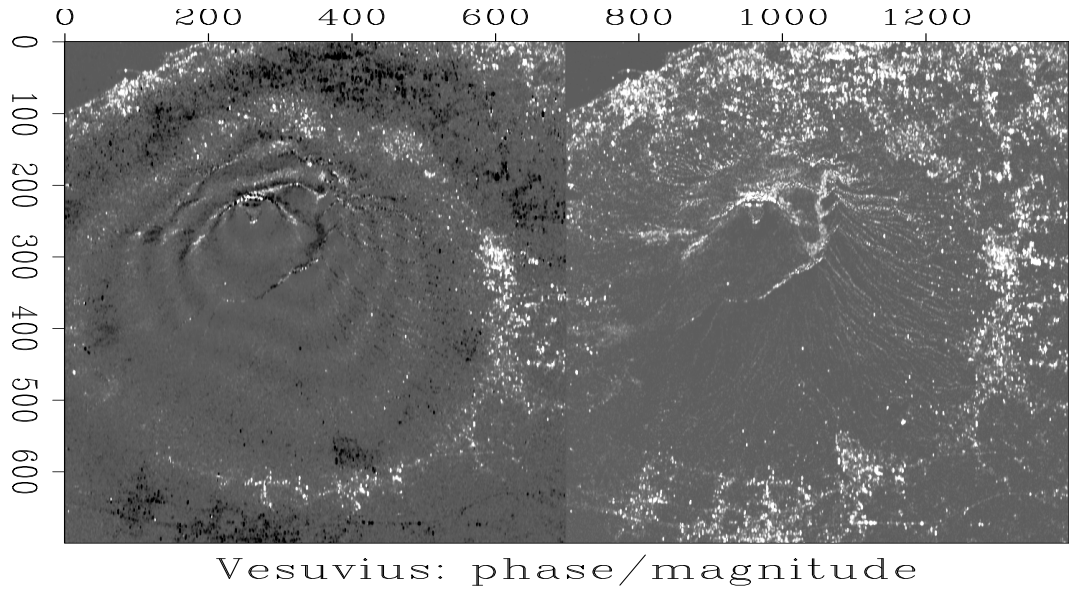

Figure 2: Mount Vesuvius SAR data. gee-altim-vesuvius [ER]

SEA OF GALILEE BATHMETRY

Raw Data /homes/sep/prof/gee/Data/galilee.H
Velocity Model N/A
Stack N/A
Zero-offset Migration N/A
Usage Interpolation, Helix filtering, Missing data, Preconditioning, Median filtering, Acquisition footprint: (Claerbout, 1998) **Geometry**

```
galilee.H:
        in="stdin"
        expands to in="stdin"
        esize=4
        n1=3    n2=132044       n3=1    396132 elem     1584528 bytes
        d1=1?   d2=1?   d3=1?
        o1=0?   o2=0?   o3=0?
```

Problem N/A
History of Data Donated by Professor Zvi ben Avraham (`zvi@jupiter1.tau.ac.il`), Tel Aviv University.

```
Hi Jon,

It is nice to learn that these data are of interest.  Collecting them was
a great effort.  Here are some technical details.

The data were collected using Odom Echotrack DF3200 Echosounder.  The band
width is 8 degrees, the frequency is 200 KHz and the accuracy of the
measurerments is 0.001 percent of the depth.

The results of these measurements were published by Ben-Avraham et al in
1990, Israel J. Earth Sci. 39, 77-84.  You may find it difficult to
locate this famous journal in your library.  When publishing your work,
the acknowledgments of the data source would be greatly appreciated.

Best regards,
Zvi Ben-Avraham
Professor of Geophysics
Head, The Dead Sea Research Center
```

Preprocessing Raw data in (x, y, z) "triplets", with fourth w field (1 for likely spurious data point, 0 otherwise) added by Claerbout later.
Proprietary Considerations N/A

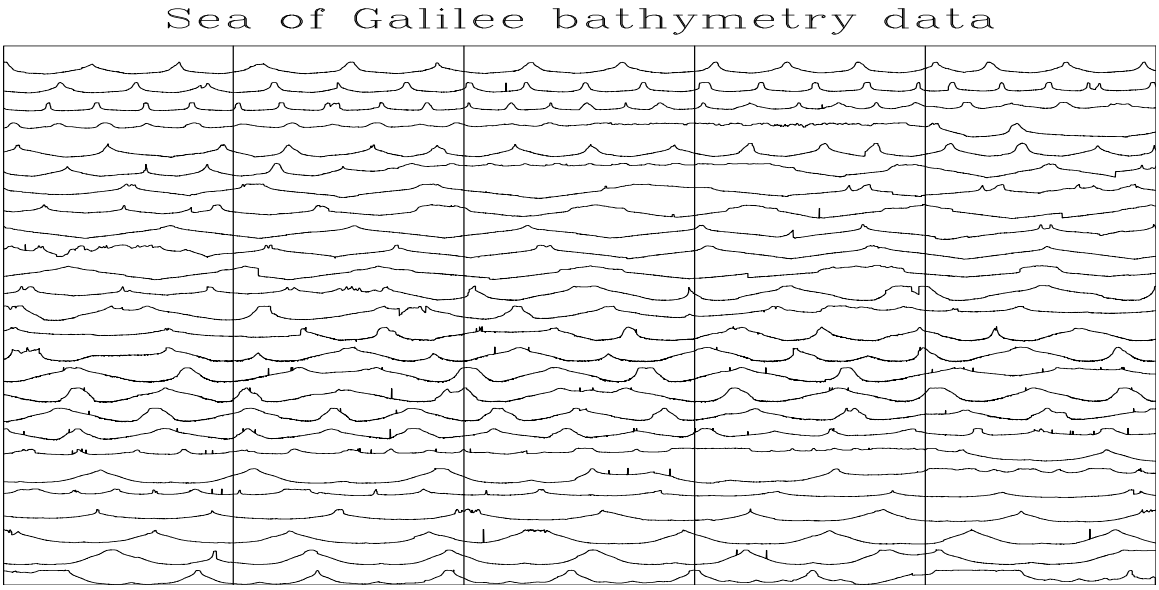

Figure 3: Sea of Galilee bathymetry. gee-altim-galilee [ER]

REFERENCES

Claerbout, J. Geophysical Estimation by Example: Environmental soundings image enhancement:. http://sepwww.stanford.edu/sep/prof/, 1998.

Zhao, Y., 1999, Helix derivative and low-cut filters' spectral feature and application: SEP–**100**, 235–250.