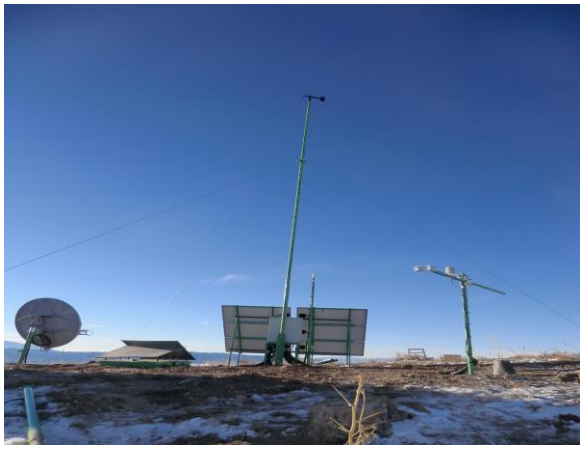
Station Exposure Description

Station: Maidanak / Майданак

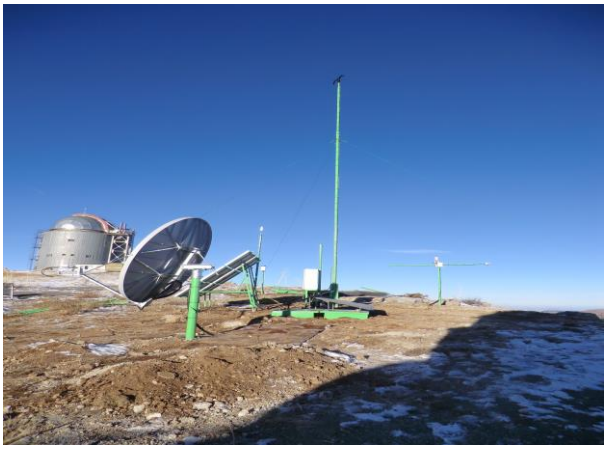
Station short name:	MADK	Operating since:	05.11.2012
Latitude:	38°41'03.41"N	Country:	Republic of Uzbekistan
Longitude:	66°56'41.79"E	Oblast:	Kashkadarya
Elevation [m a.s.l.]:	2586m	River basin:	Kashkadarya

Site Characteristics

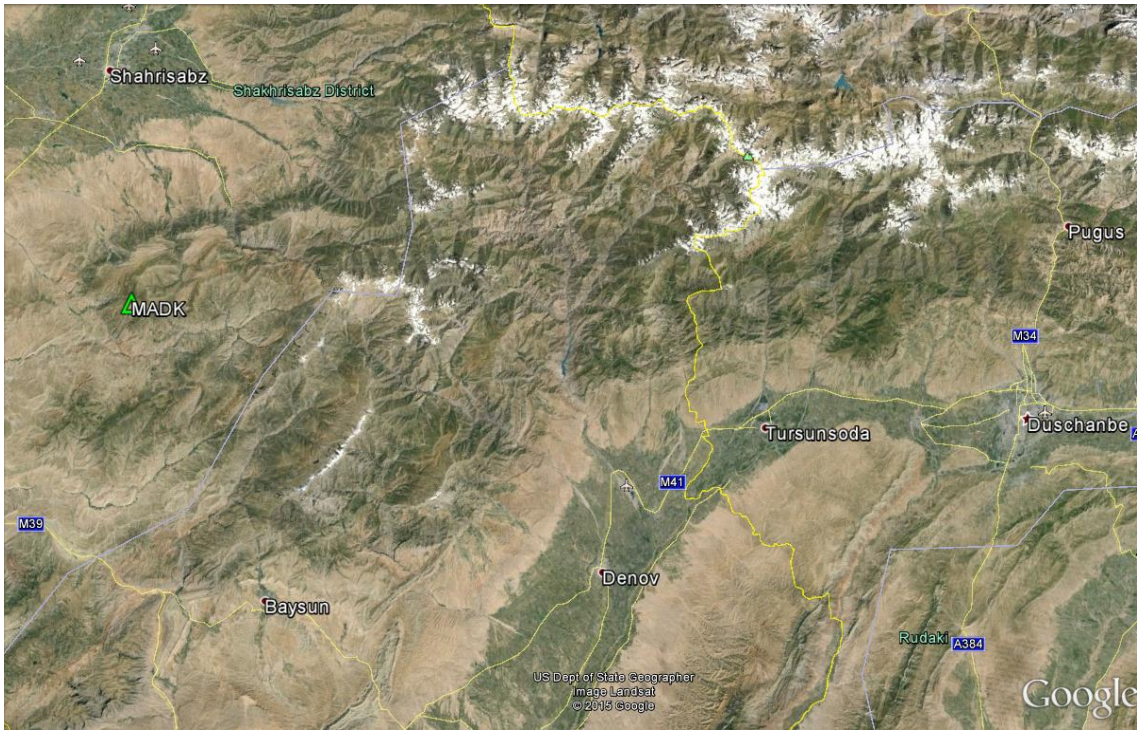
Station location:



View to the station from NE



View to the station from SE



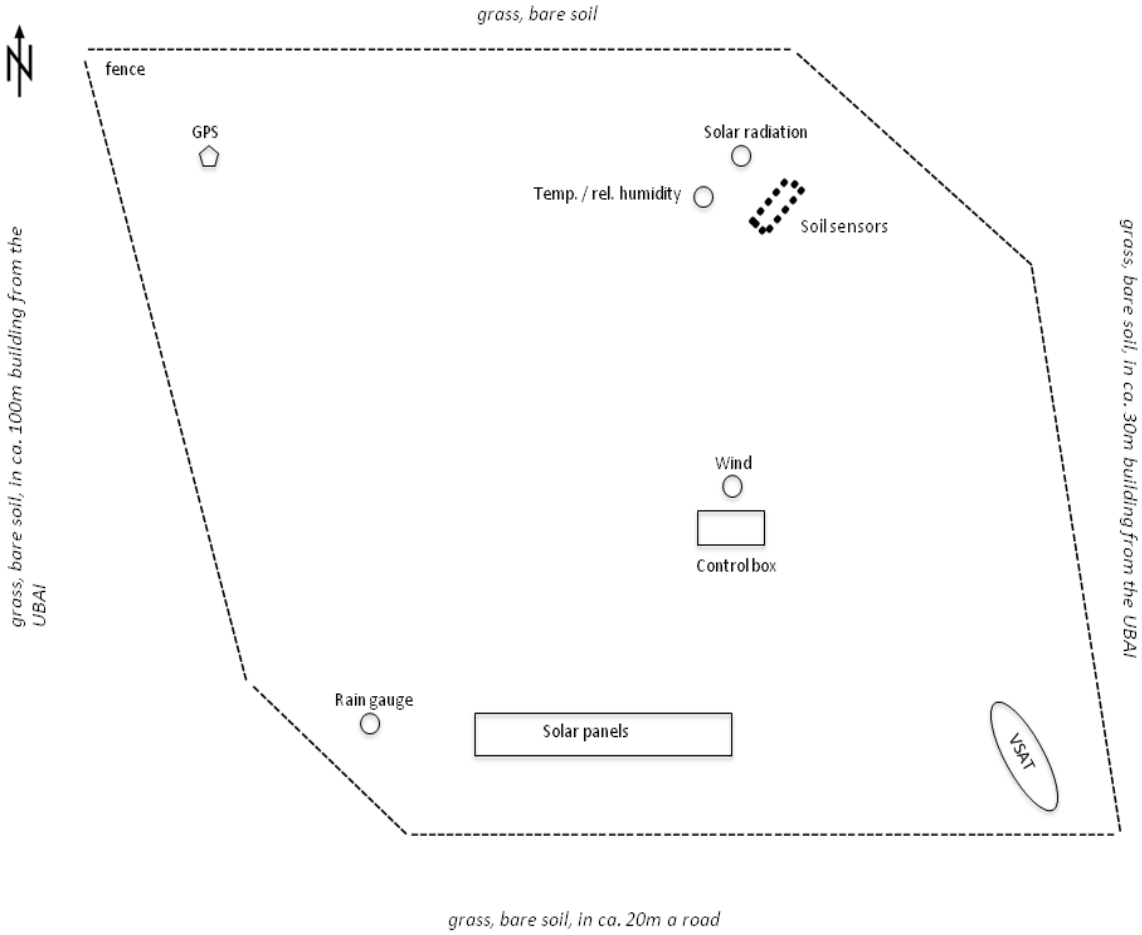
Station location and broader surroundings

Station Exposure Description

Terrain features:

Degree of urbanization in the surroundings:	A few houses, buildings from the UBAI to the W & E
Landscape type (e.g. mountains, coast):	Plateau, mountainous region
Direction of slope: Steep slopes, hills, hollows?	Steep slope in ca. 400m to the N
Impervious surface, pavements:	Road ca. 20m S
Open water surfaces:	Not existent
Main surface cover in the surroundings:	Grass, bare soil

Station map:



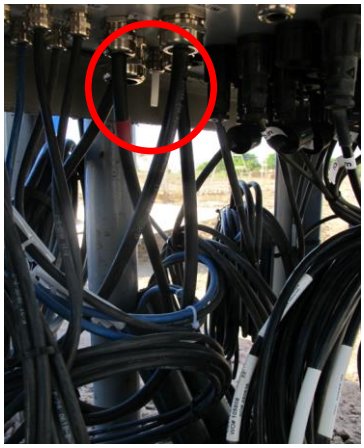
Notes and remarks:

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

Temperature and humidity:

Sensor height in m above ground:	2.00 m (bottom edge of the radiation shield)
Artificial ventilation?	No
Surface cover under screen:	Sparse vegetation
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:	
Fixation:	Not fixed

Station Exposure Description

Wind:

Anemometer height in m above ground:	10.00 m	
Orientation of junction box:	South	
Free standing?	Yes	
If not free standing:		
Building height, width, length in m		
Vegetation:		
Terrain roughness class:	to N: 1	to E: 1...1.5
	to S: 1	to W: 1

Soil temperature and soil water content:

Sensor depths in m below ground:	Soil Temp: 10, 20, 30, 40, 50, 80cm; VWC: 10, 20, 40, 60, 80, 100 cm below surface
Soil cover above the soil sensors:	Bare soil
Soil type:	Gravel/sand
Soil structure:	Heterogeneous gravel
Level of water table in m below surface:	Unknown

Soil sensors locations below ground

Depth	Soil temp	VWC	Structure	
0.20				
0.40				
0.60				
0.80				
1.00				
1.20				

GPS:

Distance above surface:	2,06 m
Obstructions:	High snow depth during winter season

Station Exposure Description

List of installed sensors:

Measurement parameter	Manufacturer	Type
Temperature and humidity	Vaisala	HMP45
Air pressure	Setra	278
Wind	RM Young	05103-45
Precipitation	RM Young	52203
Solar radiation	Hukseflux	NR01
Soil moisture	Campbell Scientific	CS616
Soil temperature	Campbell Scientific	T107

Changes and damages:

Hardware

Date	Description of Change
14-07-2019	Rain gauge fixed with metal pipes, grounding inserted, realignment of VSAT antenna

Software

Date	Description of Change
27-01-2016	CR1000-config changed (internal battery)

Local Operator:

There are people working at the Maidanak observatory (not during winter season) who care for the station.

Open issues / limitations: