

YOCMAL SEISNET

YOCMAL SEISMIC NETWORK YEMEN Field report

Deployment 23 March 2009 – 16 April 2009

M. Abbass

E. d'Acremont

H. Ahmed

C. Basuyau

D. Keir

S. Lerov

N. Razzak

F. Rolandone

Saleh

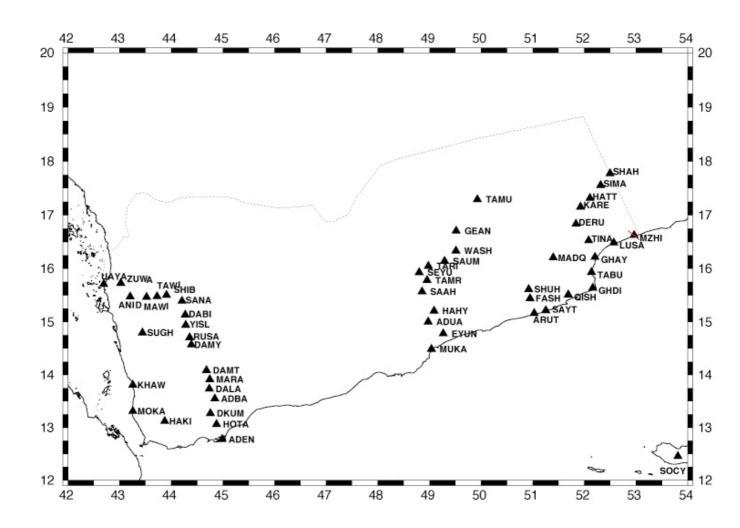
Service 1 3 July 2009 – 17 July 2009

H. Ahmed

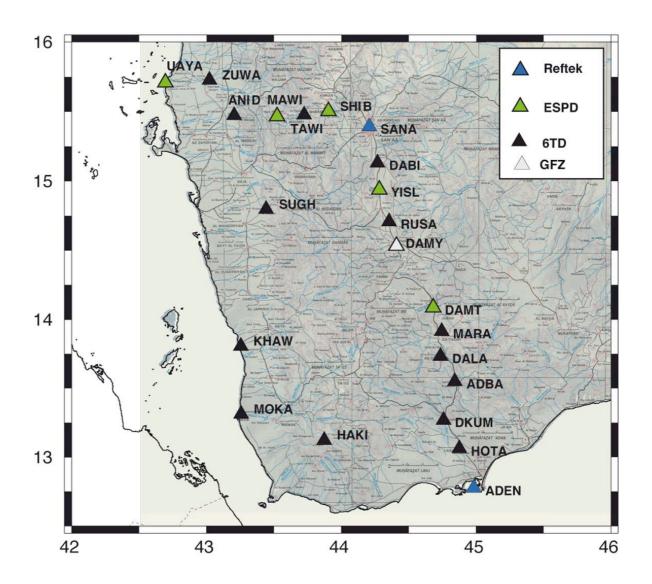
F. Lucazeau

C. Tiberi

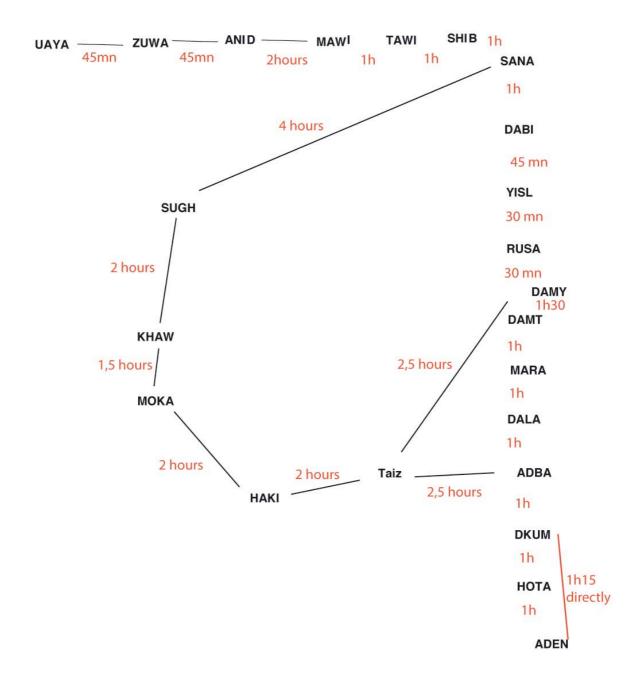
GSMRB YNSOC



Western PROFILE - YOCMAL SEISNET YEMEN - March April 2009



Time transportation between stations:



Sanaa (SANA)



Site Name: Sanaa Site Code: SANA Network Code: Yocmal

Deployment team: EA, FR, DK, NR **Station type**: Reftek

WGS84 – Latitude: 15.39263°N Longitude: 44.20682°E Altitude: 2253m

UTM-

Land use: room in the Yemen Remote Sensing and GIS Center (YRSC)

Sensor burial material: directly on the floor

Other noise sources: new level construction at the top of this bulding

Contacts: Professor Khaled Khanbari (773710768)

Yemen Remote Sensing and GIS Center (YRSC)

Other comments: No solar panel installed, there is a battery charger.

Hotel available in town: Sky Home Hotel (Zubairy Street, special price

from the Geological survey and mineral resources board);

Deployed 26th March 2009

Aden (ADEN)





Site Name: Aden Site Code: ADEN Network Code: Yocmal Deployment team: EA, FR, DH, NR Station type: Reftek WGS84 – Latitude: 12.775917°N Longitude: 44.982444°E Altitude: 59m

UTM-

Land use: House of the Geophysical survey (accelerometer, ...)

Sensor burial material: directly on the floor

Other noise sources:

Contacts: Nageeb Razzak (777101155)

Geophysical Survey Damaar

Other comments: The GPS and the solar panel are on the roof. Need to bring polyester to

protect the sensor on service run.

Hotel available in Aden town: Yemen Stars Tourism Hotel (Arwa

Queen Street, Al-Akaba Road, Aden).

Deployed 27th March 2009

Al Hota (HOTA)



Deployment team: EA, FR, DH, NR **Station type**: 6TD

WGS84 – Latitude: 13.06390°N **Longitude**: 44.87572°E **Altitude**: 132m

UTM- 38P, 0486528, 1444206

Land use: live stock

Sensor burial material: sand and plastic bag

Other noise sources: Wedding the 7/04/2009, chickens,...

Contacts: The owner of the house (the son): Mr Mohamed Mahmeed Ali Thabet

(02503135)

Other comments: We paid 6000R to the owner for the first two months (from 28th March

2009). The agreement is 3000R/month. Need to pay 12 000R on service

run.

Deployed 28th March 2009

Dkum (DKUM)



Site Name: Dkum Site Code: DKUM Network Code: Yocmal

Deployment team: EA, FR, DH, NR **Station type**: 6TD

WGS84 – Latitude: 12.271083°N **Longitude**: 44.757361°E **Altitude**: 397m

UTM- 38P, 0473721, 1467126

Land use: private house

Sensor burial material: sand and plastic bag

Other noise sources: people

Contacts: The owner of the house: Mr Mohammed Ali Sheikhan (733878581)

Other comments: We paid 6000R to the owner for the first two months (from 27th March

2009). The agreement is 3000R/month. Need to pay 12 000R on service

run.

Deployed 28th March 2009

Al Adba Habilayn (ADBA)



Site Name: Al Adba Habilayn Site Code: ADBA Network Code: Yocmal

Deployment team: EA, FR, DH, NR **Station type**: 6TD

WGS84 – **Latitude**: 13.55078°N **Longitude**: 44.84239°E **Altitude**: 705m

UTM- 38P, 0482946, 1498052

Land use: private house

Sensor burial material: sand and plastic bag

Other noise sources: people

Contacts: The owner of the house: Mr Abdul Rakeeb Todila Mahosein

(777094806)

Other comments: The GPS is on the roof in a metallic box with sand and stones, the GPS

cable is cover on the floor by rock and sand, be careful when you dig! We gave them money to buy a pipe to extend the one which is above

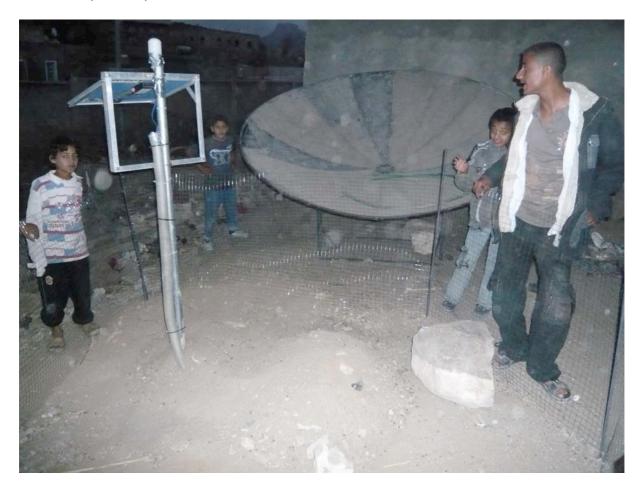
the station.

We paid 6000R to the owner for the first two months (from 29th March 2009). The agreement is 3000R/month. Need to pay 12 000R on service

run.

Deployed 29th March 2009

Ad Dala (DALA)



Site Name: Ad Dala Site Code: DALA Network Code: Youmal

Deployment team: EA, FR, DH, NR Station type: 6TD

WGS84 – Latitude: 12.734800°N **Longitude**: 44.735800°E Altitude: 1437m

UTM- 38P, 0471436, 1518410

Land use: private house, none used

Sensor burial material: sand and plastic bag Other noise sources: children, satellite dish

The owner of the house: Mr Mohammed Ahmed Shobali (02433079) **Contacts**:

We paid 8000R to the owner for the first two months (from 29th March Other comments:

2009). The agreement is 4000R/month. Need to pay 16 000R on service

After the deployment, the owner called us to talk about a problem to keep the station. The governor and Dr Ismael have resolved the

problem.

Deployed 29th March 2009

Damt - Al Midiad suburb (DAMT)



Site Name: Damt- Al Midiad Site Code: DAMT Network Code: Youmal

Deployment team: EA, FR, DH, NR **Station type**: ESP

WGS84 – Latitude: 14.087367°N Longitude : 44.682267°E Altitude: 1902m

UTM- 38P, 0465701, 1557417

Land use: private house

Sensor burial material: plinth and plastic box, sand

Other noise sources: people

Contacts: The owner of the house : Mr Mohammed Taher Adahiri Al Azharak

(711269357)

Other comments: Really dirty soil, put gloves...

We paid 8000R to the owner for the first two months (from 30th March 2009). The agreement is 4000R/month. Need to pay 12 000R on service

run.

Deployed 30th March 2009

Marais - Farathan suburb (MARA)



Site Name: MaraisSite Code : MARANetwork Code: YocmalDeployment team: EA, FR, DH, NRStation type: 6TD

WGS84 – Latitude: 13.914783°N **Longitude**: 44.743900°E **Altitude**: 2033m

UTM- 38P, 0472336, 1538317

Land use: private house, garden

Sensor burial material: subaerial deployment: basement plinth + cement

Other noise sources: people

Contacts: The owner of the house : Mr Shait Mohammed Ahammed Saleh

(712020745)

Other comments: It will be better to change the GPS cable during the service (offset and

drift after 1 hour waiting)

We paid 8000R to the owner for the first two months (from 30th March 2009). The agreement is 4000R/month. Need to pay 12 000R on service

rıın

Deployed 30th March 2009

Dabir Khira (DABIR)



Site Name: Dabir Khira Site Code: DABIR Network Code: Yocmal

Deployment team: EA, FR, DH, NR **Station type**: 6TD

WGS84 – Latitude: 15.13250°N **Longitude**: 44.26896°E **Altitude**: 2375m

UTM- 38P, 0421453, 1673111

Land use: private house, garden Sensor burial material: sand Other noise sources: people

Contacts: The owner of the house: Mr Jamil Ali Ahamed (01-643903 or

770873902)

Other comments: We paid 8000R to the owner for the first two months (from 31th March

2009). The agreement is 4000R/month. Need to pay 12 000R on service

run.

Deployed 31th March 2009

Nakeel Yisle (YSLE)



Site Name: Nakeel Yisle Site Code: YSLE Network Code: Yocmal

Deployment team: EA, FR, DH, NR **Station type**: ESP

WGS84 – Latitude: 14.938733°N Longitude: 44.281567°E Altitude: 2557m

UTM- 38P, 0422738, 1651673

Land use: private house, garden

Sensor burial material: buckets on sand and plinth **Other noise sources**: main road (Sanaa/Aden) very close.

Contacts: The owner of the house: Mr Mohammed Ali Saied (771664934)

Other comments: Noisy site close to a main road, and the sensor is not well buried (+30

cm). We paid 8000R to the owner for the first two months (from 1th April 2009). The agreement is 4000R/month. Need to pay 12 000R on

service run. Very nice people.

Deployed 1th April 2009

SHIBAM (SHIB)



Site Name: Shibam Site Code: SHIB Network Code: Youmal Deployment team: EA, FR, NR et al Station type: ESP

WGS84 – Latitude: 15.50305 °N **Longitude**: 43.90550°E **Altitude**: 2630m

UTM- 38P, 0382606, 1714267

Land use: private house, garden

Sensor burial material: buckets on sand and plinth

Other noise sources:

Contacts: The owner of the house : Dr Mohamed Aladi (733777998)

(Doctor in economy)

Other comments: No money to keep care of this site, we just need to phone before

coming Dr Aladi. Beautiful private property at the foot of a cliff. Check the battery, maybe it will be necessary to add another solar panel on

service run because of the cliff.

Deployed 2th April 2009

Al Tawilah- Bait Badi suburb (TAWI)



Site Name: Al Tawilah- Bait Badi suburb Site Code: TAWI Network Code: Yocmal

Deployment team: EA, FR, NR, I et al. **Station type**: 6TD

WGS84 – Latitude: 15.47866°N Longitude: 43.72389°E Altitude: 2333m

UTM- 38P, 0363109, 1711679

Land use: private house, garden Sensor burial material: sand

Other noise sources:

Contacts: The owner of the house: Mr Hussein Tabit Badi (777078727)

Other comments: We paid 8000R to the owner for the first two months (from 3th April

2009). The agreement is 4000R/month. Need to pay 12 000R on service

run.

Deployed 3th April 2009

Mahweet (MAWI)



Site Name: Mahweet, Beit Al Khayat suburb

Site Code: MAWI

Network Code:

Yocmal

Deployment team: EA, FR, NR, I et al. **Station type**: ESP

WGS84 – Latitude: 15.46748°N **Longitude**: 43.52317°E **Altitude**: 1875m

UTM- 38P, 0341565, 1710577

Land use: live stock

Sensor burial material: buckets on sand and plinth

Other noise sources: cows, chickens...

Contacts: The owner of the house: Mr Ibrahim Ali Al-Khayatei (733454961)

Other comments: We paid 8000R to the owner for the first two months (from 3th April

2009). The agreement is 4000R/month. Need to pay 12 000R on service

run.

Hotel available in town: Mahweet Hotel (07-404767/8/9)

Deployed 3th April 2009

Al Anid, Al Qanawis suburb (ANID)



Site Name: Al Anid Site Code: ANID Network Code: Youmal

Deployment team: EA, FR, NR **Station type**: 6TD

WGS84 – Latitude: 15.47365°N **Longitude**: 43.20478°E **Altitude**: 147m

UTM- 38P, 0307405, 1711518

Land use: private house garden Sensor burial material: sand Other noise sources: children

Contacts: The owner of the house : Mr Ali Ahmed Mohammed Al Khatib

(733029181)

Other comments: We paid 8000R to the owner for the first two months (from 4th April

2009). The agreement is 4000R/month. Need to pay 12 000R on service

run.

Deployed 4th April 2009

Al Uhaya (UAYA)



Site Name: Al Uhaya, Marat Asham suburb Site Code: UAYA Network Code: Yocmal

Deployment team: EA, FR, NR **Station type**: ESP

WGS84 – Latitude: 15.70929°N Longitude: 42.69337°E Altitude: 9m

UTM- 38P, 0252799, 1738127

Land use: private compound

Sensor burial material: buckets on sand and plinth

Other noise sources:

Contacts: The owner of the house : Mr Mohammed Mohammed Bukar

(733166571)

Other comments: We paid 8000R to the owner for the first two months (from 4th April

2009). The agreement is 4000R/month. Need to pay 12 000R on service

run.

Deployed 4th April 2009

Al Mutred, Al Zuwra suburb (ZUWA)



Site Name: Al Mutred, Al Zuwra suburb Site Code: ZUWA Network Code: Yocmal

Deployment team: EA, FR, NR Station type: 6TD

WGS84 – Latitude: 15.72752°N Longitude: 43.02184°E Altitude: 87m

UTM- 38P, 0288037, 1739789

Land use: private garden house Sensor burial material: sand

Other noise sources:

Contacts: The owner of the house : Mr Abdu Mohammed Heig Fronti

(711195024)

Other comments: We paid 8000R to the owner for the first two months (from 5th April

2009). The agreement is 4000R/month. Need to pay 12 000R on service

run.

Be careful to sleep, there is no hotel except in Mahweet or in Hodeidah. Hotel available in Hodeidah: King of Towers Hotel Tourism, Sana'a

street (207118/214139/214140).

Deployed 5th April 2009

Rusaba (RUSA)



Site Name: Rusaba Site Code: RUSA Network Code: Yocmal

Deployment team: EA, FR, NR **Station type**: 6TD

WGS84 – **Latitude**: 14.70738 °N **Longitude**: 44.35394 °E **Altitude**: 2332m

UTM- 38P, 0430448, 1626060

Land use: big compound of the future Institute of Technology

Sensor burial material: sand

Other noise sources: main road 500m

Contacts: The guardian of the future Institute: Mr Dhif Alah Djoba (777202721)

Other comments: We paid 8000R to the guardian for the first two months (from 7th April

2009). The agreement is 4000R/month. Need to pay 12 000R on service

run.

Deployed 7th April 2009

Site name: Al Hakiba Site code: HAKI Network code:

Deployment team: DK, HA **WGS84 - Latitude**: 13.12377

Instrument type: 6TD

Date deployed: 10 April 2009

Longitude: 43.87264 **Altitude**: 662

Sensor serial: 6118

Land use:

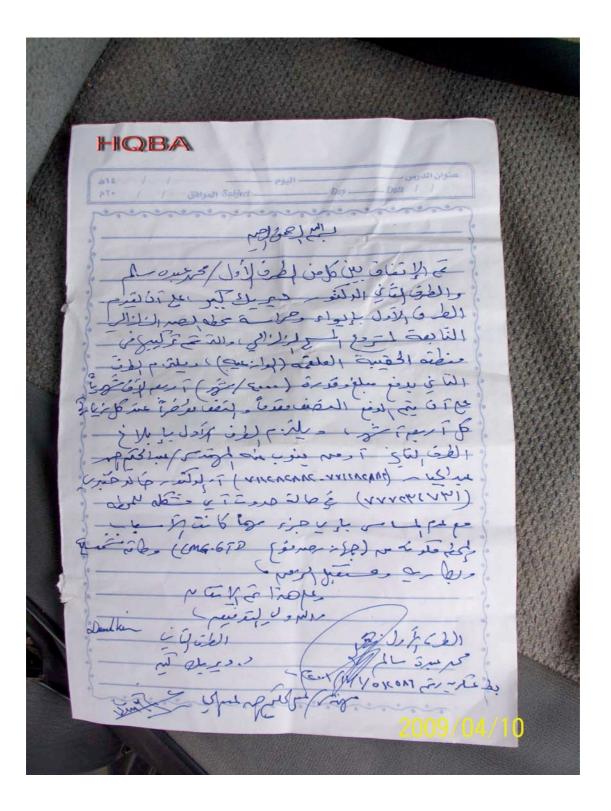
Sensor burial material: plastic bag

Other noise sources:

Contacts: Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments:





Site name: Mocha Site code: MOKA Network code:

Date deployed: 10 April 2009

Land use: residential.

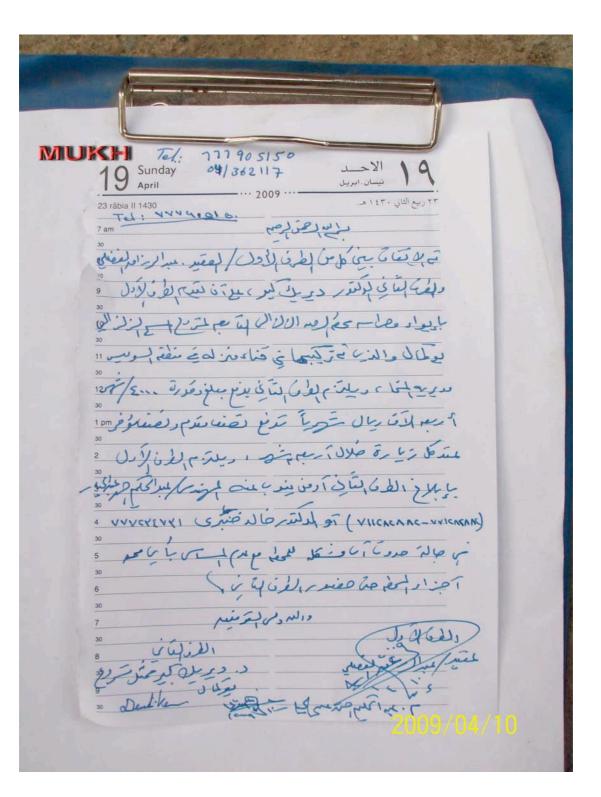
Sensor burial material: plastic bag.

Other noise sources: children, near tarmac road.

Contacts: Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments:





Site name: Khaw Kha Site code: KHAW Network code:

Deployment team: DK, HA

WGS84 - Latitude: 13.80802 **Longitude**: 43.25408 **Altitude**: 14

Instrument type: 6TD **Sensor serial**: 6192

Date deployed: 11 April 2009

Land use: residential.

Sensor burial material: plastic bag.

Other noise sources: children, on outskirts of town.

Contacts: Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: note high mass (1700) on the N component.



المراهم المحمر المعمر 4243927 الناكم المعرف المعاني بطن بورك المعادوك معلى المالك القام ا تربع ا عرب الى م به ترك ترك مي بن من بدر العانى ني الله النعل مديرة إلى متلك المسكوم مس لكا مديدة المسكوم المس مرد منال مر المناس من المن أَيْ يَعْنُ إِلَى بِلَ حَقِيًّا مِنْ وَلِي الْمِعْنُ وَالْمُعْنِينَ الْمِنْ وَلِي الْمُعْنِينَ الْمِنْ وَالْمُ عراب المرابع المل المرا المرابع المراد المراد (VIICACAAC- VUICACAAC) NIGTONA air med cillod) To felice a) le ain - (1 xx 3xxxx) = 30 des accis voisa, Elled see the first of the Lyns del (ptuy) = iope (le suly) رالهوالالترميم الطفالات しもりだっし Ja Mender of in als > . >

Site name: Sughna

Deployment team: DK, HA **WGS84 - Latitude**: 14.79705

Instrument type: 6TD

Date deployed: 11 April 2009

Site code: SUGH Network code:

Longitude: 43.44282

Sensor serial: 6065

Altitude: 248

Land use: residential, agricultural. Sensor burial material: plastic bag.

Other noise sources: children, near tarmac road.

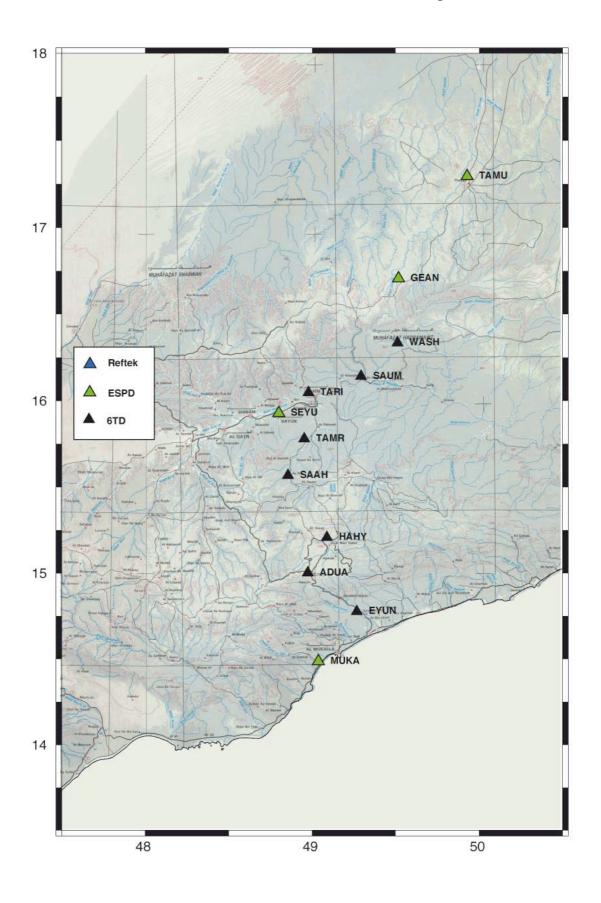
Contacts: Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: Problems with mass positions. Forced to leave station with N mass at 2400.



malestan SUKH تعلاقناع سَمْ مَلْمُونُ لِأَلْمَ مُراجِدُ لِلْكُ مُرَادِهِ مِلْ الْمُعَالِقُ لِلْمُ الْمُعَالِقُ لِلْمُ الْمُعَالِقُ الْمُعِلِقُ الْمُعَالِقُ الْمُعَالِقُ الْمُعَالِقُ الْمُعِلِقُ الْمُعَالِقُ الْمُعَالِقُ الْمُعَالِقُ الْمُعَالِقُ الْمُعَالِقُ الْمُعَالِقُ الْمُعَالِقُ الْمُعِلِقُ الْمُعِلِقُ الْمُعِلِقُ الْمُعِلِّذِي الْمُعِلِقُ الْمُعِلِقِ الْمُعِلِقِ الْمُعِلِقِ الْمُعِلِقُ الْمُعِلِقِ الْمُعِلِقُ الْمُعِلِقُ الْمُعِلِقُ الْمُعِلِقِ الْمُعِلِي الْمُعِلِقِ الْمُعِلِقِ الْمُعِلِقِ الْمُعِلِقِ الْمُعِلِقِ الْ The is a in a sing find I day ! Wife to مورد لا مال و المعلم و المال على و الله ما على معم Gps, - les mis à les CMG-6TD (3) fred it with the case is so is it is the stand Jupolop det program unicht de porque CUQ 621 Darch kin

Central PROFILE – YOCMAL SEISNET YEMEN – March April 2009



Time transportation between stations:

```
TAMU
                    1,5 hours
                   GEAN
                 1,5 hours
                   WASH
               1,5 hours
      SAUM
45 min
   TARI
 45 min
SEYU
1,5 hours
 TAMR
  1,5 hours
      SAAH
   2 hours
      HAHY
     45 min
   ADUA
       1 hour
            EYUN
        1 hour
     MUKA
```

Site name: Seyun Site code: **SEYU** Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 15.92919 **Longitude**: 48.80098 Altitude: 681 Sensor serial: 5480

Instrument type: ESPD

Date deployed: 28 March 2009

Land use: YSOC seismic vault.

Sensor burial material: subaerial and covered by a bucket within a vault.

Other noise sources: located on the outskirts of a city.

Contacts: Yemen Seismic Observatory.

Other comments: left one 6TD box, one solar panel box, one small grey misc. box in

vault.

Site name: Tarim Site code: **TARI** Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 16.04779 **Longitude**: 48.97763 Altitude: 621 Sensor serial: 6078

Instrument type: 6TD

Date deployed: 29 March 2009

Land use: residential.

Sensor burial material: subaerial and covered by a bucket within a storage room.

Other noise sources: near tarmac road.

Contacts: Ahmed Al-Kaif Aideed (nickname Ahmed Attana).

Tel: 711676588

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: battery charged via mains electricity, ask Ahmed how much we

owe him for electricity.

GPS on the roof.

Site located next to café with friendly owner and nice soft drinks.

Ahmed gave us tea during the deployment.

Site name: Al Saum Site code: SAUM Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 16.14145 Altitude: 579 **Longitude**: 49.29332 Sensor serial: 6023

Instrument type: 6TD

Date deployed: 29 March 2009

Land use: agricultural office / family planning center.

Sensor burial material: subaerial covered by a bucket in storage room.

Other noise sources: near town.

Contacts: Hamis Amer Sadaan, director of the center.

Tel: 777470634

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: solar panel and GPS on the roof.

Site name: Wa'asha Site code: WASH Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 16.33600 **Longitude**: 49.51145 **Altitude**: 834

Instrument type: 6TD Sensor serial: 6121 Date deployed: 30 March 2009

Land use: police / military checkpoint. Sensor burial material: plastic bag. Other noise sources: near tarmac road.

Contacts: Shaif Talib, Chief of police for Wa'asha district. No telephone. Agreed to pay R4000 per month.

Other comments: Shaif gave us lunch and is very friendly and talkative.

Visited station a few days after deployment and all working well.

Site name: Ge'ann Site code: GEAN Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 16.70661 **Longitude**: 49.51774 **Altitude**: 972

Instrument type: ESPD Sensor serial: 4849
Date deployed: 31 March 2009

Land use: police / military checkpoint.

Sensor burial material: slab and plastic bag. **Other noise sources**: near tarmac road.

Contacts: Shaif Talib (same as Wa'asha), Saulan Al Habary. No telephone. Agreed to pay R4000 per month, paid R8000 to Saulan Al Habary.

Other comments: breakout box cable ports labelled incorrectly, power is labelled

data and data is labelled power.

Shaif gave us lunch during the deployment.

Checked the station a few days after deployment, and after very heavy rain – the bucket was full of water but station working fine. I punctured a hole in the base of the bucket to remove water.

Site name: Tamud Site code: TAMU Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 17.29478 Longitude: 49.92855 Altitude: 667 Instrument type: ESPD Sensor serial: 5432

Instrument type: ESPD Date deployed: 1 April 2009

Land use: government office.

Sensor burial material: slab and plastic bag. **Other noise sources**: located on outskirts of town.

Contacts: Salem Al Bin Shahbel, head of local government.

Tel: 777272277

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: left 2 ESP boxes in storeroom in the government office.

Salem invited us to lunch during permissioning and is very

friendly.

Site name: Tamran Site code: TAMR Network code:

 $\textbf{Deployment team} \colon DK,\, MA,\, S$

WGS84 - Latitude: 15.78058 **Longitude**: 48.95215 **Altitude**: 687

Instrument type: 6TD Sensor serial: 6017 Date deployed: 2 April 2009

Land use: residential compound. Sensor burial material: plastic bag.

Other noise sources: children, located within town.

Contacts: Abdullah Al Jabri, owner of next door house.

Tel: 713592959

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: Abdullah speaks very good English and went to Birmingham

University in England. He works at Nexen Oil as an

Environmental manager and knows a fair amount about geology. He gave us loads of tea during deployment and is very friendly.

Soil is very sandy and soft so check mass positions closely. We struggled to get the E mass lower than 1500 at deployment.

Site name: Mukalla Site code: MUKA Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 14.48724 **Longitude**: 49.03779 **Altitude**: 38

Instrument type: ESPD Sensor serial: 4706 Date deployed: 4 April 2009

Land use: YSOC vault in GSMRB compound.

Sensor burial material: subaerial covered by bucket in vault.

Other noise sources: located on outskirts of Mukalla, ~1km from sea.

Contacts: YSOC and GSMRB

Other comments:

Site name: Al Aduas Site code: ADUA Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 15.00210 **Longitude**: 48.97391 **Altitude**: 1383

Instrument type: 6TD Sensor serial: 6167 Date deployed: 5 April 2009

Land use: police / military checkpoint.

Sensor burial material: subaerial covered by bucket and many rocks / stones

Other noise sources: next two major road junction.

Contacts: Hameed Hussein Abdul Moghiny, commander of the military in Al Aduas

Tel: 711636694, Fax: 053894888

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: ground is very hard forcing a subaerial deployment. Struggled to

level the sensor and left with E mass at 2400. I visited the site a few days after deployment to check if masses settled but they had not. I tried a second time to re-level sensor but did not succeed.

Site name: El Eyun Site code: EYUN Network code:

Instrument type: 6TD Sensor serial: 6070 Date deployed: 5 April 2009

Land use: residential.

Sensor burial material: plastic bag. **Other noise sources**: children, animals.

Contacts: Ahmed Salmin Abdin, owner of house, no telephone number. Agreed to pay R5000 per month, paid R10000 at deployment.

Other comments: Ahmed gave us water and tea during deployment.



Site name: Al Hahyy Site code: HAHY Network code:

Deployment team: DK, MA, S

WGS84 - Latitude: 15.20831 **Longitude**: 49.08871 **Altitude**: 1084

Instrument type: 6TD Sensor serial: 6099 Date deployed: 6 April 2009

Land use: residential.

Sensor burial material: subaerial covered by bucket. **Other noise sources**: children, located in town.

Contacts: Omar Aboud, owner of house.

Tel: 713272628

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: Omar was in Saudi Arabia during deployment but he had given his

cousin permission to enter his compound and deploy the station.

We paid Omar's cousin the R8000. GPS and solar panel are on the roof.

Site name: AL-Hask (Sa'ah)

Deployment team: HA

WGS84 - Latitude: 15.56765

Instrument type: 6TD

Date deployed: 07 June 2009

Site code: SAAH Network code:

Longitude: 48.85577

Sensor serial: T6211

Altitude: 780 m

Land use: In front of house.

Sensor burial material: plastic bag & soft sand. Other noise sources: Children, wind and animals.

Contacts: Salem Saed Ahmed Mosalem - 712654698.

Other comments: 4000 RY per month/ Paid RY4000 for June 2009 at deployment.

The instrument should be re-checked for the mass adjustment and to

be replaced if the drift of the mass still high.

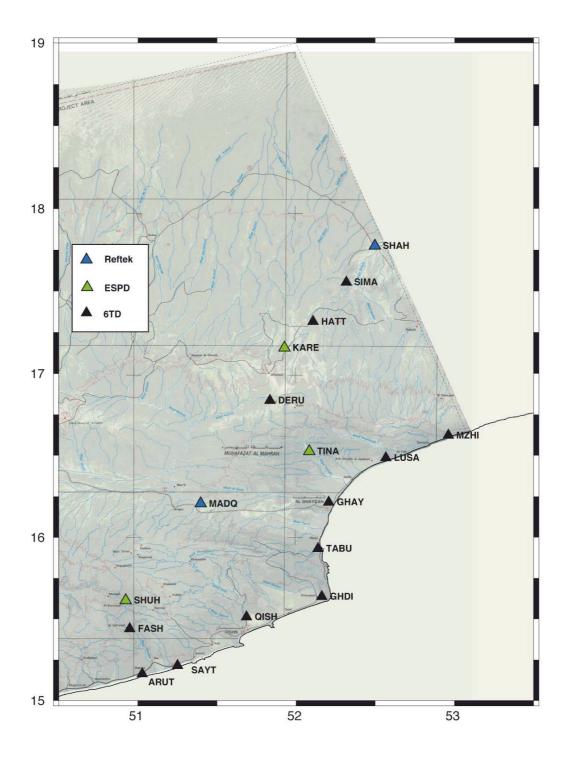
Erreur! Signet non défini.





(1632) ist Themay Ochobico for hear Just just of Filme is 21,62 الفي بادل بارسادها - عم رس ساردها الدول المرى وسي المحافية في مع المان الم مَدَل إِفْكَ إِلَى . ويلم - ويلم - والأن الله والمؤول من والمراح والمراح والمراح والمراح والمراح والمراح والمر ですられずられるのかのあれてありとい · Viguing tracial of CNS Les Doi i Oby ix, holy Gir an 15/2 visory is 1 xwg 6 rein UCYETY I UNICHEMI WED WY TEL MED TO 2009/06/

Eastern PROFILE – YOCMAL SEISNET YEMEN – March April 2009



Time transportation between stations:

```
SHAH
                                                   35 min
                                             SIMA
                                           30 min
                                       HATT
                                     25 min
                                  KARE
                                30 min
                               DERU
                                  50 min
                                                                 MZHI
                                                           50 min
                                      TINA
                                                     LUSA
                                      40 min
                                                 55 min
                  MADQ 3 hours (track)
                                          GHAY
                                          30 min
                                        TABU
                                       50 min
                                         GHDI +10 min(from the main road)
   SHUH
                         +30 min
QISH 30 min
2 hours
    FASH
                      50 min
        3,5 hours
              SAYT
       30-40 min
     ARUT
```

Site name: Deru Site code: DERU

Instrument type: 6TD Sensor serial: T6031 Date deployed: 27 March 2009

Altitude: 51.83442 **Altitude**: 877 m

Network code:

Land use: Pebbles and sand. Sensor burial material: soft sand.

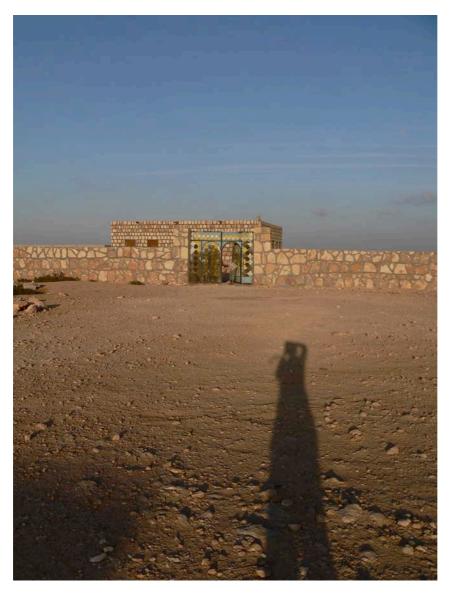
Other noise sources: children, wind, few goat

Contacts: Abdul Rageeb

Other comments: 4000 RY per month







Site name: Tabut

Deployment team: CB, HA, SL **WGS84 - Latitude**: 15.93221

Instrument type: 6TD

Date deployed: 28 March 2009

Site code: TABU Network code:

Longitude: 52.13826

Sensor serial: 6351

Altitude: 20 m

Land use: soil and mud

Sensor burial material: soil and sand

Other noise sources: goat, children, generator at 10 m (non frequently used)

Contacts:

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: site located in a garden. Kind people. They offered us tea, and cold drink.



Site name: Tin Haleen

Deployment team: CB, HA, SL

WGS84 - Latitude: 16.52606 Instrument type: ESPD

Date deployed: 28 March 2009

Site code: TINA

Longitude: 52.08226

Sensor serial: T35478

Network code:

Altitude: 202 m

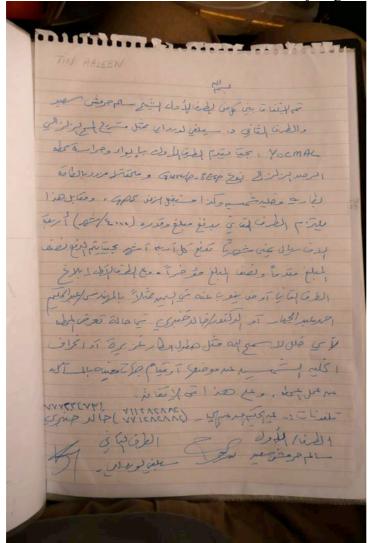
Land use: sand – concrete plinth Sensor burial material: soft sand

Other noise sources: children, goats, camels

Contacts:

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: the hole of the sensor is very large and deep (at least 1 m).







Site name: Al Ghaydah

Deployment team: CB, HA, SL

WGS84 - Latitude: 16.21572 Instrument type: 6TD

Date deployed: 28 March 2009

Site code: GHAY **Network code**:

Longitude: 52.020533

Sensor serial: 6221

Altitude: 22 m

Land use: behind a house

Sensor burial material: sand and small pebbles **Other noise sources**: children and animals

Contacts:

Agreed to pay R5000 per month. We paid 2 months

Other comments:





Site name: Madraq

Deployment team: SL, CB, HA **WGS84 - Latitude:** 16.20683

Instrument type: Reftek

Date deployed: 29 March 2009

Site code: MADQ Network code:

Longitude: 51.39719

Sensor serial: T4Q15

Altitude: 346 m

Land use: behind an house in a village. Sensor burial material: sand and mud

Other noise sources: near houses (children, goat), wind

Contacts: Agreed to pay R4000 per month, paid R8000 to the owner (see contract)

Other comments: A lot of children, kind people they gave us lunch.





A view from the site toward the southeast

Site name: Kareed

Deployment team: CB, HA, SL **WGS84 - Latitude**: 17.15660

Instrument type: ESPD

Date deployed: 30 March 2009

Site code: KARE **Network code**:

Longitude: 51.92594

Sensor serial: 34711

Altitude: 857 m

Land use: in the area of the camp of the keeper

Sensor burial material: plinth concrete and plastic bag

Other noise sources: only few goats and camels

Contacts:

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments:





Site name: Hat

 $\textbf{Deployment team} \colon HA,\, CB,\, SL$

WGS84 - Latitude: 17.31612

Instrument type: 6TD

Date deployed: 30 March 2009

Site code: HATT **Network code**:

Longitude: 52.10666

Sensor serial: 6021

Altitude: 771m

Land use: in an area of a house . **Sensor burial material**: plastic bag.

Other noise sources: goat, people leaving there. Very windy place

Contacts: Ali Salim Eisa - 712252757

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: Very kind people, they offer us shawl, lunch.





Site name: Shahen Site code: SHAH Network code:

Land use: inside a garden of house Sensor burial material: mud

Date deployed: 31 March 2009

Other noise sources: goat, children, works of the man in the garden.

Contacts: Ahmid

Agreed to pay 4000 RY per month, Paid 8000 RY

Other comments:



SHAHEN 711598322 لبنة رعمروس iel, with the party Vigae of mertina ردة بدلندرة سيفيلونداب عن دريل (زاكي سين سوم روي الأول ما يعد اد وجرام كالم يوني letter is missing in Good into the Com و عِرَ : لا عَارِيهِ وَعِلْسَمِ تَمْ سَمْ ، بليز مِ لا أَ कित्रां के के हिंग हैं। हैं के के के किया · je (po à vi d'in légérée le les tens وسر ، ولا كالما يون إلى المان is wife in the sound of the sou ries gobin c cicely de se v T Emp alp Misses - 1m from -24001





Site name: Simar

Deployment team: HA, CB, SL

WGS84 - Latitude: 17.55549

Instrument type: 6TD

Date deployed: 31 March 2009

Site code: SIMA Network code:

Longitude: 52.31630

Sensor serial: 6158

Altitude: 655

Land use: bedouin camp.

Sensor burial material: buried by sand and pebbles

Other noise sources: camels, goat

Contacts: Sheikh Kilowish Zabolon (we pay to him)

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: We arrive there with the chief of the Police of Shahen: Mohammed

Awadh Zabalon Phone: 77 02 90 711



SIMAR 712533298 الع ليمن لهم في نيف بن بي المال المالية مالم ريسون الم الثَّايُ بِلاَمْرَة مِي اللَّهِ لِم رواي ، على أَنْ يَسْمَ اللَّهِ الْأُولُ لِإِنْ إِلَّا لِللَّهِ اللَّهِ اللَّهُ اللَّهِ الللَّالِي الللَّهِ الللَّهِ اللَّا اللَّهِ الللَّلْمِي اللَّهِ الللَّهِ اللَّهِ الللَّلْمِي اللَّا وعدا را والمعالم المعالم المعالم الله عم وكليل في مناء ما دى & 3,4, & as Tiesaid inicial en Estate 00 f 5 W, 6. b) gx 7 JS, Gel 10. 5 THE ولينها إواكم تو المعام مؤسسة في مو آو آو المعالية الم They air in wish inis of respose vine and En Sie Sie Ale just - when the · NANCHENEL JE AMENENCE JE MICHENNE Certifore Sino or wed! while Gell 13. Loray

Site name: Wadi Hamroun near Qishn Site code: QISH Network code:

Deployment team: SL, HA, CB

WGS84 - Latitude: 15.51360 **Longitude**: 51.68612 **Altitude**: 63 m

Instrument type: 6TD Sensor serial: 6070

Date deployed: 1st April 2009

Land use: behind a house

Sensor burial material: plastic bag. **Other noise sources**: children, animals.

Contacts:

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: They gave us water and tea during deployment.



Dist - Wade Hamroon 711 766 819 المي العن الحم تهديقاق بن كل من لطري له ول/ سيسالم شعراء مربطف بتأي درسيلفي لرمان عن تنسي الطيف لأول مد دواء وجراب عطم الموسرا لرزلزالي النا مع المروح المرززالي م الله يم و ليك في اب مزله العائن في وآد به مغوان ملك المع بي في مرفوملخ وقداة (١٠٠٠ مرال عن المحمد) أعه المن سال حق عَر لمن منه عَارِن إلى النفاعة ما الم 3.60/ -5 det 5, 4 - in stree 76 12 % lieuls is is is it is able on I was selle gry de 5 1 (us abst dé - sí voi at aux alpé of usher pushe wings air wie is in a Color 2 T ANICHONACE NICHOLANO) WIFTE ME VIET NE WIND · (NNOTENTI estrail & Mising - w/621 4/621

Site name: Ghdifut Site code: GHDI Network code:

Deployment team: CB, SL, HA

WGS84 - Latitude: 15.63811 Longitude: 52.16173 Altitude: 29 m Instrument type: 6TD Sensor serial: 6042

Date deployed: 1 April 2009

Land use: Near an house, in the garden of the owner.

Sensor burial material: buried by mud

Other noise sources: children, located in house.

Contacts:

Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: Be careful to access to the place. One of the road is sandy. Follow the indication of the road with the GPS.



The view is toward the north.

We finished at night, so we didn't take photos. The site is to the left of the house. The town is to the right.

ور مقوق GHDIFUT Doc suppose / Dixip is bis riexe (TwiTch Used jelens of Wall الله على المواد والمراسة المعلقة من للوسال الما الله جواني درور وي ما بايد الح الله علي الله Copy of (5/2-) 5/20 prigul (iei) The cien jest of the the しい、方ではまずいるがはできる nicio Gest & Will En 1 John Gables Comprison John John John popularen stiso Took Cross (percept onle , SelsoT 2,46001 18 J. Web) 5/ S. Leray Dr.

Site name: Lusac Site code: LUSA Network code:

 $\textbf{Deployment team} \hbox{:} \ CB, \ SL, \ HA$

WGS84 - Latitude: 16.48624 **Longitude**: 52.56719 **Altitude**: 48 m

Instrument type: 6TD Sensor serial: 6186

Date deployed: 2 April 2009

Land use: behind a house with a wife and one boy 3 years old

Sensor burial material: buried by compacted sand **Other noise sources**: sea waves – 200m to a tarmac road

Contacts: Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments: The owner is director of the water ressources of the al Ghayddah area



Pano from the west (left) to east (right) Behind the site.



Photo toward the south

LUSAC' re168/22 and This time / light belong our own a Chiling the way be the services Bit refer to be the safe and the at se les (chighto) (in no, les indials, diff The gent of ill The confiers the (ines project & 5 04 61/es? (3/E-) go per Tyle of the goed of the air-inco, 1346 by ix. 1. 1. (ill) (MICHENE + VIICHENNE) - W/ment for July sight Philip ete pin (171279 VVV) ENEGRO Non Emporter See 1 18 20 000 · Evenly, el's الإذكا # S. Leray Dr. In when for in

Site name: Mazhifut

 $\textbf{Deployment team} \colon CB,\, SL,\, HA$

WGS84 - Latitude: 16.62363

Instrument type: 6TD Date deployed: 2 April 2009 Site code: MZHI Network code:

Longitude: 52.96136 **Altitude**: 309 m

Sensor serial: 6107

Land use: area belonging to the sheihk Sensor burial material: plastic bag. Other noise sources: honey people

Contacts: Agreed to pay R4000 per month, paid R8000 at deployment.

Other comments:





Mahzifort/711979925 metalian تي يوتمام بين كل وي يول كالم الم الم الم ويوله عبد الم وي مراق ما مرا دورات الما دورات المعالية المراد والمراد والمراد المراد والمراد وا police for any (mangifust) (Die) File fut a win "一年少少是以来了(全人人一) 可知如此其中有人的 عرانا المن الما المعانة في المعانة في المعانة والمعانة وا (mylais in in ill in believe Jos, ill cole cole سراكم مدلي - ترليكور افي درفيري ما برع كهاله :-L'ESPE DION VYCKENKI ST VYICKENKE ST VIICKENKE · Nest Bed. دالله رلم لوتوسيم 04621 -: 1/2 (2) 5 mlow born in. L Carly who where / in S. lergy Dr.

Site name: Sayhut Site code: SAYT Network code:

Deployment team: HA

WGS84 - Latitude: 15.21480 Longitude: 51.25044 Altitude: 57 m

Sensor serial: T6146 **Instrument type: 6TD**

Date deployed: 03 June 2009

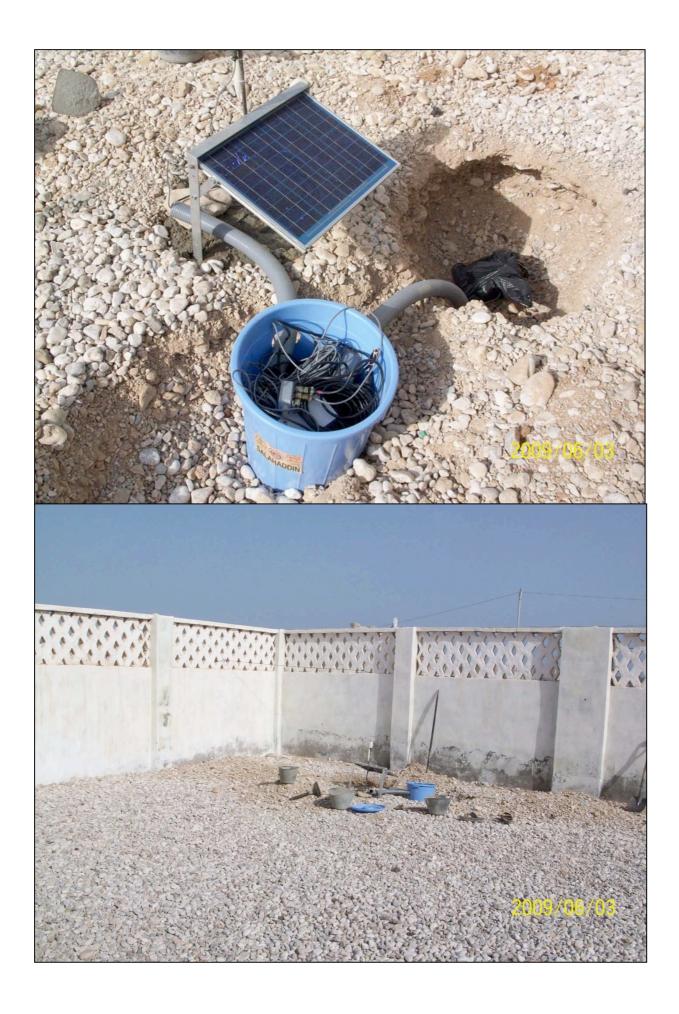
Land use: In house fence.

Sensor burial material: soft sand. Other noise sources: children

Contacts: Mohammed Ali Said Al-Zuaidi (G.D. of Sayhut Directorate - 711786651).



Other comments: 4000 RY per month/ Paid RY4000 for June 2009 at deployment.



ال در (Yocmal) ما الد نيوم بطف لأول رصد النابع المتروع و كملوثه مه محمه م نيرس تحمام عدول أن مشكر للحي وومل المراد Site name: Shuhaik Site code: SHUH Network code:

Deployment team: HA

WGS84 - Latitude: 15.61454 Longitude: 50.92304 Altitude: 260 m

Instrument type: 3ESP Sensor serial: 5333

Date deployed: 03 June 2009

Land use: Area belonging to the village people.

Sensor burial material: plastic bag & soft sand.

Other noise sources: Goats & water pumps (at ~300 m)

Contacts: Salmeen Ghaithan Suilem (Sheikh of the village - 731202991). Other comments: 4000 RY per month/ Paid RY4000 for June 2009 at deployment.

The area may be inaccessible during the rainy days because the road to the area is running along the Wadi from Masillah .







your on and took of my in body Myspriga prigorialies, de ques برول با بواء عم رصر ال زال با سال الح بول ل Just 1 ESP 80 : Sp malif, (Youman) g/2m Blæghe pin i Wielf it , « D, m) というとり シグトルがははいれったまりしられたい per Chart and the bold have by circle of plasi (MICACARCA TO VVICACARD É LES GAL que judin Thenes (IM3X) . Jed is citly (& go leads pricial) si Try li do de l'a fine

Site name: Fashawn Site code: FASH Network code:

Deployment team: HA

WGS84 - Latitude: 15.44133 Longitude: 50.94813 Altitude: 143 m

Instrument type: 6TD Sensor serial: T6037

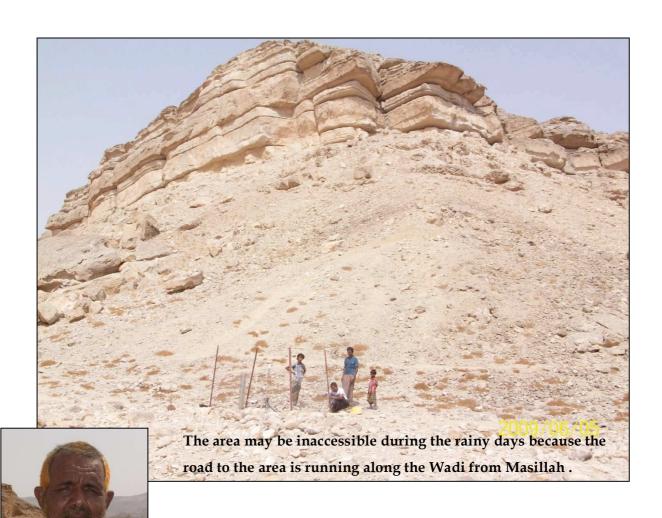
Date deployed: 04 June 2009

Land use: Unused area near the sheikh tents. Sensor burial material: plastic bag & soft sand.

Other noise sources: Animals.

Contacts: Sheikh Hammad Ali Nabhun (Sheikh of Al-Qalana'ah).

Other comments: 4000 RY per month/ Paid RY4000 for June 2009 at deployment.







/ Subject un Exist in de in China للتج الزالي لحدة سام إسدادة Siege en jag belge des Site name: Ariut Site code: ARUT Network code:

Deployment team: HA

WGS84 - Latitude: 15.16411 Longitude: 51.02686 Altitude: 20 m

Instrument type: 6TD Sensor serial: T6145

Date deployed: 05 June 2009

Land use: Unused Land.

Sensor burial material: plastic bag & soft sand. Other noise sources: Children, wind and animals.

Contacts: Mubarak Musbeh Mubarak Hamdoun - 712232196.

Other comments: 4000 RY per month/ Paid RY4000 for June 2009 at deployment.



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SERVICE 1 REPORT

Service Team: Francis Lucazeau (IPGP), Christel Tiberi (Montpellier), Hakim Ahmed (YSN)

Total days on the field:10 days

Days out because internal flights: 2-3 days

Number of station served: 34 Re-installation: 1 (GHAY) De-installation: 2 (HAKI, MZHI)

Sensors taken out: 6103 (TAWI, bad signal), 6145 (ARUT, bad signal)

Extra sensor: 6118 (HAKI)

GPS broken: 2738 (YSLE) 2863 (HAKI)

Regulator broken: 2892 (TAWI)

TOTAL amount of DATA: 55.4 Gb

Notes:

The western profile is ok to be serviced in 6 days. The roads are good and there are many places to stay. There could be troubles near Dameet for occidental people.

The eastern profile is the toughest... 4 days are not enough!! Count on at least 7 days because the stations in Ouadi Massiliah are the worst to service, and we have to stay in Al-Ghaydah.

We spent more than 6600 euros for this service (including the Socotra and Central profile ones).

There are ATM machines in Al-Ghaydah, Sanaa, Taiz, Al-Hodeidah.

Check your intern flights if ever...

The drivers were paid 100 USD per day, except for the longest trip (Aden-Al Ghaydah, Al Ghaydah-Sanaa:150 USD per day).

Stations in red are those for which we had problems (13).

For the next service:

Don't forget to bring new survival blankets.

Bring scarf to women in HATT station

Bring present for KARE station (they offered us a living lamb).

STATIONS REPORT

DABI

05/07/09 2.17 Gb

16000YR paid for 4 months

GPS ok

Flush all because lost connection with the station at one moment

YSLE

05/07/09 1.07 Gb

16000YR paid for 4 months

GPS 2738 out since 05/04/09 15:24:30 - REPLACED by 3123 o/s ok

RUSA

05/07/09 2.2 Gb

16000YR paid for 4 months

GPS ok

DKUM

06/07/09 2.3 Gb

12000YR paid for 4 months

GPS ok

Latitude badly taken for the deployment.

HOTA

06/07/09 2.7 Gb

12000YR paid for 4 months + 2000YR for a new fence +1000YR for menwork GPS ok

Goats all around, dustbin broken, flush two times.

ADEN

06/07/09 1.9 Gb

No guard

We added a polyester box around the sensor.

SHAH

08/07/09 2.1 Gb

16000YR paid for 4 months

GPS ok

Signal long period for horizontal components

SIMA

08/07/09 1.3 Gb

16000YR paid for 4 months

GPS ok

HATT

08/07/09 2.0 Gb

16000YR paid for 4 months

GPS ok

They gave us scarf again.

KARE

08/07/09 1.8 Gb

16000YR paid for 4 months

GPS ok

They gave us a lamb.

DERU

08/07/09 1.9Gb

16000YR paid for 4 months

GPS ok

TINA

08/07/09 2.4 Gb

16000YR paid for 4 months + 2000YR for new fence (camel destroyed it)

GPS ok

SHUH

09/07/09 0.7 Gb

16000YR paid for 4 months

GPS ok

FASH

09/07/09 0.8 Gb

16000YR paid for 4 months

GPS ok but first line was "no GPS message". o/s drift ok.

ARUT

09/07/09 0.8 Gb

16000YR paid for 4 months

GPS ok

Sensor changed because bad signal. Old=6145, new=6119 BUT NO FLUSH AVAILABLE!

Downloading the next data will take 2 days with laptop.

SAYT

09/07/09 0.8 Gb

16000YR paid for 4 months

GPS ok, but first line of text stream wrong.

MADQ

10/07/09 0.06 Gb

16000YR paid for 4 months

GPS ok

Station not dumping on old card. Seems ok for the new card.

TABU 10/07/09 2.4 Gb 16000YR paid for 4 months GPS ok

QISH 10/07/09 1.9 Gb 16000YR paid for 4 months GPS ok

GHDI

11/07/09 0.4 Gb

16000YR paid for 4 months

GPS ok

No battery power (2.15V). No explanation... So battery recharged, SP changed, regulator changed (old=2371, new=from MAZI)

LUSA 11/07/09 1.6 Gb 16000YR paid for 4 months GPS ok

MZHI

11/07/09 1.0 Gb

Nothing paid to the guard because the site is destroyed. STATION REMOVED SP broken, but everything seems ok. Sensor 6107.

GHAY

11/07/09 1.1 Gb

Nothing paid to the guard because SP broken since the beginning 18000YR paid for the fence and the new guard (4 months).

RE-INSTALLATION of the station near the check point. Same sensor and GPS.

Contract made with the chief of the check point + governor Al Ghaydah and Dr. Ismael.

SANA 12/07/09 2.9 Gb No guard GPS ok

SHIB

13/07/09 2.2 Gb

No guard

GPS ok

Station in the "garden"... be carefull of the possible tilting caused by water.

TAWI

13/07/09 0.1 Gb

16000YR paid for 4 months + 1000YR for manwork

regulator 2892 broken, changed for 2897.

Old sensor: 6103 (bad components) new sensor: 6107

MAWI

13/07/09 1.9 Gb

16000YR paid for 4 months

GPS ok

Water penetration through pipe. We cleaned and bowed the pipe.

ANID

13/07/09 2.3 Gb

16000YR paid for 4 months (guard bothered by the police, but Nagyb phoned) GPS ok

UAYA

14/07/09 0.2 Gb

16000YR paid for 4 months

GPS ok

Solar panel VERY dusty. Battery 11.9 No data....regulator ok. Station reset.

ZUWA

14/07/09 2.4 Gb

16000YR paid for 4 months

GPS ok

SUGH

14/07/09 2.1 Gb

16000YR paid for 4 months

GPS ok

KHAW

14/07/09 2.2 Gb

16000YR paid for 4 months + 4000YR for guard who went to jail

GPS ok

North component out. We re-leveled and let it. But NS out.

MOKA

15/07/09 2.2 Gb

16000YR paid for 4 months

GPS ok.

Solar panel very dusty (16V before cleaning, 18V after)

HAKI

15/07/09 2.0 Gb 16000YR paid for 4 months GPS 2863 out since the 14/07/09 (last .fix). No spare, STATION REMOVED