INTERNATIONAL CONFERENCE "MARINE RESEARCH HORIZON 2020"
17-20 SEPTEMBER 2013
MARES2020
Hotel Admiral, Golden Sands Resort, BULGARIA
INSTITUTE OF OCEANOLOGY - BULGARIAN ACADEMY OF SCIENCES

WEB publishing of Argo float data from Black Sea

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About BulARGO project

Funded by:
Bulgarian National Science Fund to the Ministry of Education, Youth and Science, which aims to establish a national research infrastructure in the frame of Euro-Argo activities.

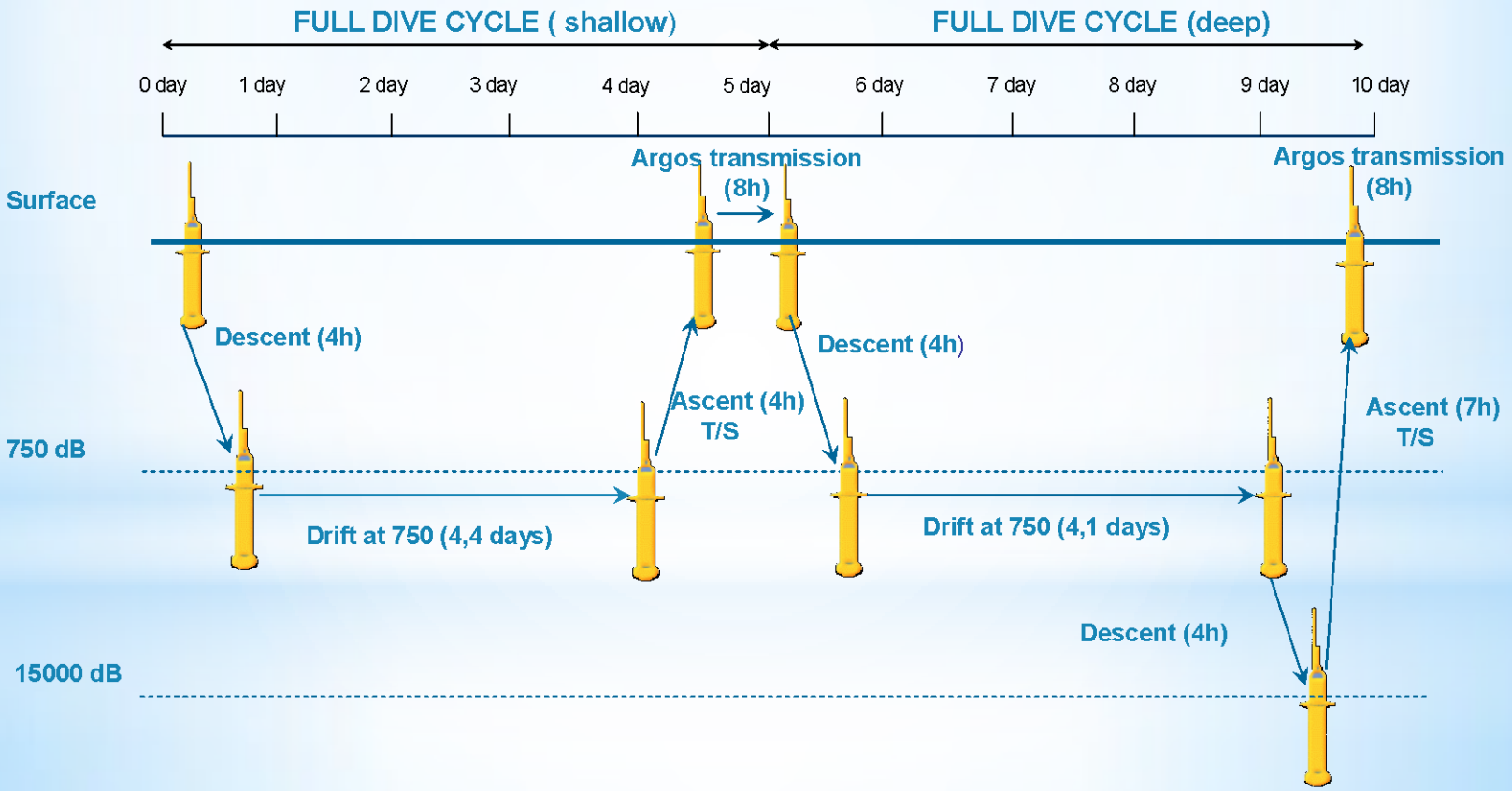
The partners:

- ✓Bulgarian Institute of Oceanology – BAS
- ✓Sofia University "St. Kliment Ohridski"
- ✓National Institute of Meteorology and Hydrology - BAS.

BulArgo Floats Specifications

Local ID	WMO	Telecom	Model	Cycle	Park depth	Profiling depth	CTD	Other sensors
Shabla	6900803	ARGOS	APEX	5 days	750 m	1500 m	Seabird 41	-
Emona	6900804	ARGOS	APEX	5 days	750 m	1500 m	Seabird 41	Anderaa 3830
Galata	6900805	ARGOS	APEX	5 days	750 m	1500 m	Seabird 41	-

BulARGO Sampling Cycle Characteristic:



Why do we need local DMS for BULArgo Program ?

- validate the 'delayed-mode' data from BULARGO float in collaboration with Sofia University "St. Kliment Ohridski"
- ensure timely delivery of 'delayed-mode' data to the BgODC databases.
- exchange and dissemination of the 'delayed-mode' data between the partners

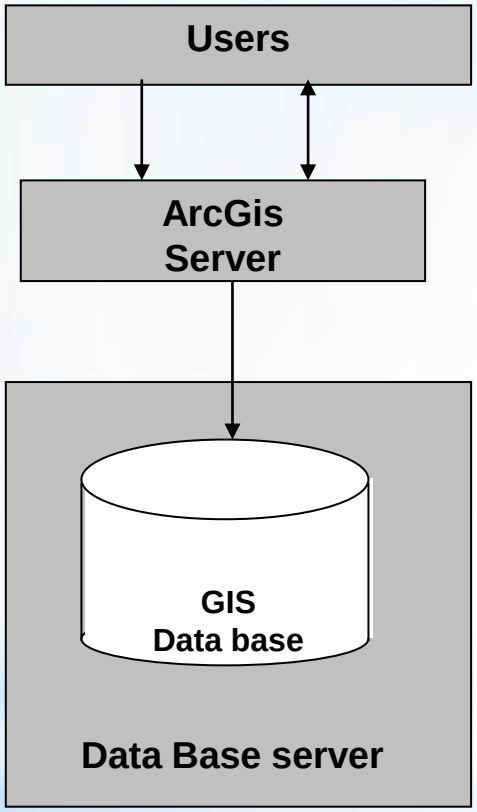
Standard Software

Win2008 (IIS7)

Esri Arc Info, ArcGis server 9.2

MSSql2008 with Reporting Services :

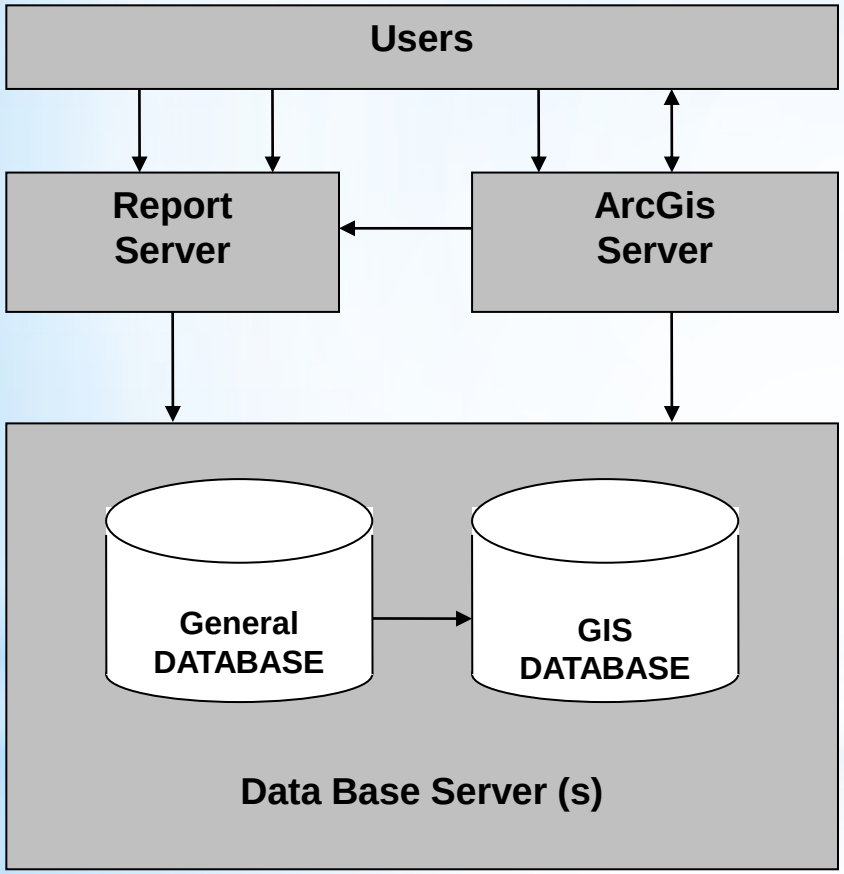
- Uses network-based model of web services.
- Serve data in real time (24/7)
- Allow access, download and manage usage data with a convenient ID and password.
- Reports may be "broadcast" to a subscribers during off-hours;
- Display graphic representations of the data
- View data at various levels of detail, such as in summary tabular form or in graphics views;
- Download data in a variety of formats, including HTML, or export to a spreadsheet application;
- Meet SEADATANET ODV standard for reporting oceanographic data.



Main steps

- Creating ArcGIS project
- Creating of service based on the project and corresponding web application on ARGIS server
- Updating periodically the ARGO delay mode data in the GIS project

WEB publishing – standard approach



Main steps

- Creating ArcGis project with XY event layer
- Creating of service based on the project and corresponding web application on ARGIS server
- All ARGO data are stored in standard data base with links to report server

WEB publishing – combined approach

The advantages of such an approach are:

- The development time is significantly shortening;
- No need to update the argo data in the GIS project;
- User can simultaneously visualize the data with GIS layer and access the data reports from the general RDBMS;
- Publishing GIS data to the Web should not change existing data workflow – how the data is created, maintained, and used by desktop applications
- ARC GIS server can be easy replaced with other services

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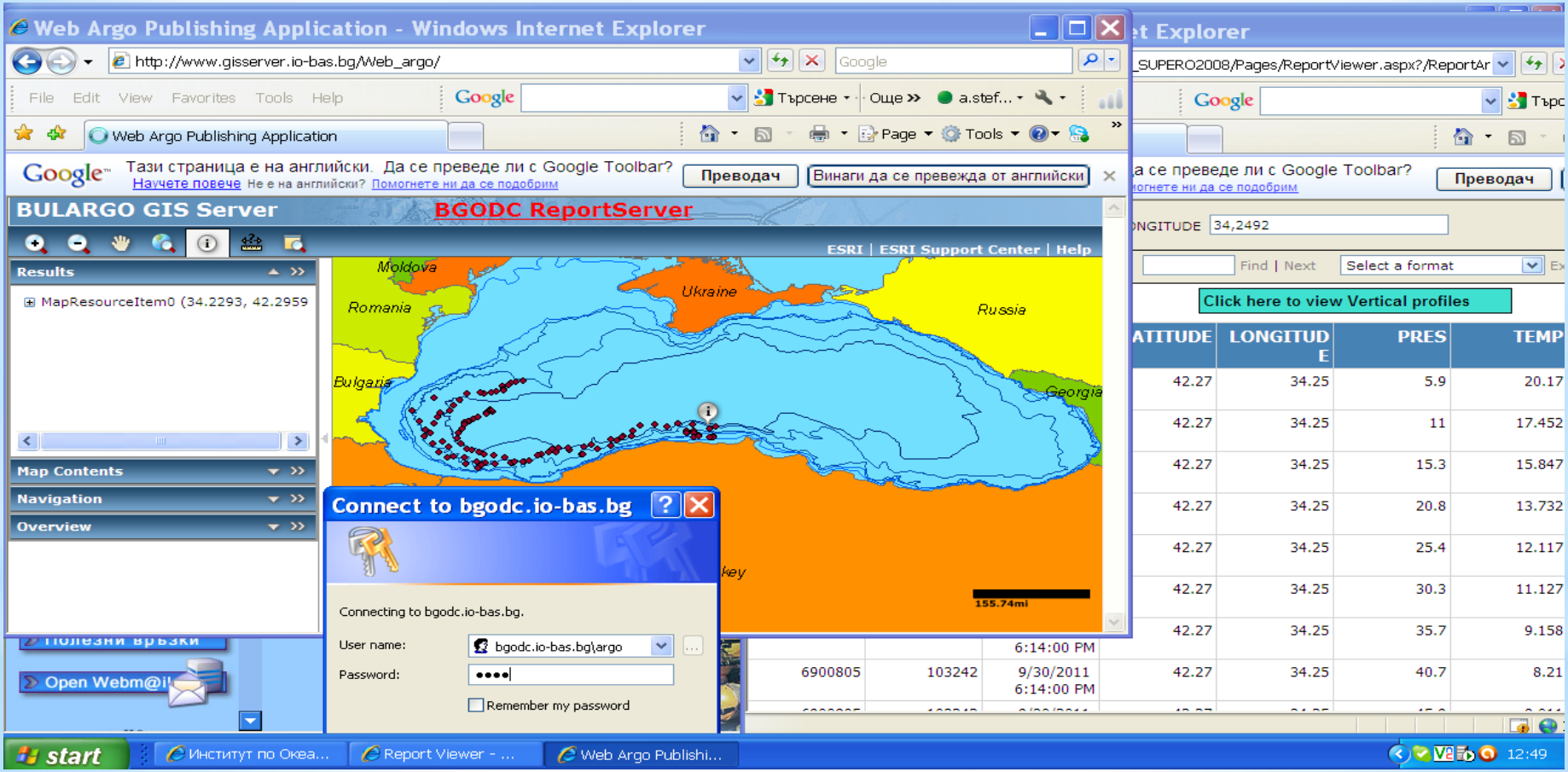
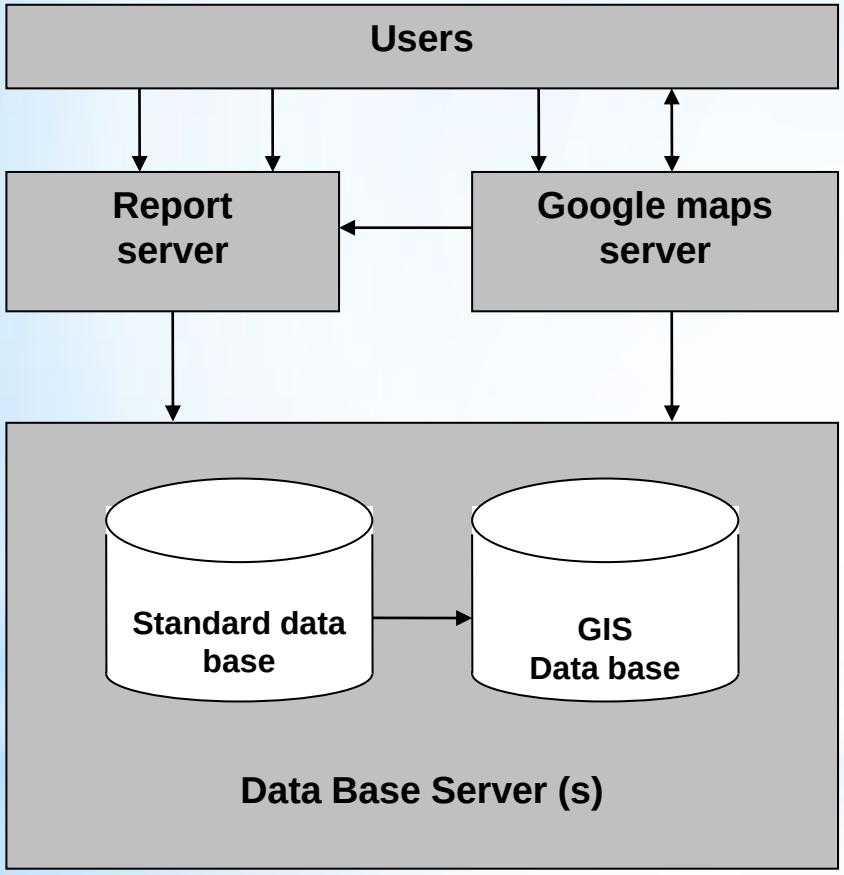


Screenshots - WEB publishing – combined approach

Next step

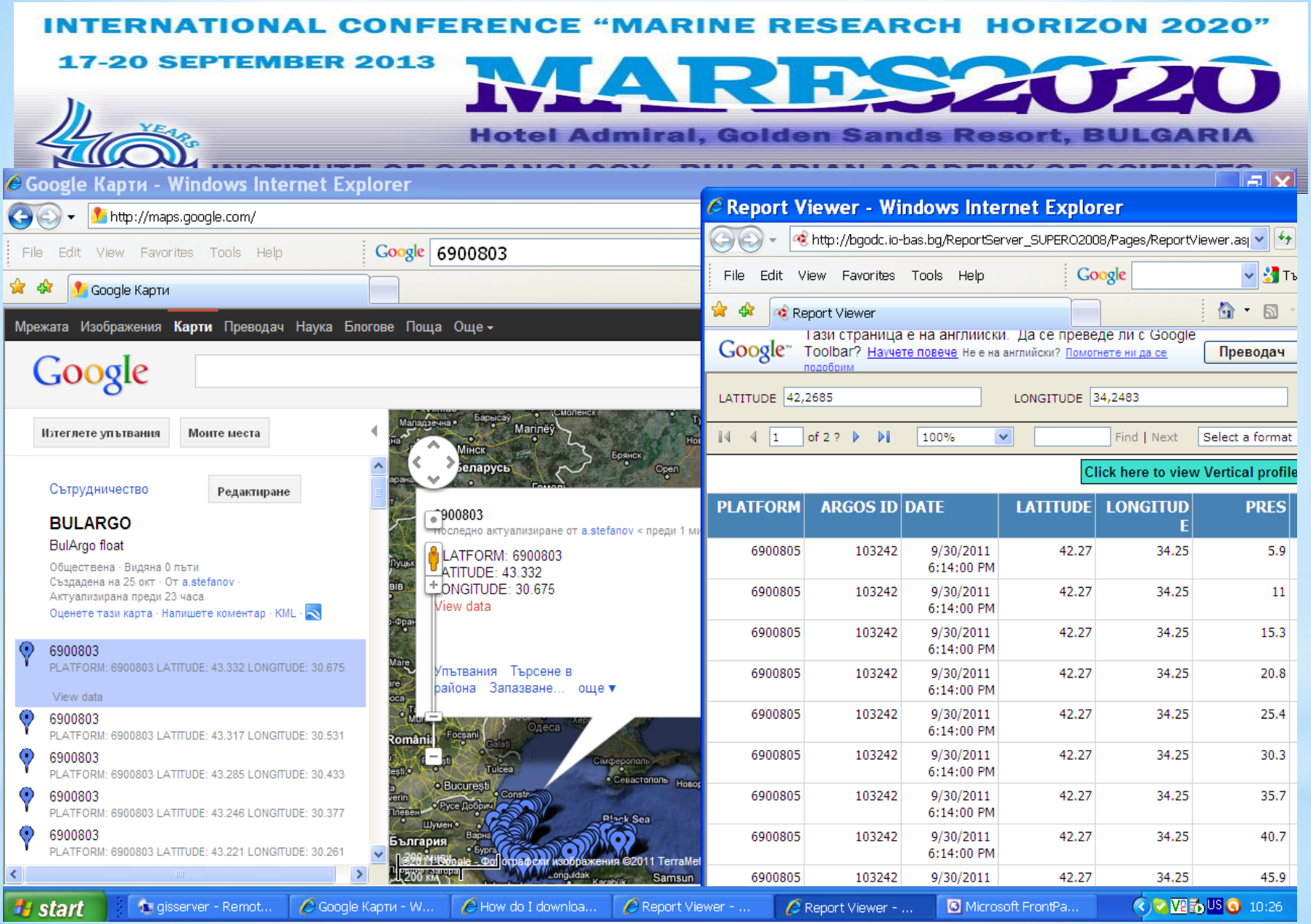
Google Maps



Main steps

- Creating ArcGIS project with XY event layers
- Creating of service based on the project and corresponding web application on ARGIS server
- All the data are stored in standard data base with links to report server
- Convert an ARCGIS map into KML file and upload the file to the maps.google.com

WEB publishing – combined approach with Google



Screenshots - WEB publishing with Google

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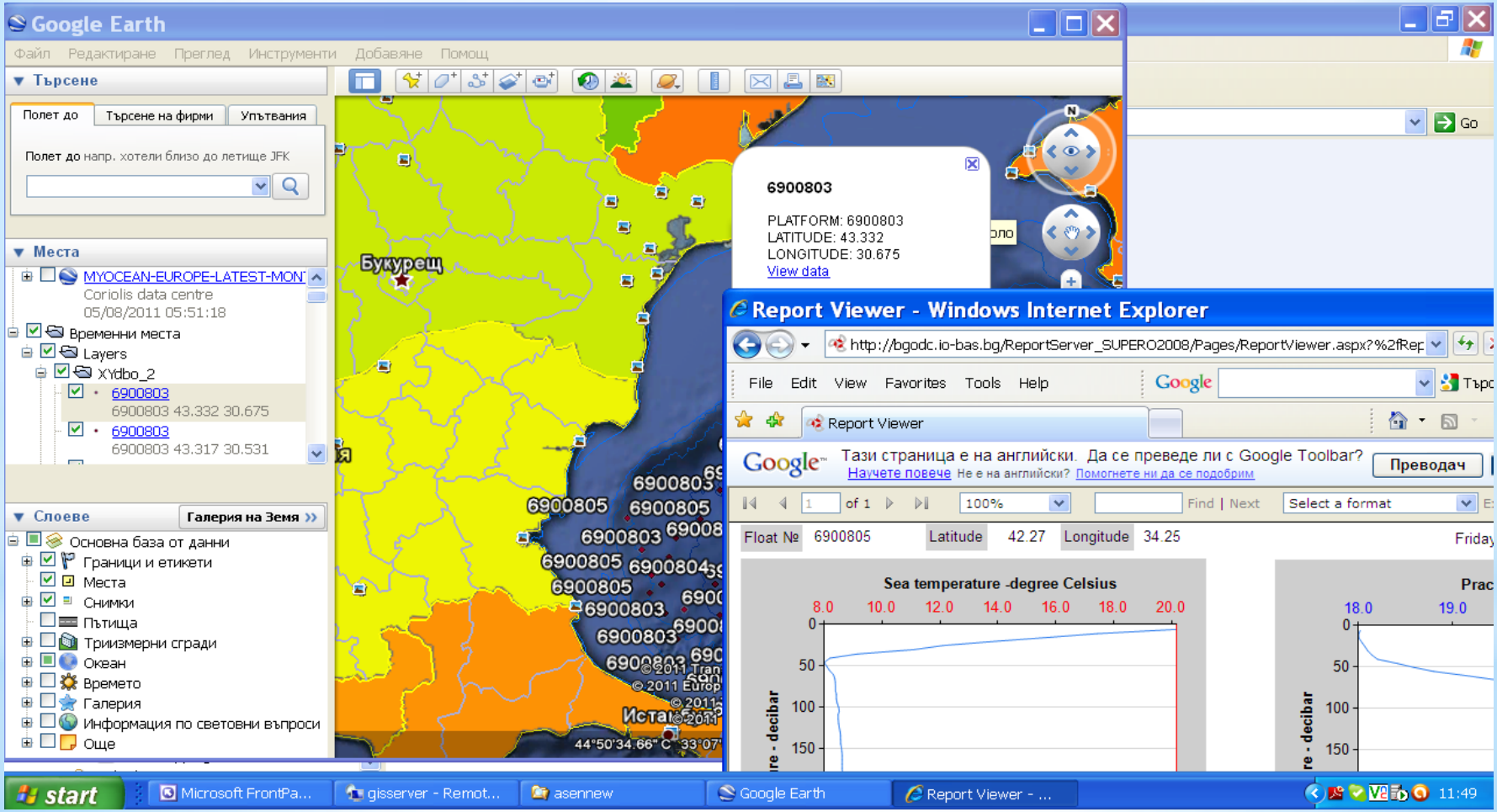

Screenshots - WEB publishing with Google

CONCLUSIONS

- WEB centric DMS ensure flexible and operative infrastructure for data and information exchange between data providers and end users;
- Combined approach allow the user to have simultaneous access to both data from a GIS server and data from the general RDBMS.
- Web-based GIS software products provide easy-to-use tools that create the map and data query functionality.
- Viewing data with Google tools provide additional flexibility.

<u>In the future we will rely on capabilities of the Regional Argo Center</u>

HOW TO GET BULARGO DATA:

1. CORIOLIS DATA CENTER
   http://www.coriolis.eu.org/Data-Services-Products
   floats № 6900803, 6900804, 6900803

2. BUL_ARGO в BGODC- http://gisserver.bgodc.io-bas.bg

3. BULARGO в Google - http://g.co/maps/9zh3z

User: argo
Password:Io2013

Thank you for your attention