Station Exposure Description

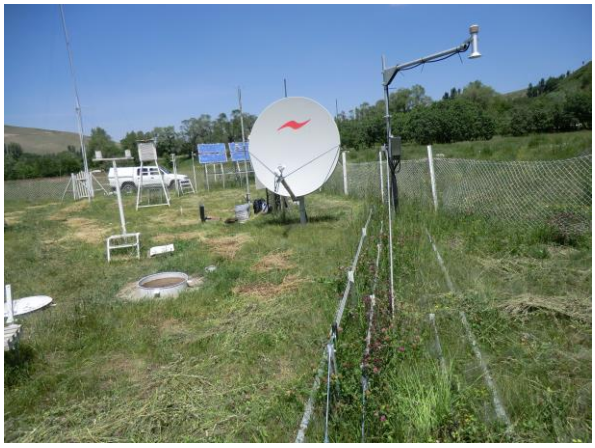
Station: Baytik / Байтик

Station short name:	HM01	Operational since:	16.12.2009
Latitude:	42°38'57.22"N	Country:	Kyrgyz Republic
Longitude:	74°29'47.35"E	Oblast:	Chuy
Elevation [m a.s.l.]:	1580.08 m	River basin:	Chu

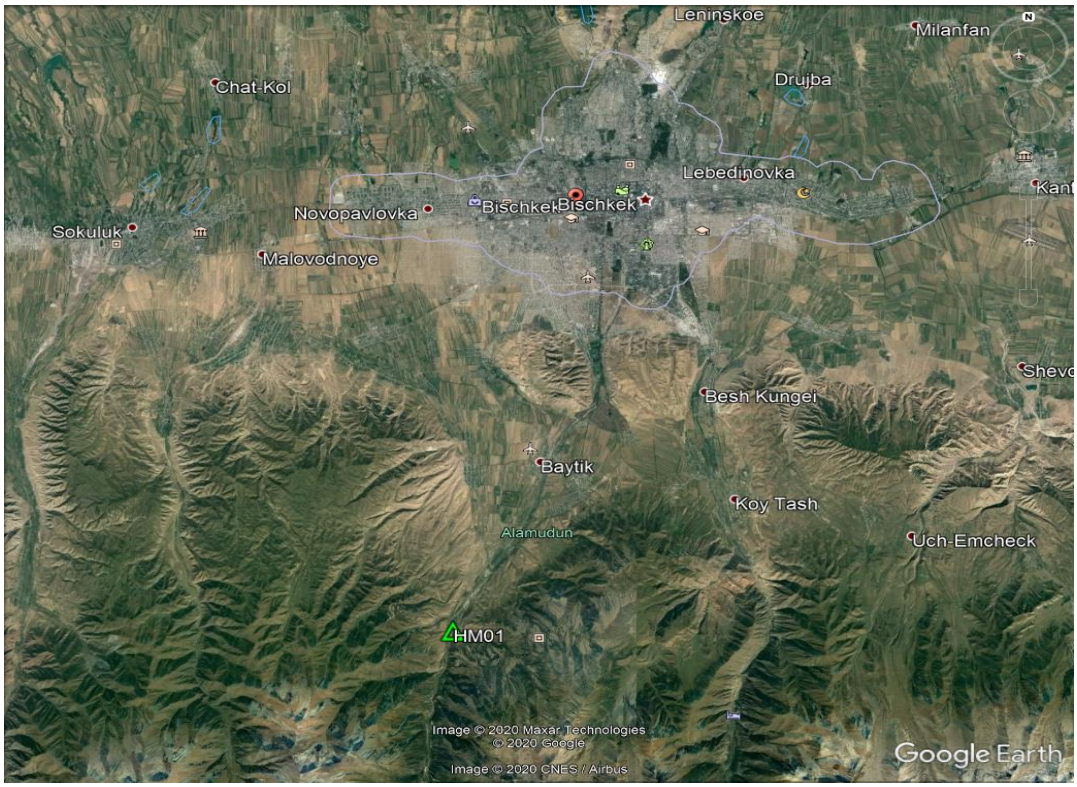
Site Characteristics

Station location:

View to the station from NE



View to the station from SW



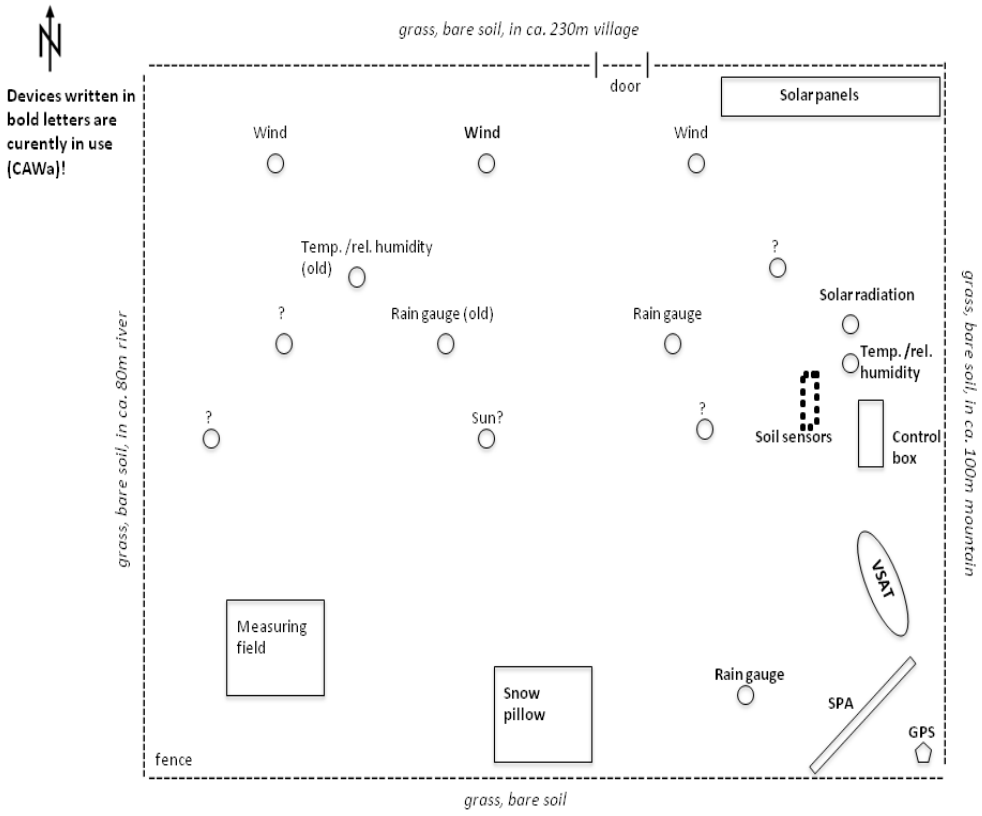
Station location and surroundings

Station Exposure Description

Terrain features:

Degree of urbanization in the surroundings:	Rural, village to the N,
Landscape type (e.g. mountains, coast):	Ca. 400m wide valley with ca. 25m wide river at the height of the station
Direction of slope: Steep slopes, hills, hollows?	Slight slope to the W, descending to a river, to the E ascending to a mountain
Impervious surface, pavements:	Yes
Open water surfaces:	River to the E
Main surface cover in the surroundings:	Bare soil, sparse vegetation, some trees

Station map:



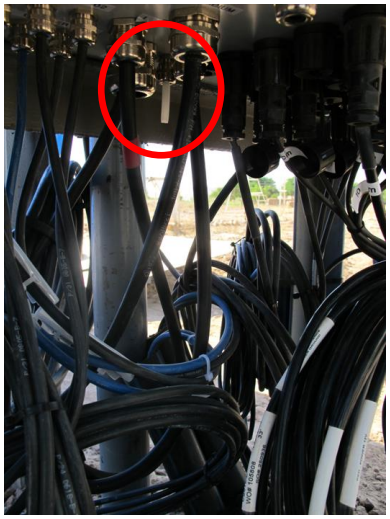
Notes and remarks:

Station Exposure Description

Sensor exposure

Atmospheric pressure:

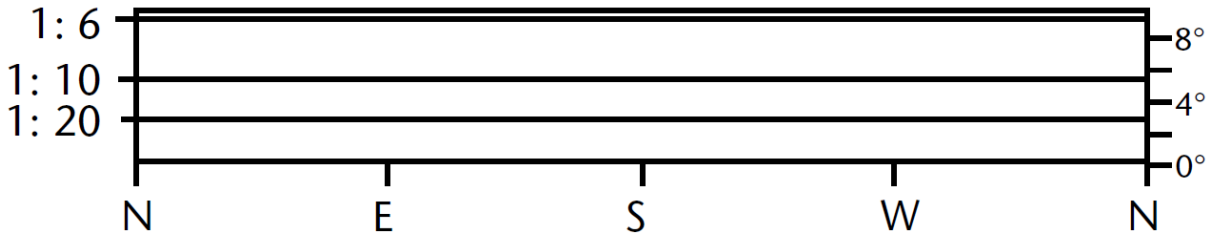
Sheltered within control cabinet?	Yes
Protected from wind gusts?	Yes



Solar radiation:

Sensor height above ground:	2.00 m

Description of radiation horizon (average vertical angle of obstacles)



Temperature and humidity:

Sensor height in m above ground:	2.00 m (bottom edge of the radiation shield)
Artificial ventilation?	Principally available, but not activated
Surface cover under screen:	Bare Soil, in Spring relatively dense ground vegetation layer
Soil under screen:	Gravel, sand

Precipitation:

Gage rim height in m above ground:	1.00 m
Shield type:	None
Alignment of main axis of tipping bucket:	Unknown
Fixation:	Not fixed

Station Exposure Description

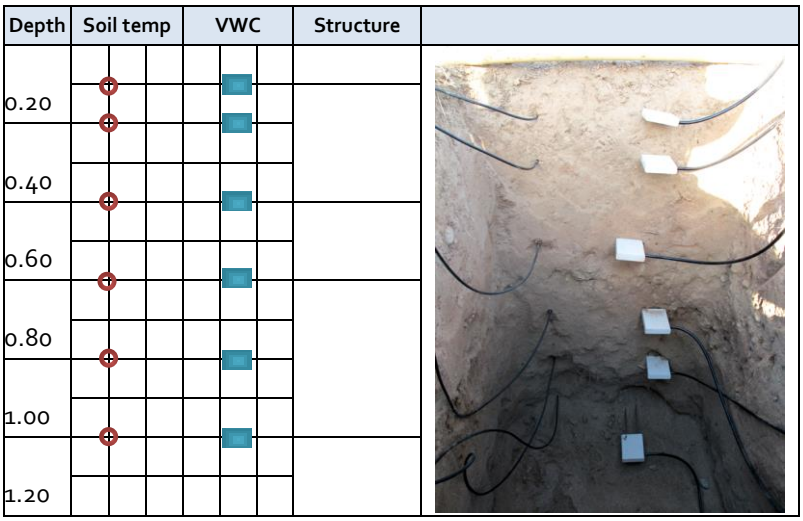
Wind:

Anemometer height in m above ground:	10.00 m
Orientation of junction box	
Free standing?	Yes
If not free standing:	
Building height, width, length in m	
Vegetation:	Bare Soil, in Spring relatively dense ground vegetation layer
Terrain roughness class:	to N: 2 to E: 2.5
	to S: 1.5 to W: 3

Soil temperature and soil water content:

Sensor depths in m below ground:	10, 20, 40, 60, 80, 100 cm below surface
Soil cover above the soil sensors:	Bare Soil, in Spring relatively dense ground vegetation layer
Soil type:	Sand
Soil structure:	
Level of water table in m below surface:	Unknown

Soil sensors locations below ground



GPS:

Distance above surface:	1,84 m
Obstructions:	Small hills (40° elevation) towards East

List of installed sensors:

Measurement parameter	Manufacturer	Type
Temperature and humidity	Campbell Scientific	CS215
Air pressure	Campbell Scientific	CS115
Wind	RM Young	05103-45
Precipitation	Thies	5.4032.35.008
Solar radiation	Hukseflux	NR01
Soil moisture	Campbell Scientific	CS616
Soil temperature	Campbell Scientific	T107
Snow parameters	Sommer	SPA + USH8

Changes and damages:

Hardware

Date	Description of Change
08-09-2010	SPA installed
08-07-2012	Genaral station change from old to new system (main box with barometric sensor, Campbell datalogger), rain sensor repaired
05-07-2017	SPA slightly turned

Software

Date	Description of Change
06-10-2010	New datalogger CR1000-configuration
07-12-2010	New datalogger CR1000-configuration
04-03-2010	New datalogger CR1000-configuration
11-07-2012	New datalogger CR1000-configuration (additional T107 sensors inserted)
05-11-2012	New datalogger CR1000-configuration (snow system added)
25-09-2013	New datalogger CR1000-configuration (T107 sensor configuration changed)
28-05-2014	SPA settings changed
27-01-2016	New datalogger CR1000-configuration (internal battery added)

Local Operator:

The local operator is living close to the station.

Station Exposure Description

Open issues / limitations:

1. Different air temperature and relative humidity installed than the standard sensor: Campbell Scientific CS215.
2. Different precipitation sensor installed than the standard sensor: Thies 5.4032.35.008.
3. Different air pressure sensor installed than the standard sensor: Campbell Scientific RPT410F-3143 but changed on 08-07-2012.