

**Station GPS permanente**

IPG Paris

DGF Uchile

UNAP Iquique

Site Name : <b>UAP _ Iquique</b>	Author : <b>Ruegg / deChabaliier</b>
Site Code : <b>UAPE</b>	date installation: <b>2005 _ 05 _ 21</b>
Coordinates : UAPE : -70.14126067    -20.24300048    56.155	

**DESCRIPTION**

Permanent GPS station IPGParis, DGF, UNAP Chile 1st region, city of Iquique, Universidad Arturo Prat. Departamento de Fisica
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**GEOLOGICAL SITUATION**

Building constructed on SAND Bedrock Type : ) → some meters of SAND over IGNEOUS bed rock
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**ACCESS**

Universidad Arturo Prat (UNAP) , Departamento de Fisica Avenida Arturo Prat N° 2120, Iquique, North Chili 1 <sup>st</sup> region
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**PRACTICAL INFORMATIONS**

state property	<b>YES</b>	<b>NO</b>	University Nacional Arturo Prat (UNAP)
private property	<b>YES</b>	<b>NO</b>	
access restricted	<b>YES</b>	<b>NO</b>	University working hours
telephone nearby	<b>YES</b>	<b>NO</b>	
Electric power nearby	<b>YES</b>	<b>NO</b>	
equipment storage available	<b>YES</b>	<b>NO</b>	
possibility of leaving the equipment without watching	<b>YES</b>	<b>NO</b>	
possibility of having the equipment watched over	<b>YES</b>	<b>NO</b>	

person to contact	<b>YES</b>	<b>NO</b>	Prof. Manuel Olcay → 84663240 (cel.), (57) 310716 (57) 394369, <i>molcay@unap.cl</i>
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### Historic

**IQQ0:** located on the top of the department of technology: used during the first two campaigns in 1991 and 1992.

**UAP0:** permanent station installed on the top of the Chemical Depart. between 1995.0 and 1999.7

**UAPF:** permanent station installed on the top of the Physical Depart. between 1997.7 and 2005.1  
The location was changed in May 2005, because a mask due to a new building.

**UAPE:** permanent station installed on the top of the new Physical Depart. since June 2005  
→ new receptor Ashtech ZX, old chokering antenna S/N 700936-11492

*Other points :*

**UAP1:** Tied point located on the ground pavement between the of Chemical building and the Physical one.

**UAPB:** Tied point located on the top of the University Library

**IQQE :** permanent station installed by the Bevis group in a military installation at the South of the Iquique city.  
IGM leveled from the tide gauge at the Iquique SHOA (Navy Hydrographic Office) since 2002.0  
gps@soest.hawaii.edu

### COORDINATES INFORMATION

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UAP      Coord. geocentriques :
(A4, 1x, F12.3, 1x, F12.3, 1x, F12.3, 3 (1x, F7.3))
PXYZ  1 UAP0  2033652.396 -5630614.922 -2192992.400   0.001   0.001   0.001
PXYZ  1 UAPF  2033687.884 -5630604.981 -2192975.679   1.000   1.000   1.000
PXYZ  1 UAPE 2033673.727 -5630627.168 -2192992.380   1.000   1.000   1.000
PXYZ  1 UAPB  2033755.743 -5630559.864 -2193075.077   1.000   1.000   1.000
PXYZ  1 UAP1  2033669.971 -5630602.180 -2192993.400   1.000   1.000   1.000
PXYZ  1 IQ00  2033649.531 -5630650.891 -2192908.155   1.000   1.000   1.000
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UAP_cont coordonnees geographiques
(1x, A4, 2 (F15.8), 34x, F10.3)
UAP0  -70.14141192  -20.24320028  -70  8  29.0829  -20  14  35.5210  44.057
UAPF  -70.14105851  -20.24319314  -70  8  27.8106  -20  14  35.4953  46.142
UAPE -70.14126067  -20.24300048  -70  8  28.5384  -20  14  34.8017  56.155
UAPB  -70.14030202  -20.24395269  -70  8  25.0873  -20  14  38.2297  56.995
UAP1  -70.14121167  -20.24322716  -70  8  28.3620  -20  14  35.6178  38.789
IQ00  -70.14155465  -20.24238363  -70  8  29.5967  -20  14  32.5811  45.736
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UAP_cont coordonnees locales
(1x, A4, 3 (5x, F10.4))
UAP0      0.000      0.000      0.000
UAPF     36.927      0.790      2.084
UAPE     15.804     22.119     12.098
UAPB    115.969    -83.298     12.936
UAP1     20.923     -2.975     -5.269
IQ00    -14.913     90.410      1.678

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→ Top of the Physical Department (UNAP) building





Antena :

Sheet log type IGS : UAPE \_ Site Information Form \_ International GPS Service for Geodynamics

0. Form

Prepared by (full name) : J.C. Ruegg IPG Paris  
Date Prepared : 15 OCT 2007 modified by J.C. Ruegg from older sheet log from 24/12/02 ( uapf\_site.log)  
Report Type : UPDATE

1. Site Identification of the GPS Monument

Site Name : Universidad Arturo Prat, Iquique \_ Tracking Station  
Four Character ID : UAPF  
Monument Inscription :  
IERS DOMES Number :  
CDP Number : (XXXX)  
Date Installed : 21-MAY-2005 in replacement of older UAPF point previously installed on 20-SEP-1999

Geologic Characteristic : (BEDROCK/CLAY/CONGLOMERATE/GRAVEL/SAND/etc) → building on SAND  
Bedrock Type : (IGNEOUS/METAMORPHIC/SEDIMENTARY) → some meters of SAND over IGNEOUS bed rock  
Bedrock Condition : (FRESH/JOINTED/WEATHERED)  
Fracture Spacing : (1-10 cm/10-50 cm/50-200 cm/over 200 cm)  
Notes : (multiple lines)  
Additional Information : Geological Province: Andean Cordillera \_ Coastal scarp  
: Local Geology: The top layer of soil from  
: Clay below the top layer is a rather stable compact material.  
: Geological information  
: Program: Catalogue of Site Information", UAPF

2. Site Location Information

City or Town : IQUIQUE  
Country : Chile  
Tectonic Plate : South American  
Approximate Position

X coordinate (m)	: 2033673.727	Latitude (deg)	: -20.24320
Y coordinate (m)	: -5630627.168	Longitude (deg)	: -70.141415
Z coordinate (m)	: -2192992.380	Elevation (m)	: 44.48

PXYZ 1 UAPF 2033687.884 -5630604.981 -2192975.679 1.000 1.000 1.000  
PXYZ 1 UAPE 2033673.727 -5630627.168 -2192992.380 1.000 1.000 1.000

Additional Information : Latitude, Longitude and Elevation derived from J.C. Ruegg, IPGParis  
: Class B Station Coordinates at Epoch 1997.0",  
: The site is on the roof of the building of Physics, within the Universidad  
: Arturo Prat, Iquique  
: Site information from J.C. Ruegg, IPG P / Jaime Campos, DGF

3. GPS Receiver Information

3.1 Receiver Type : Ashtech Z-12 ----→ point named UAPF  
Serial Number : s/n 700510B02 366  
Firmware Version : xxx  
Date Installed : 21-SEP-1999  
Date Removed : May 2005 :  
Additional Information : (multiple lines)

3.2 Receiver Type : Ashtech ZX  
Serial Number : xxxx  
Firmware Version : xxxx  
Date Installed : 21-MAY-2005  
Date Removed :

Historical Note 1 : receptor and antenna previously installed on UAP0 (top of Dept of Chemistry)  
: were moved to the point UAPF (top of the Dept of Physics) on 20-SEP-1999  
: by Jean-Bernard de Chabaliere (IPG Paris),  
: In May 21, 2005 the antenna was moved on the new Physical building by  
: Jean-Bernard de Chabaliere (IPG Paris) and the Z12 receiver changed by a ZX Ashtech

4. GPS Antenna Information

4.1 Antenna Type : Ashtech Choke Ring
Serial Number : S/N 700936-11492
Antenna Height (m) : 0.110 DHPHC
Antenna Reference Point : 0.075 / APR
Degree Offset from North :
Antenna Radome Type :
Date Installed : 21-SEP-1999 hh:mm UT
Date Removed :

[ station.info : UAPF UAPF Iquique unap 0.1100 0.0000 0.0000 ASHZ12 ASHDMR L1PHC 8.70 1999 264 0 0 0 0 24 0 0 ]

5. Local Site Ties

5.1 Monument Name : IQ00\_ Iquique \_UAP\_Departm of Technology roof
Site Ref CDP Number : point used during the GPS campaigns 1991 and 1992
Site Ref Domes Number :
Differential Components from GPS Mark to Site Reference (ITRS)
dx (m) : dy (m) : dz (m) :
Accuracy (mm) : (mm)
Date Measured : (dd-MMM-yyyy hh:mm UT)
Additional Information : Mark IPGP

5.2 Monument Name OLD site : UAP0\_ Iquique \_UAP\_Departm of Chemistry\_ old point 1994-1999

Differential Components from GPS Mark to Site Reference (ITRS)

dx (m) :
dy (m) :
dz (m) :
Accuracy (mm) : (mm)
Date Measured : (dd-MMM-yyyy hh:mm UT)
Additional Information :

# UAP0 (inst. Dec.94) et UAPF (inst. 1999-j264)

# rattachement inverse

rename UAPF\_GPS UAP0\_GPS 99 01 01 0 0 99 12 31 0 0 -35.488 -10.448 -0.020 XYZ (1999j264 GPPS)

6. Frequency Standard --- NO

7. Collocation Information

8. Meteorological Instrumentation : NO

8.2 Pressure Sensor Model : NO

8.3 Temperature Sensor Model : NO

8.4 Water Vapor Radiometer : NO

9. On-Site, Point of Contact Agency Information

Agency : Department of Physics\_ Universidad Arturo Prat, Iquique, Chile

Mailing Address :

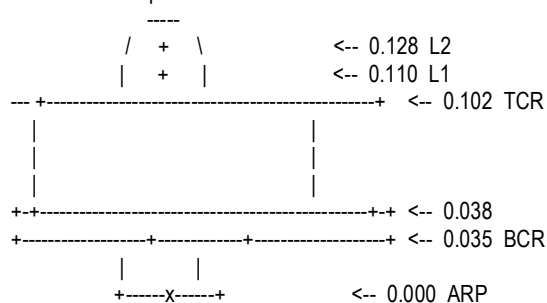
Primary Contact : Contact Name : Manuel Olcay, David Lazo

Telephone (primary) : 447070 E-mail : molcay@cavancha.cec.unap.cl

Secondary Contact : Contact Name : Ruegg Jean-Claude

Telephone (primary) : 0 33 1 44 27 48 93 E-mail : ruegg@ipgp.jussieu.fr

Antenna Graphics with Dimensions Ashtech Choke Ring



<-- 0.381 -->

ARP: Antenna Reference Point L1 : L1 Phase Center

L2 : L2 Phase Center



TCR: Top of Chokering

BCR: Bottom of Chokering

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## ADDITIONAL INFORMATION

Charger :

Battery :

Antenna cable

Dual power connection : *A préciser*

→ A préciser aussi :

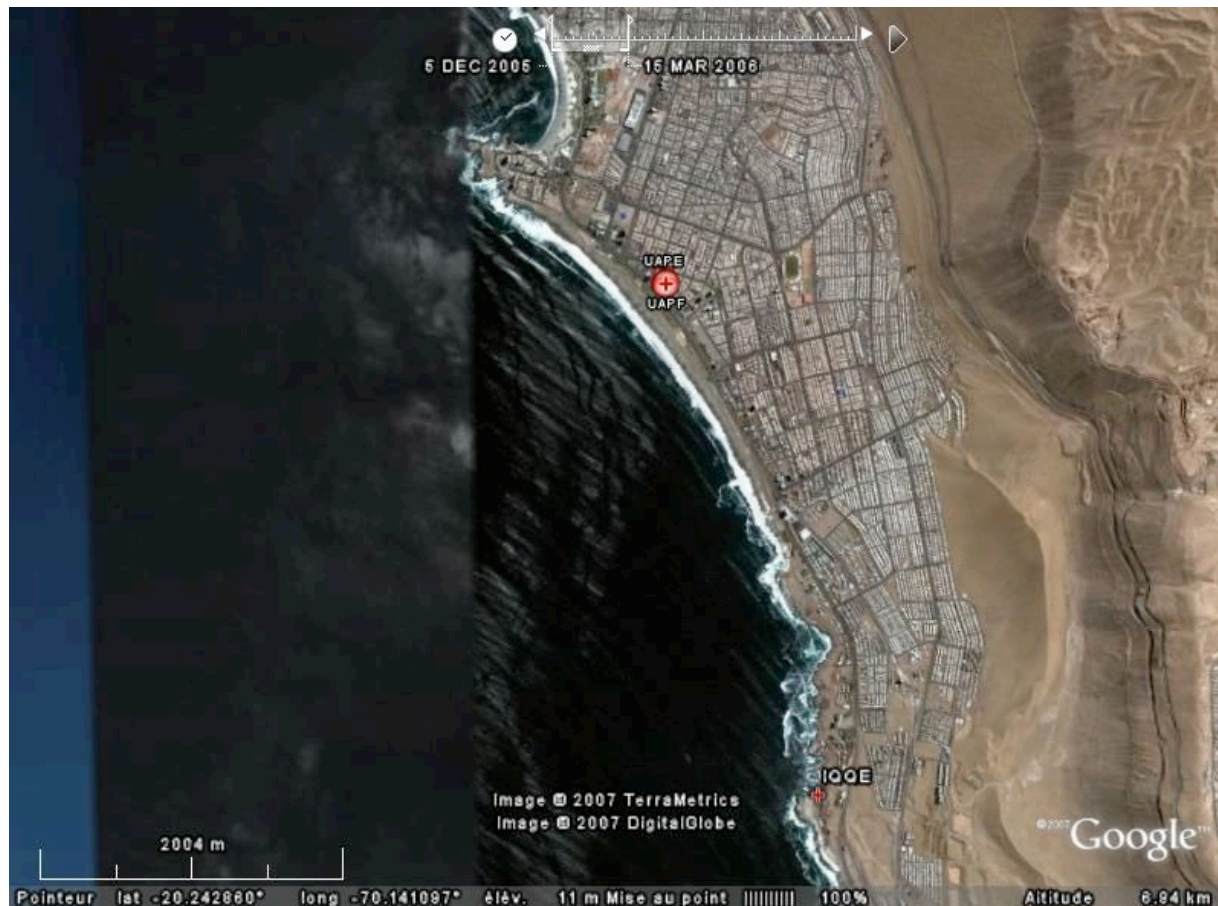
longueur de cable

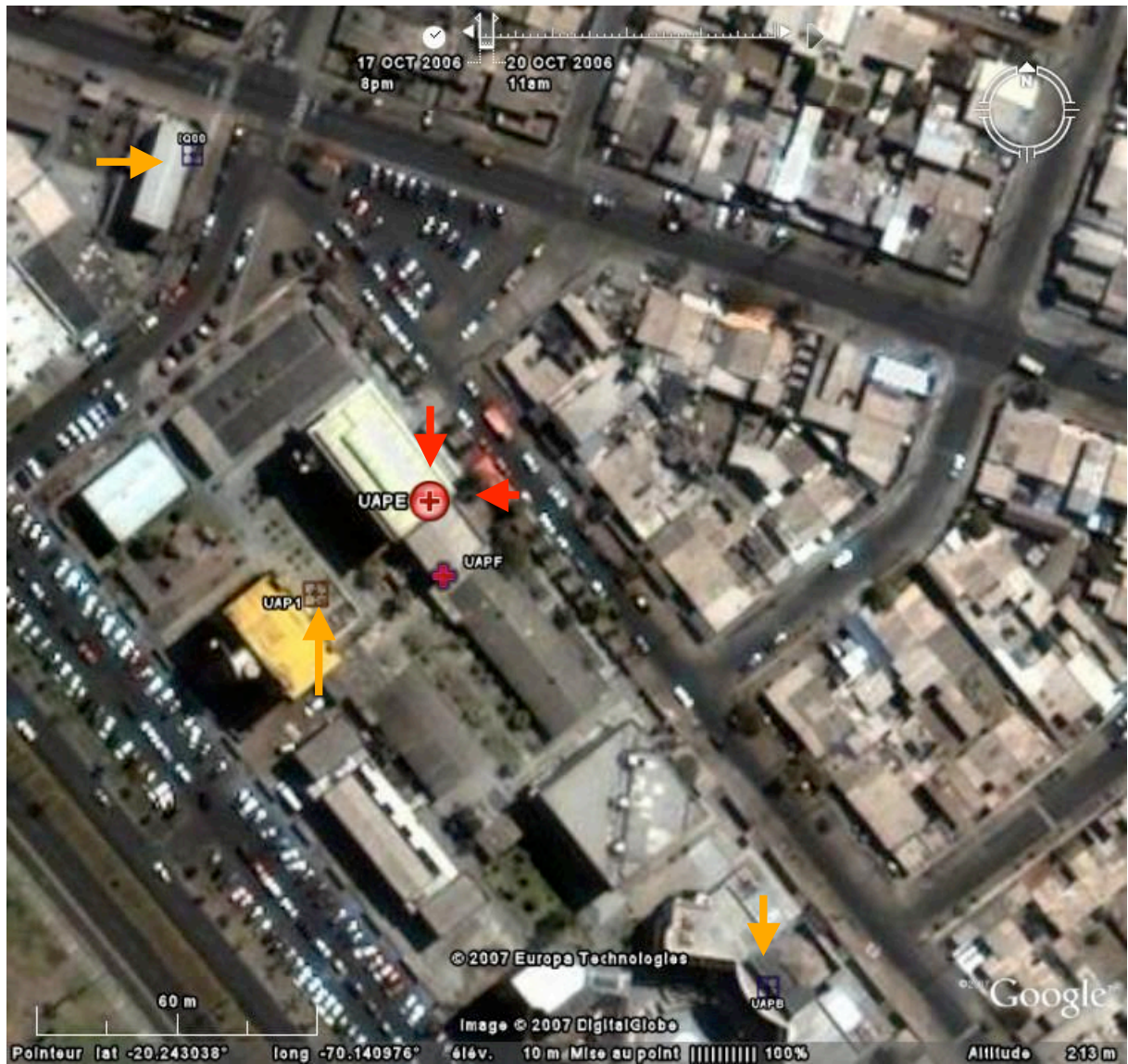
situation de la connexion Internet, adresse Ip

→ a verifier type de recepteur actuel (2007) et antenne

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## Locations from Google Earth





location of current site : UAPE (red arrows) and the old one: UAPF : pink  
location of auxilliary points : UAP1, IQ00, UAPB