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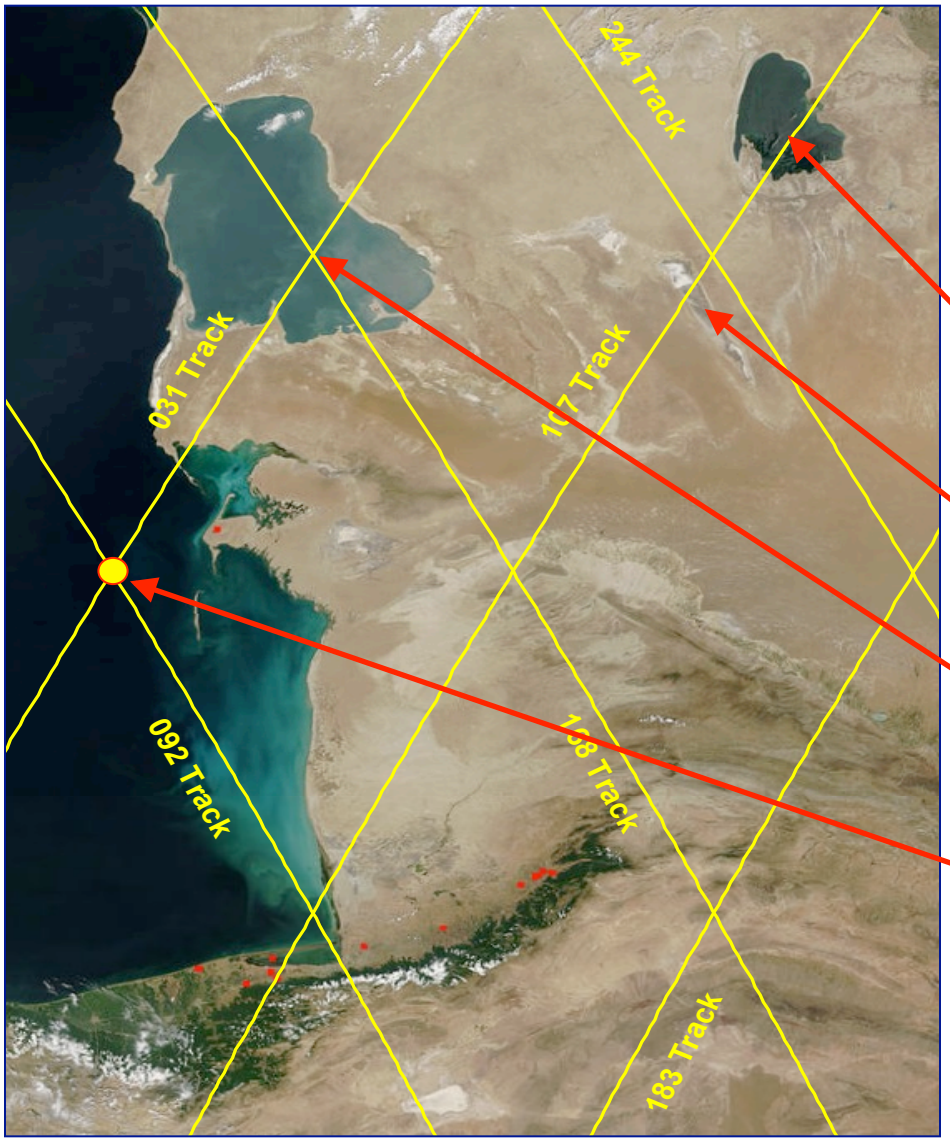
P.P. Shirshov Institute of Oceanology, Russian Academy of Sciences, Moscow, Russia

Dr. S.A. Lebedev
Geophysical Center, Space Research Institute, Russian Academy of Sciences, Moscow, Russia

D.M. Solovyov
Marine Hydrophysical Institute, National Academy of Sciences of Ukraine, Sevastopol, Ukraine

Satellite Altimetry of Inland Water Bodies in Turkmenistan

Complex Satellite Monitoring of Water Resources in Turkmenistan 2009-2012



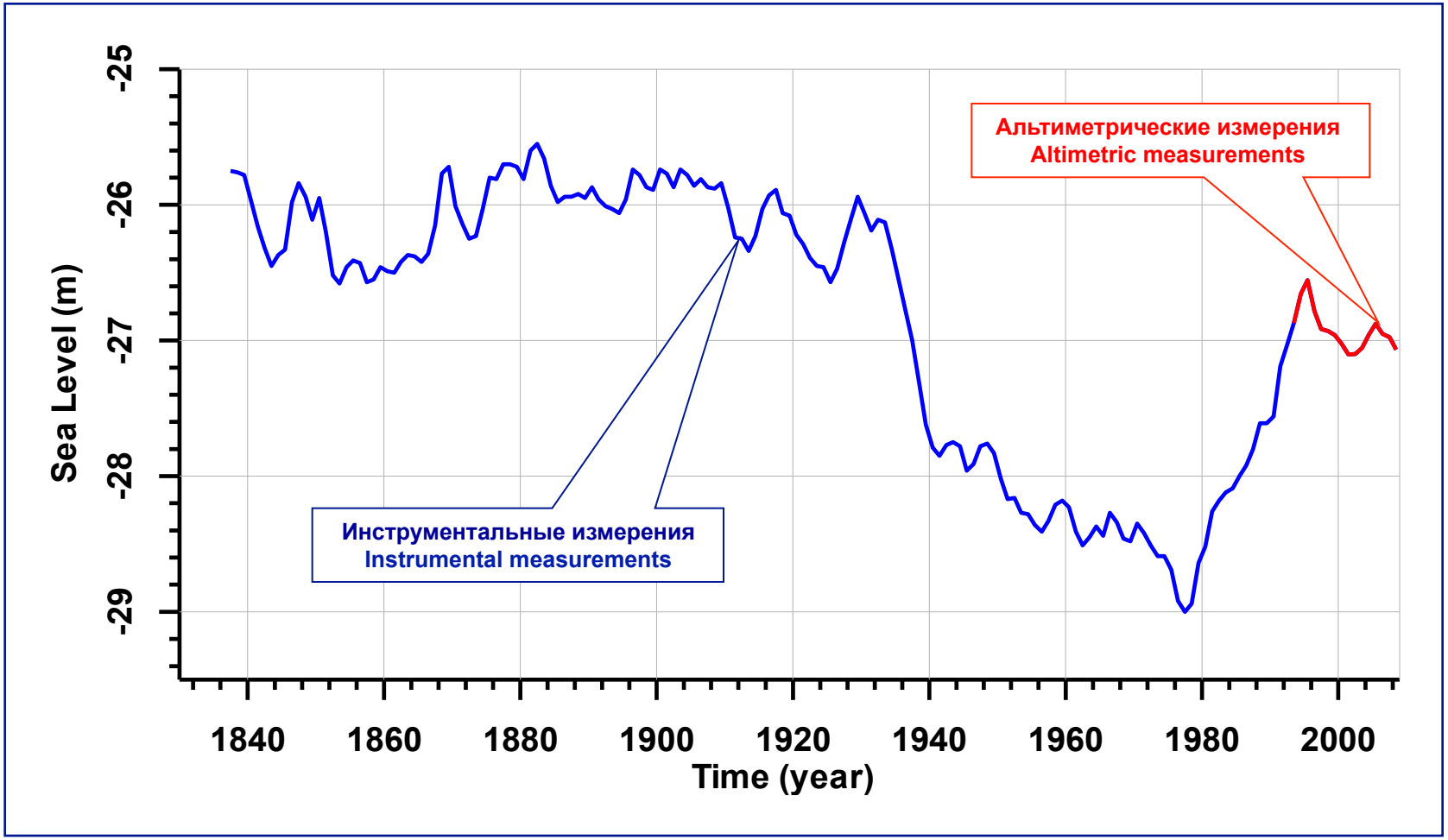
Sarykamysh Lake

Altyn Asyr Lake

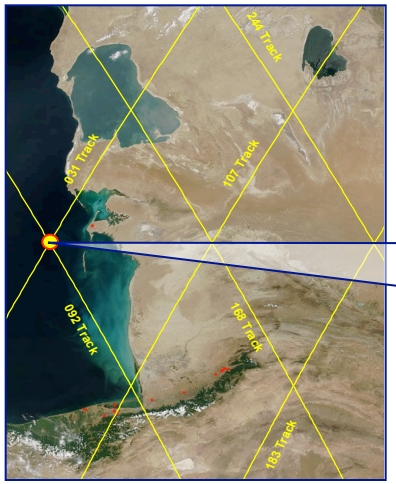
Kara-Bogaz-Gol Bay

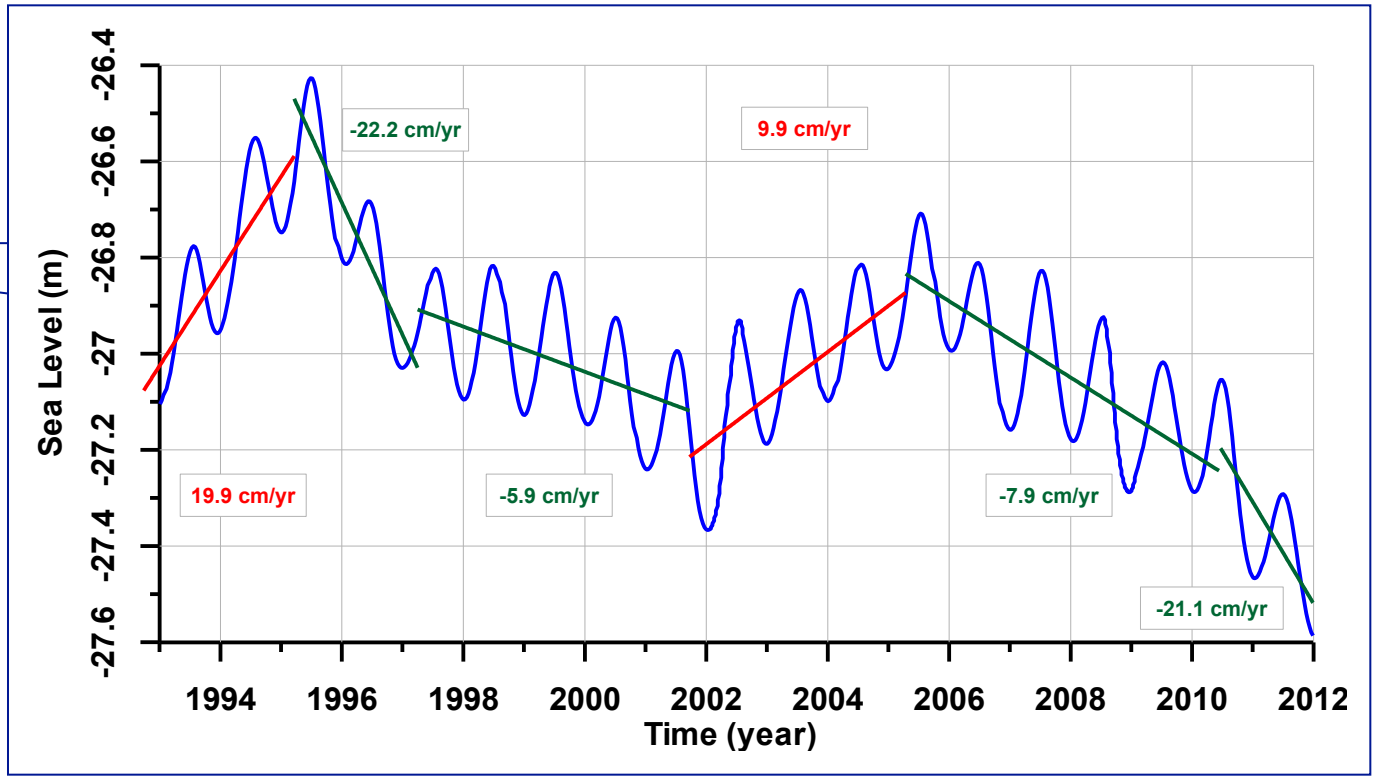
The Caspian Sea

The Caspian Sea Level Variation

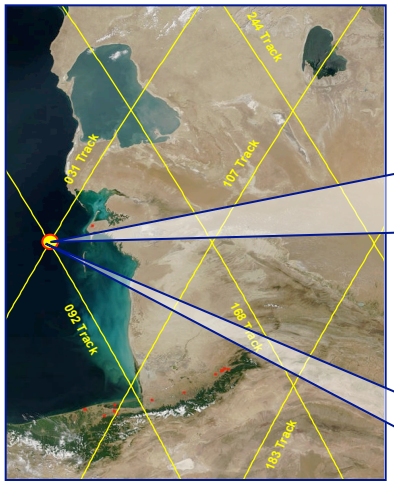


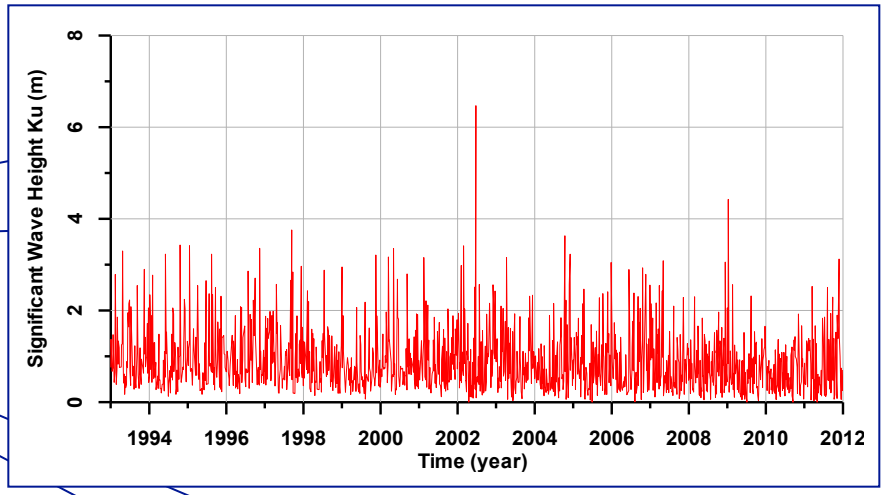
The Caspian Sea Level Variation (1993-2011)

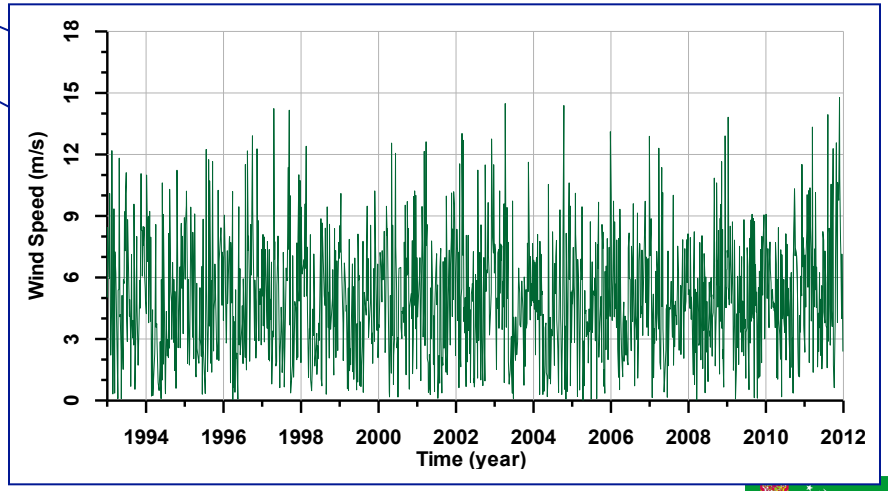




The Caspian Sea Wave Height and Wind Speed Variation (1993-2011)



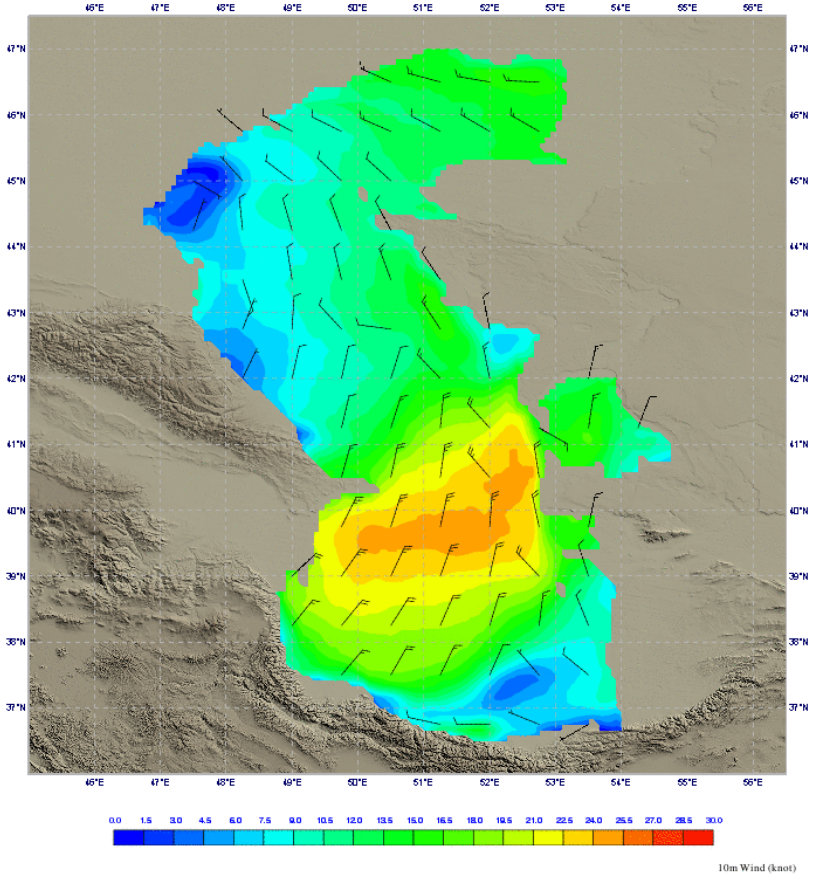




The Caspian Sea Wave Height and Wind Speed Daily Meteo Data (11 September 2012)

HAZAR

10m Wind (knot) Run: 11.09.2012 00:00GMT (T+12) Valid: 11.09.2012 12:00GMT (Tuesday)



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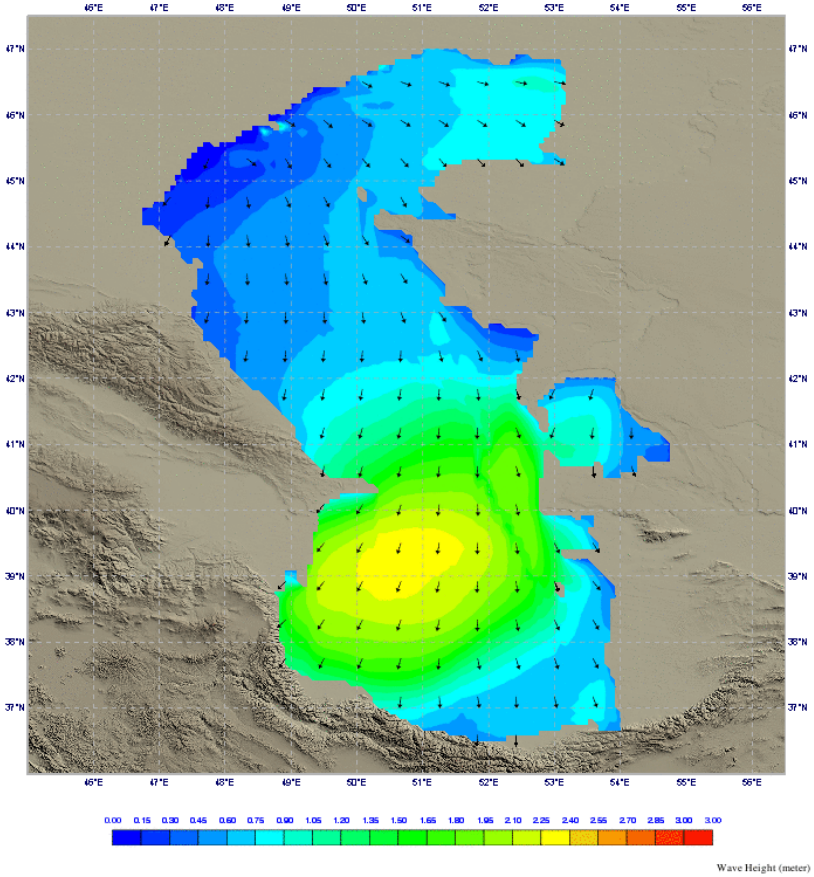
HAZAR

Wave Height (meter) Run: 11.09.2012 00:00GMT (T+12) Valid: 11.09.2012 12:00GMT (Tuesday)



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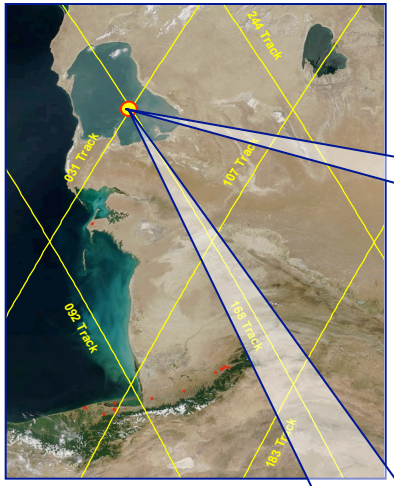
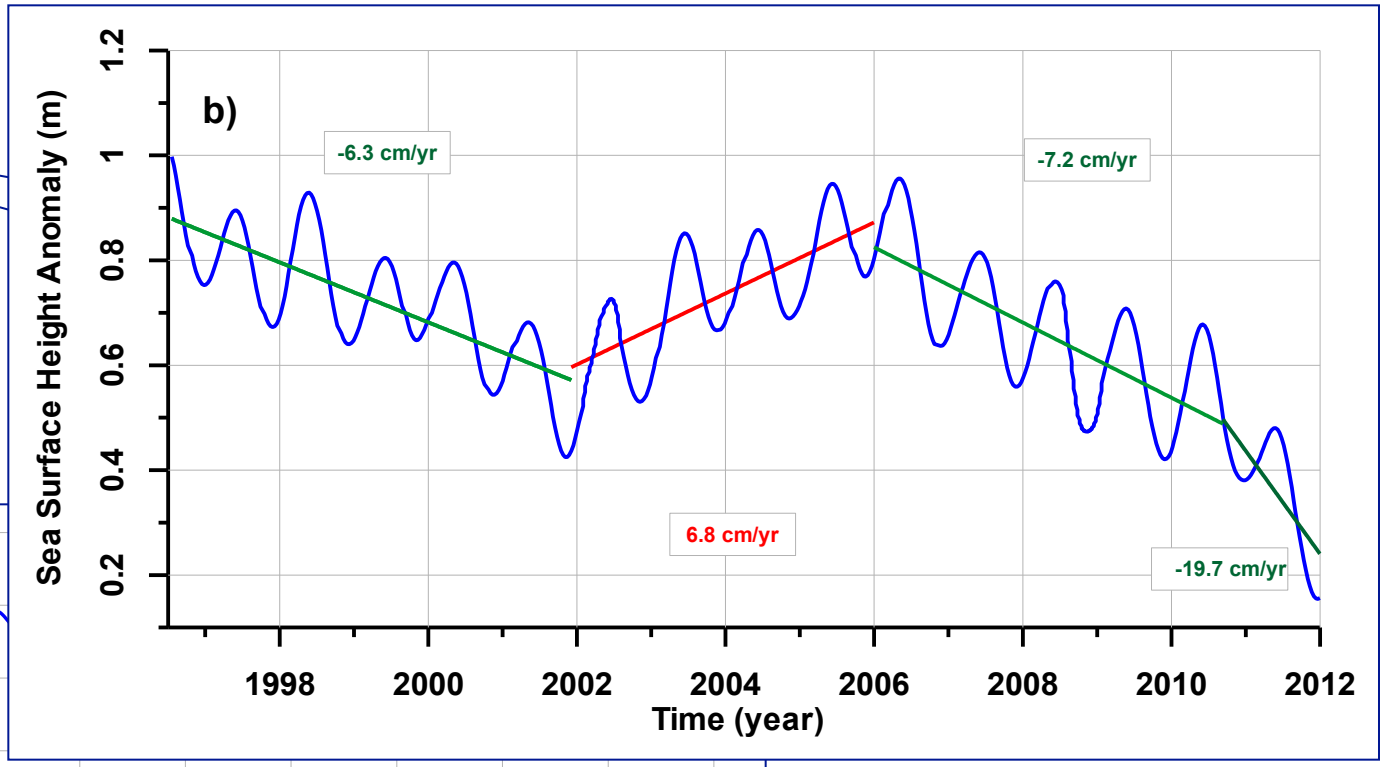
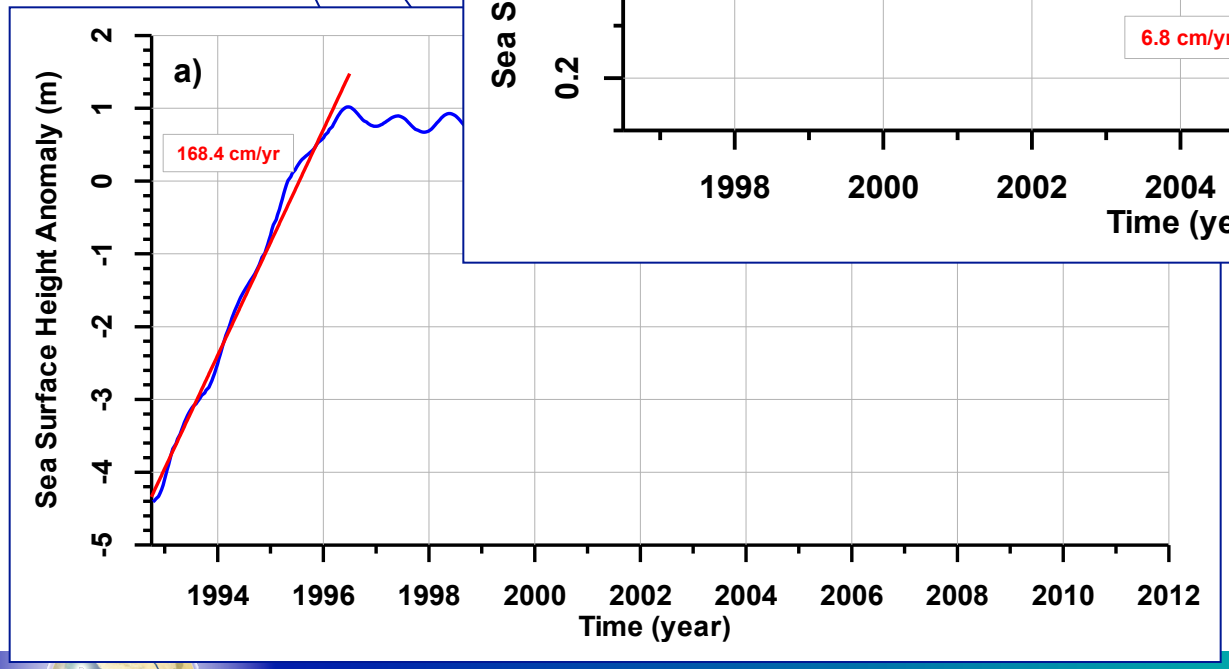
Turkmen National Tourist Area AVAZA

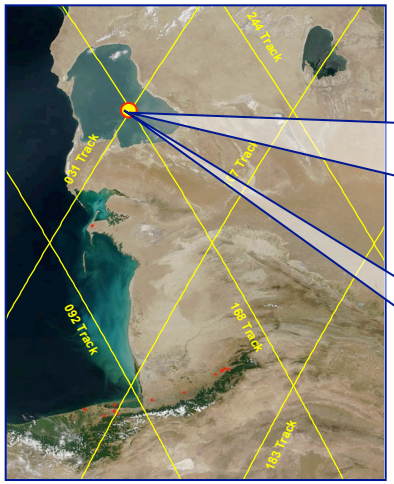
Kara-Bogaz-Gol Bay Sea Level Variation (1993-2011)

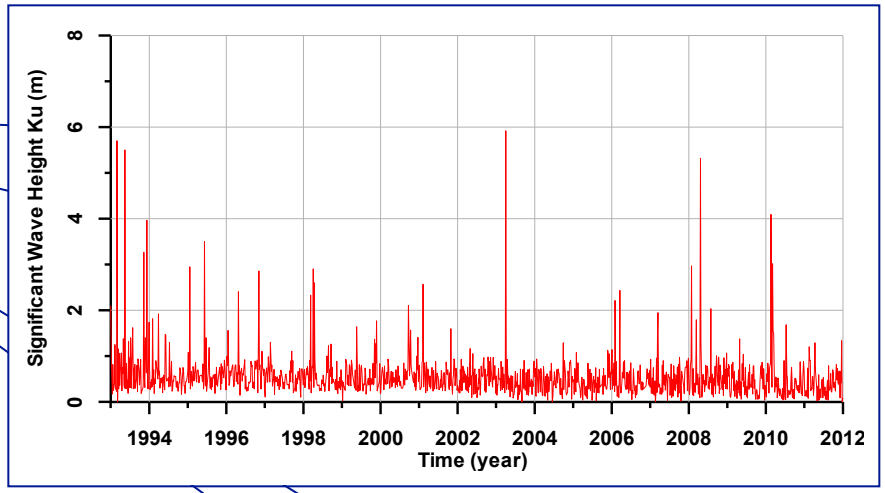


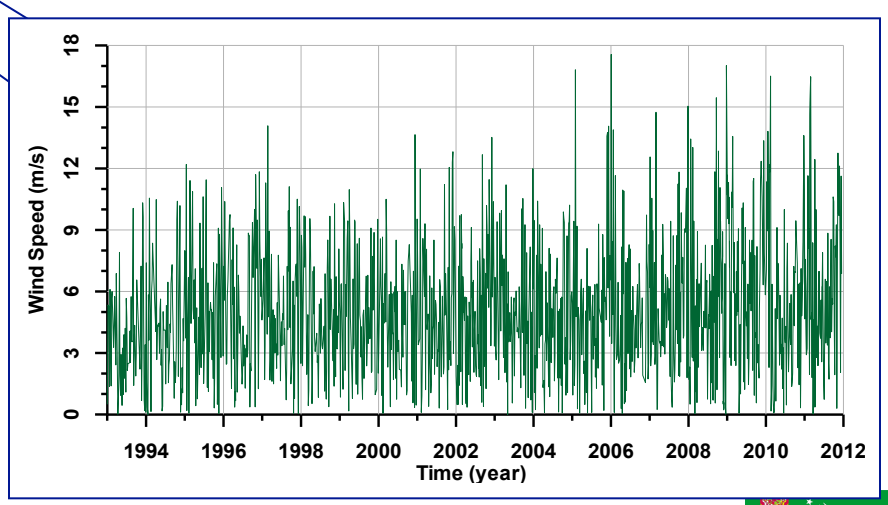




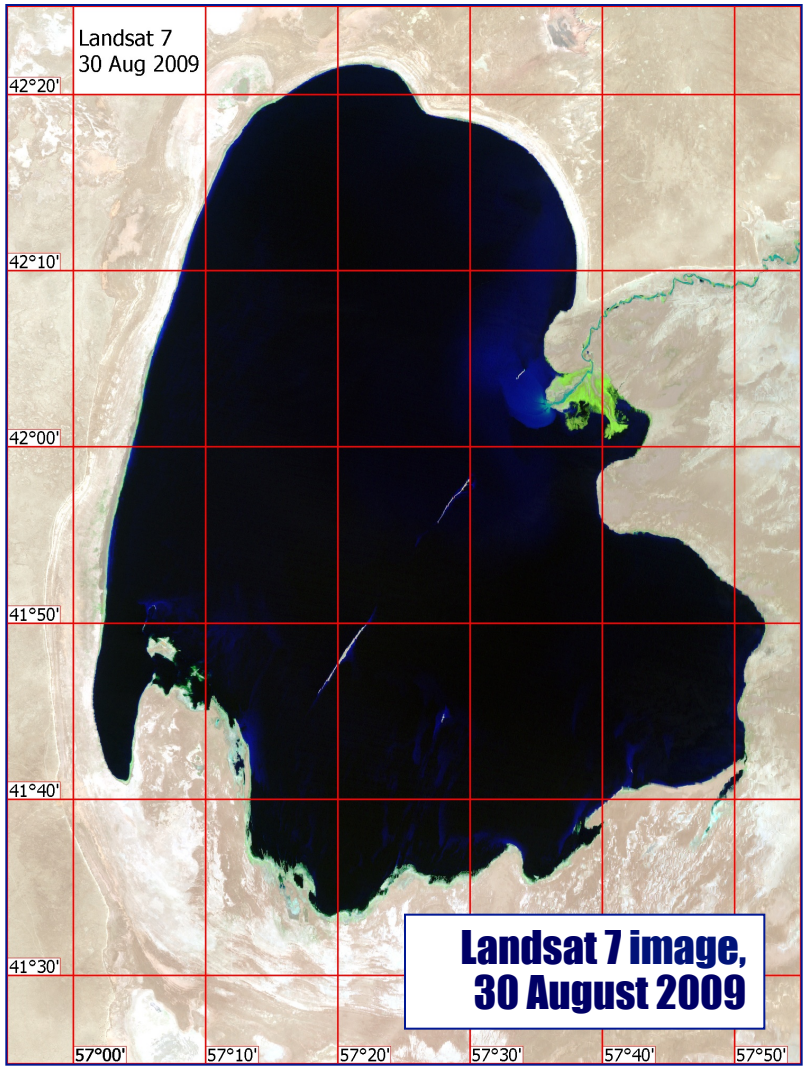
The Kara-Bogaz-Gol Bay Wave Height and Wind Speed Variation (1993-2011)

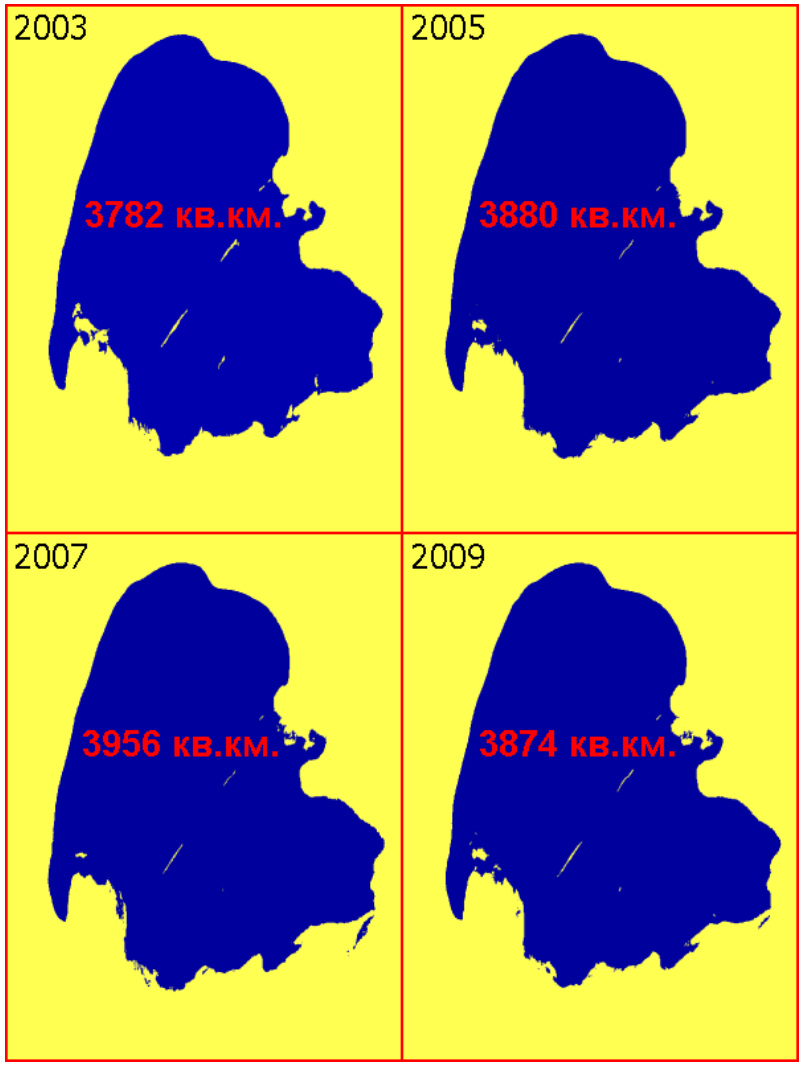




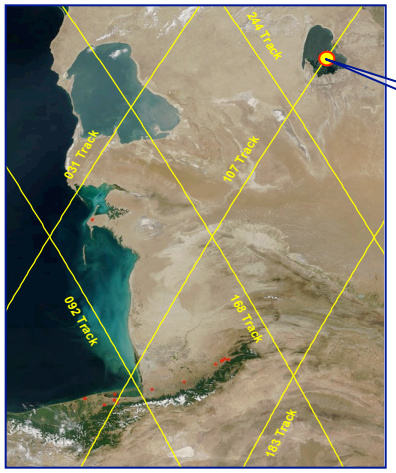


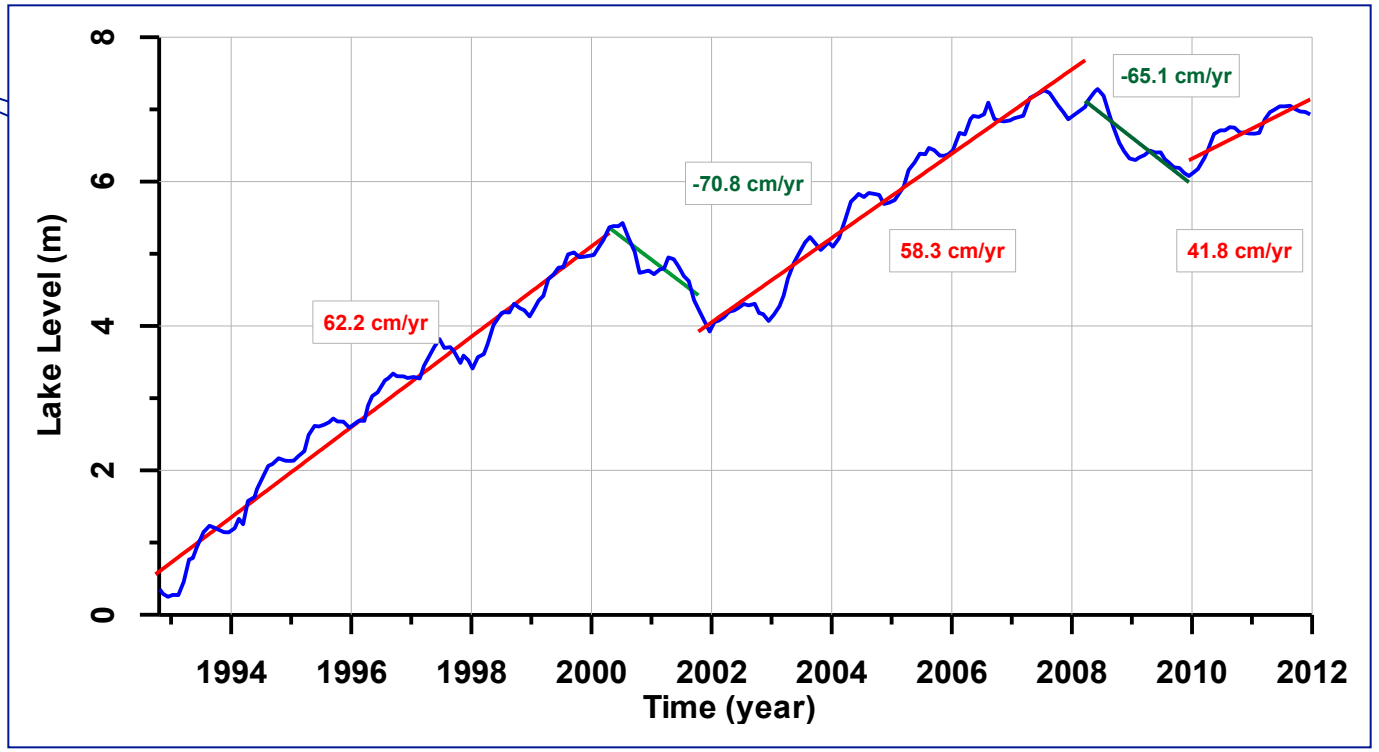
The Sarykamysh Lake



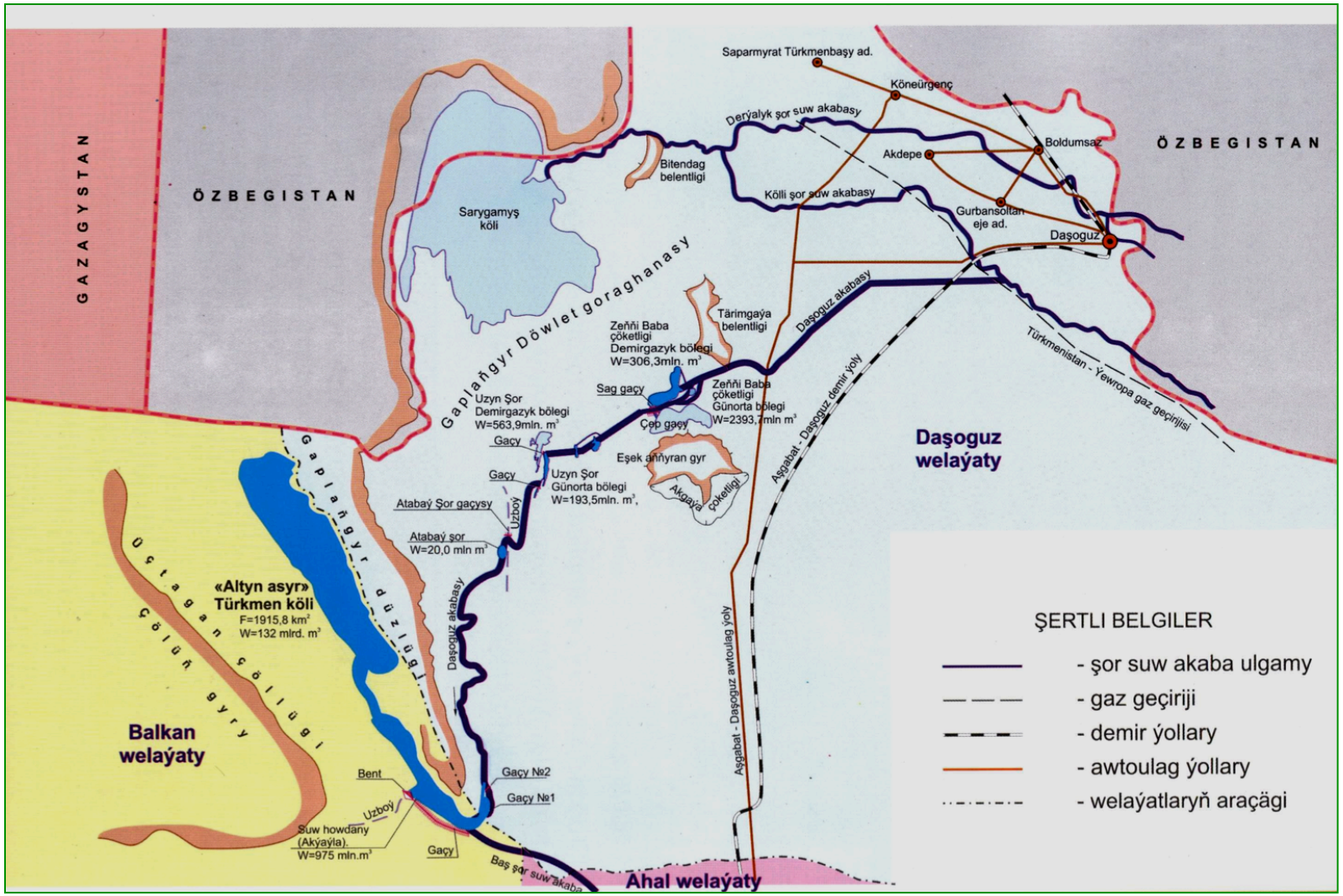


The Sarykamysh Lake Level Variation (1993-2011)



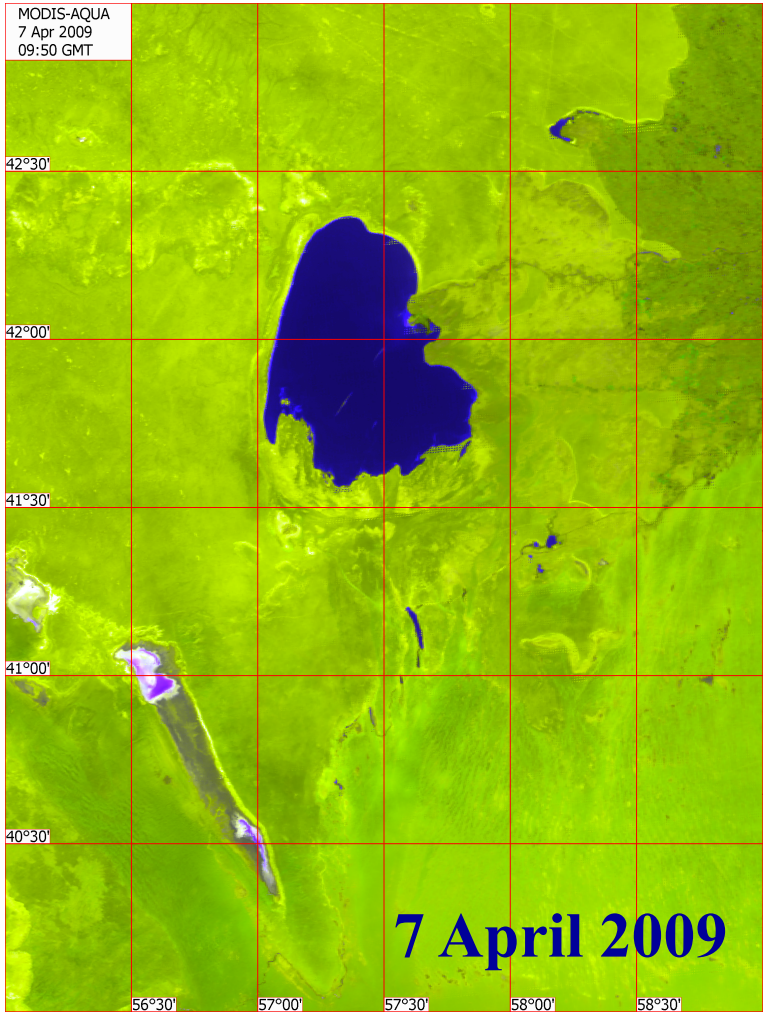


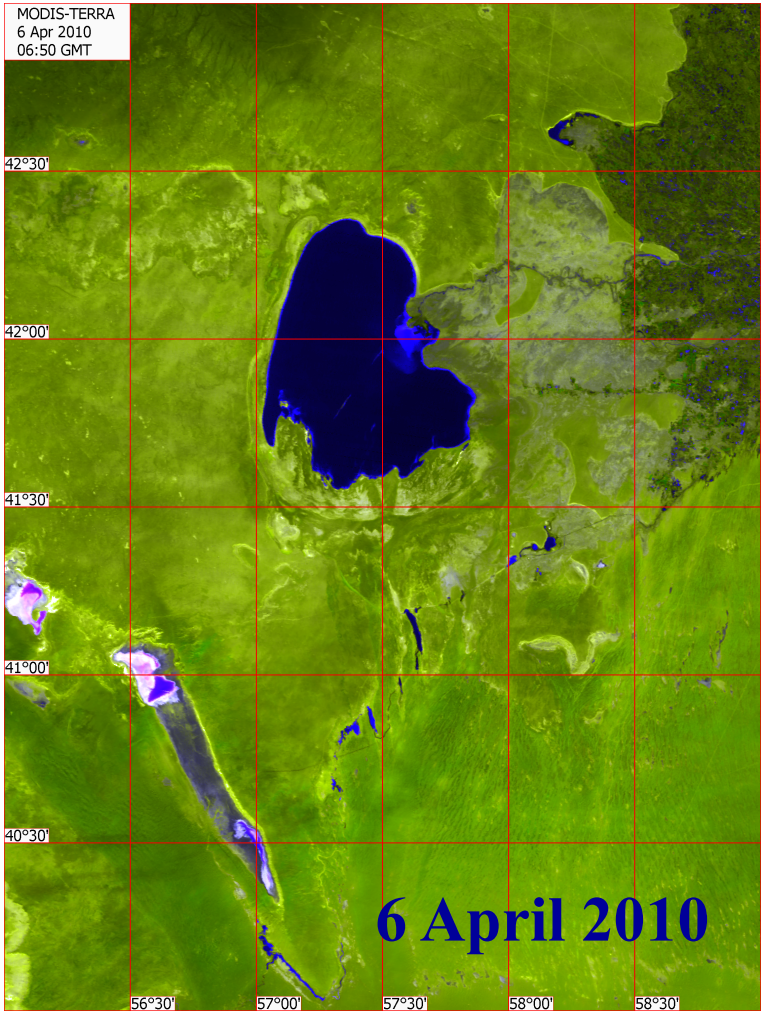
The Altyn Asyr Lake Project

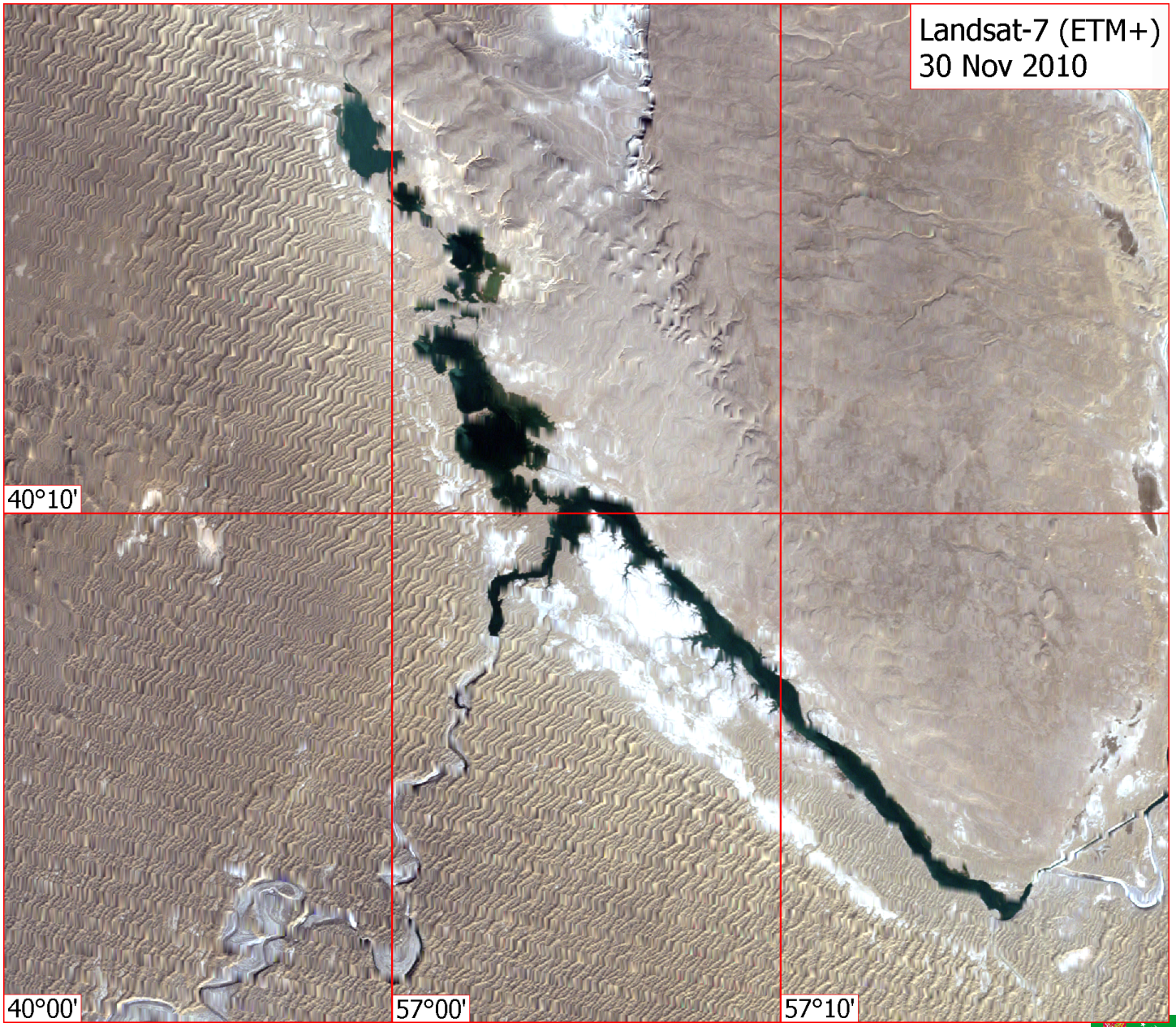


The Altyn Asyr Lake Construction (since 2009)

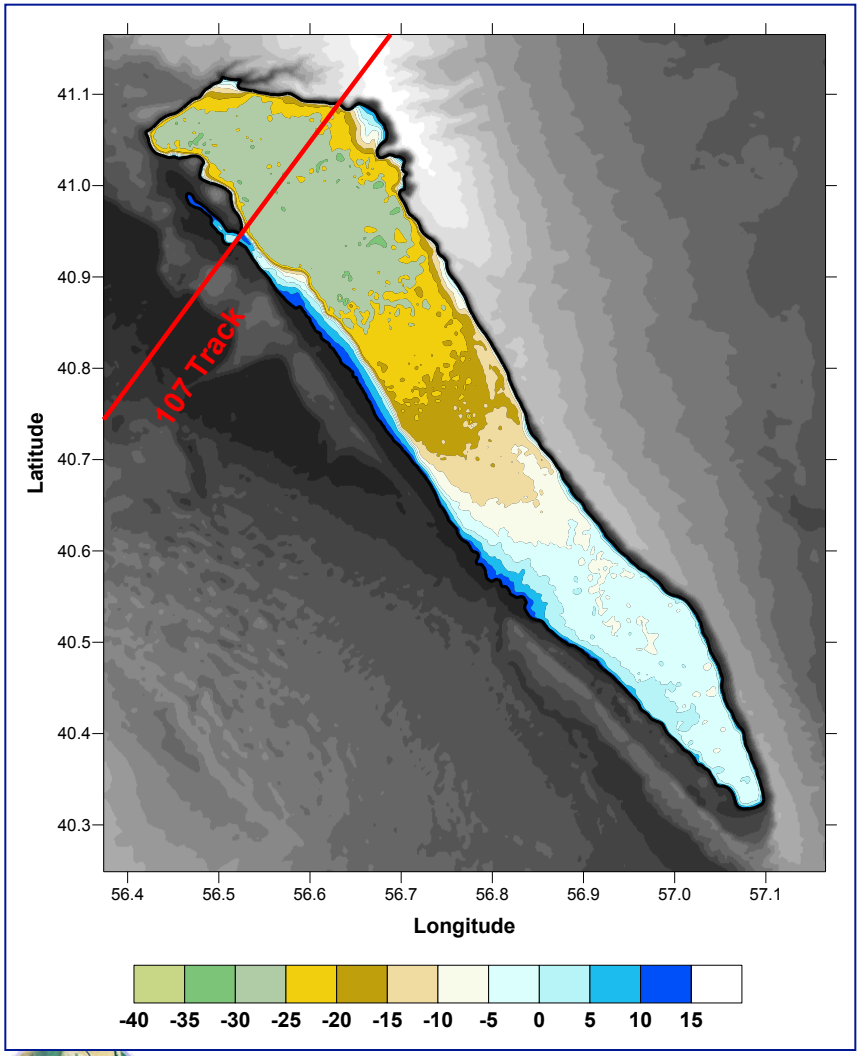
The Sarykamysh and Altyn Asyr Lakes

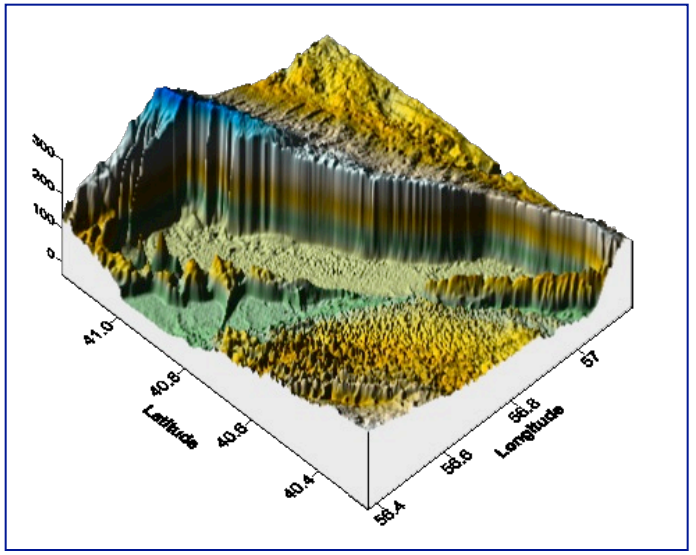


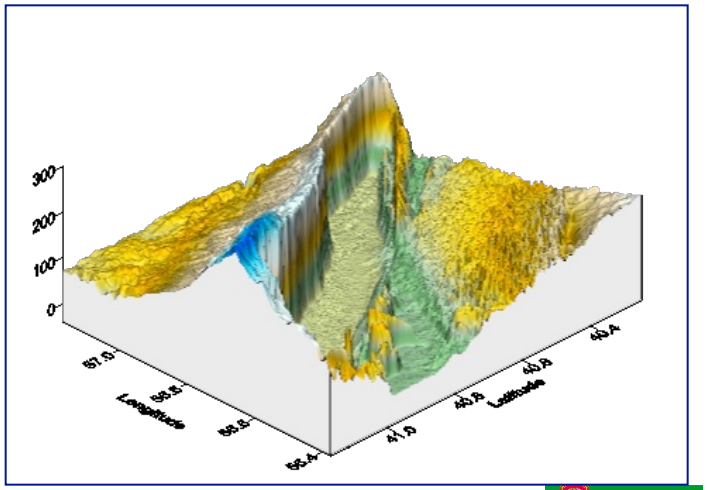



Landsat-7 (ETM+)
30 Nov 2010
40°10'
40°00'
57°00'
57°10'

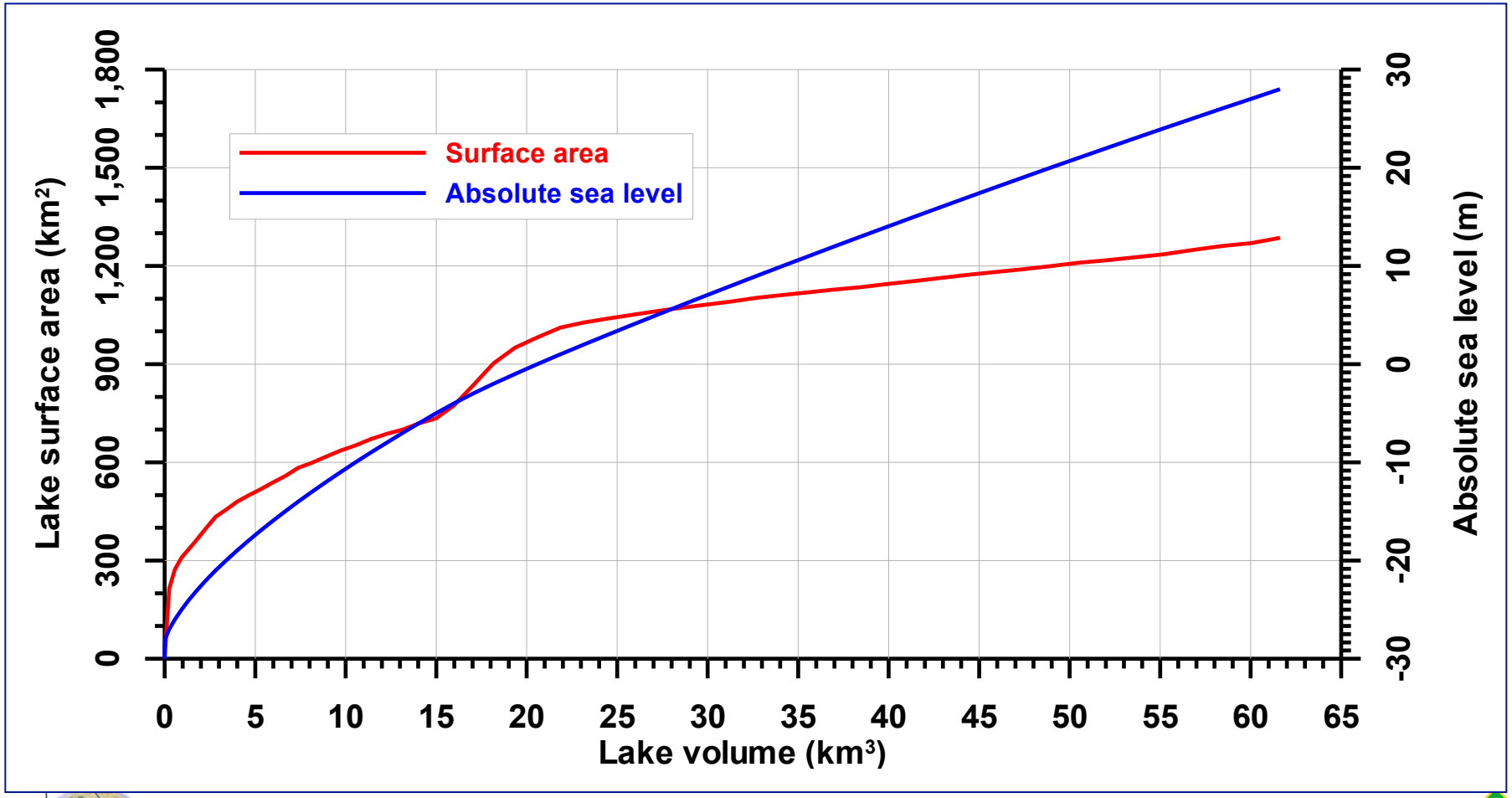
Digital elevation model of the Karashor Depression was prepared basing on the data base of NASA Shuttle Radar Topography Mission (SRTM version 4.1) with 90 m spatial resolution



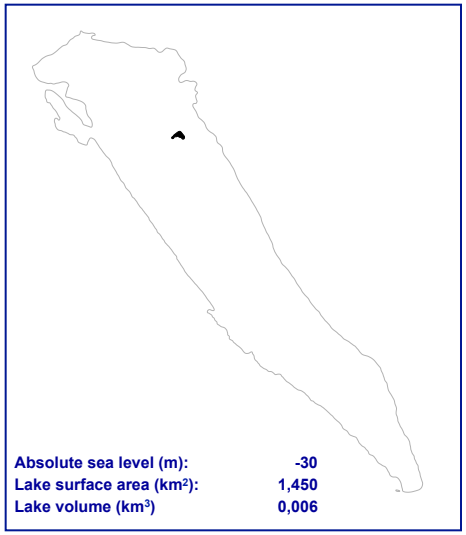




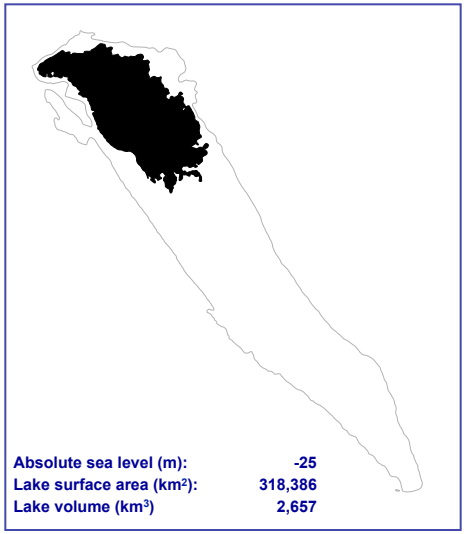
Karashor Depression Morphometric characteristics



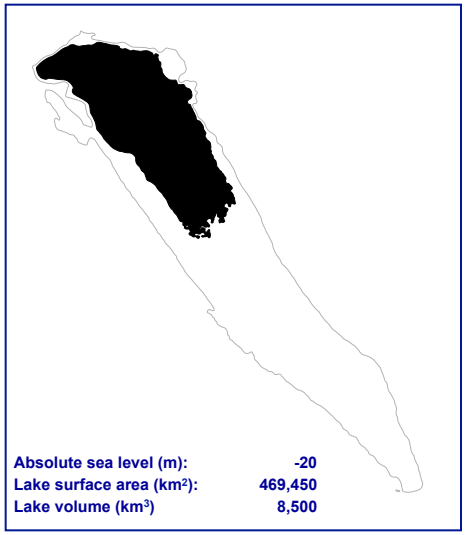
Karashor Depression filling by drainage water
Morphometric characteristics



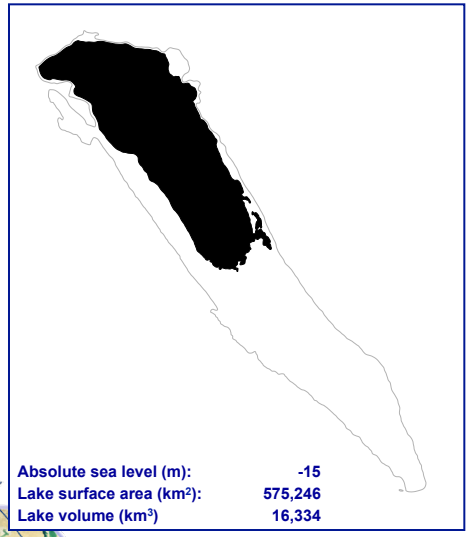
Absolute sea level (m):	-30
Lake surface area (km²):	1,450
Lake volume (km³)	0,006



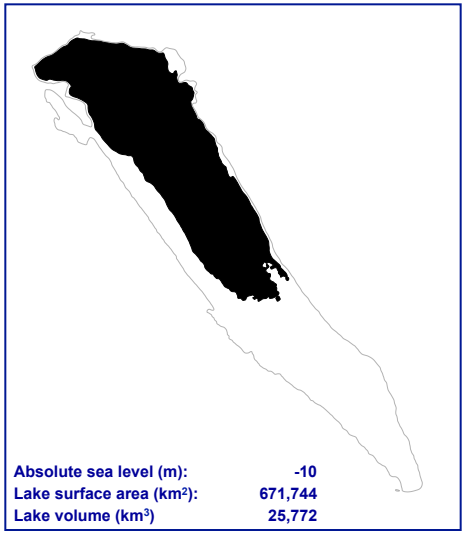
Absolute sea level (m):	-25
Lake surface area (km²):	318,386
Lake volume (km³)	2,657



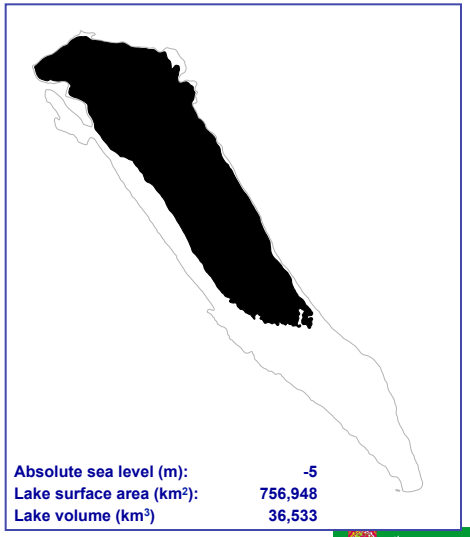
Absolute sea level (m):	-20
Lake surface area (km²):	469,450
Lake volume (km³)	8,500



Absolute sea level (m):	-15
Lake surface area (km²):	575,246
Lake volume (km³)	16,334

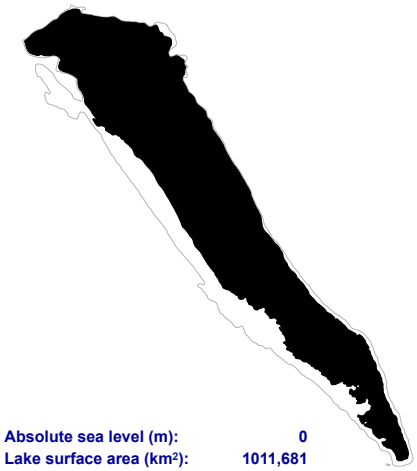


Absolute sea level (m):	-10
Lake surface area (km²):	671,744
Lake volume (km³)	25,772

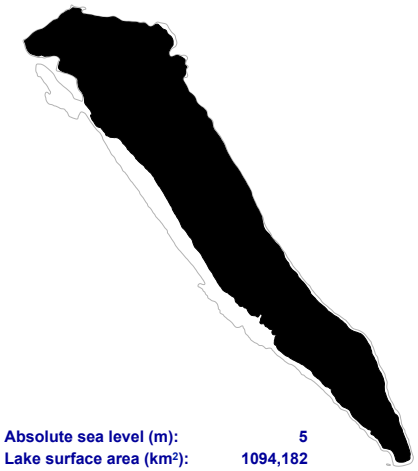


Absolute sea level (m):	-5
Lake surface area (km²):	756,948
Lake volume (km³)	36,533

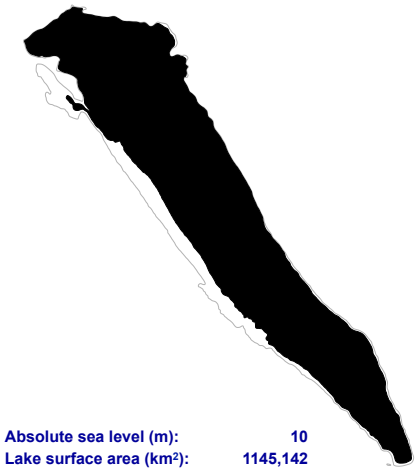
Karashor Depression filling by drainage water
Morphometric characteristics



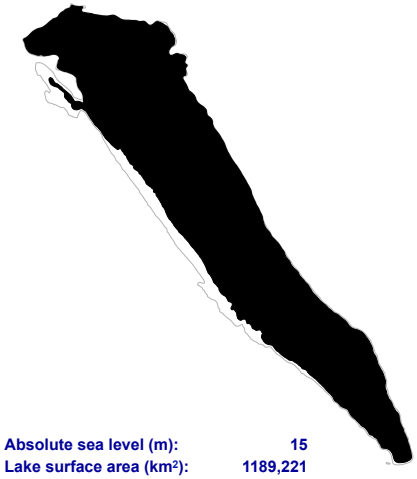
Absolute sea level (m):	0
Lake surface area (km²):	1011,681
Lake volume (km³)	50,188



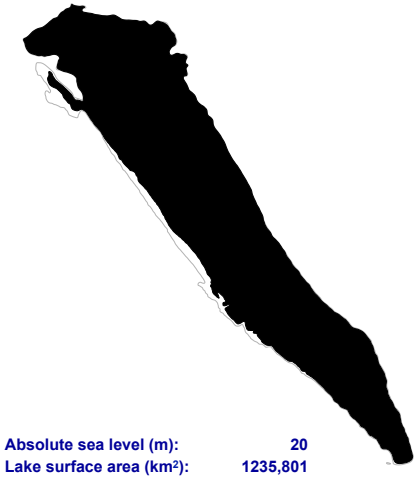
Absolute sea level (m):	5
Lake surface area (km²):	1094,182
Lake volume (km³)	66,134



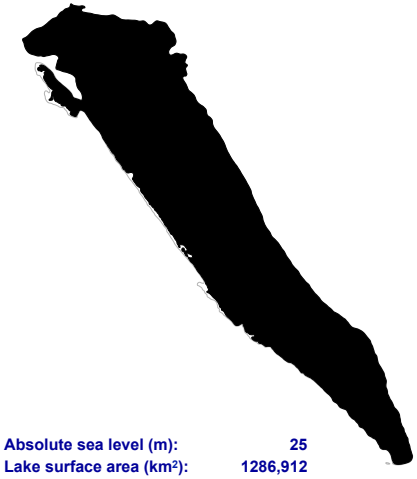
Absolute sea level (m):	10
Lake surface area (km²):	1145,142
Lake volume (km³)	83,101

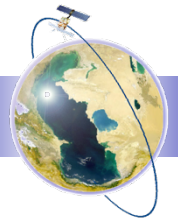


Absolute sea level (m):	15
Lake surface area (km²):	1189,221
Lake volume (km³)	100,749



Absolute sea level (m):	20
Lake surface area (km²):	1235,801
Lake volume (km³)	119,068



Absolute sea level (m):	25
Lake surface area (km²):	1286,912
Lake volume (km³)	138,081

Thank you for your attention