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-mail: m2r42k@i.ua

Desktop 9.3 (

ESRI ArcGIS

lyst

( , 3D Analyst, Spatial Analyst, Terrain Ana-  
ESRI ArcGIS Desktop)

[3].

ESRI ArcGIS Desktop 9.3  
(Personal Geodatabase) "TD.mdb" ("

139 , 1:25 000 (

1957 .) [6], 1:50 000 ( 2008 .)

[4] 2009–2010 .. ( )

1957 2008 .. ( 1957 .),

[1, 7]) ( .1).

1) 1:25 000 ( 1957 .) [6] – 600 dpi (dots per

1942 . – inch) – 600×600 ( ) 2,54 ;

2) 1:50 000 ( )

[2] – (300 dpi);

3) [4] (14 590×14 334 ) (300 dpi).

1942 . ( 1942),

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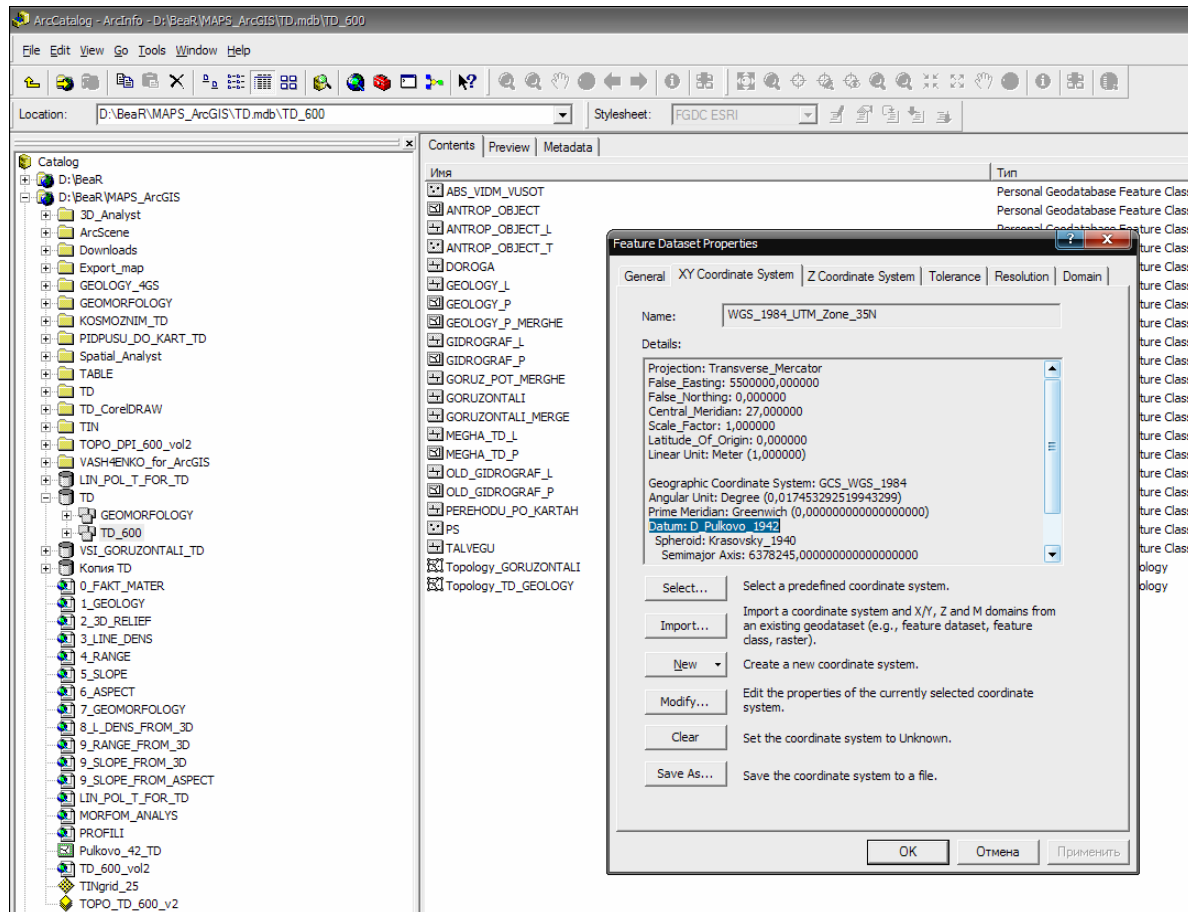
0,8 ( . 2) , 1 000 <sup>2</sup>,

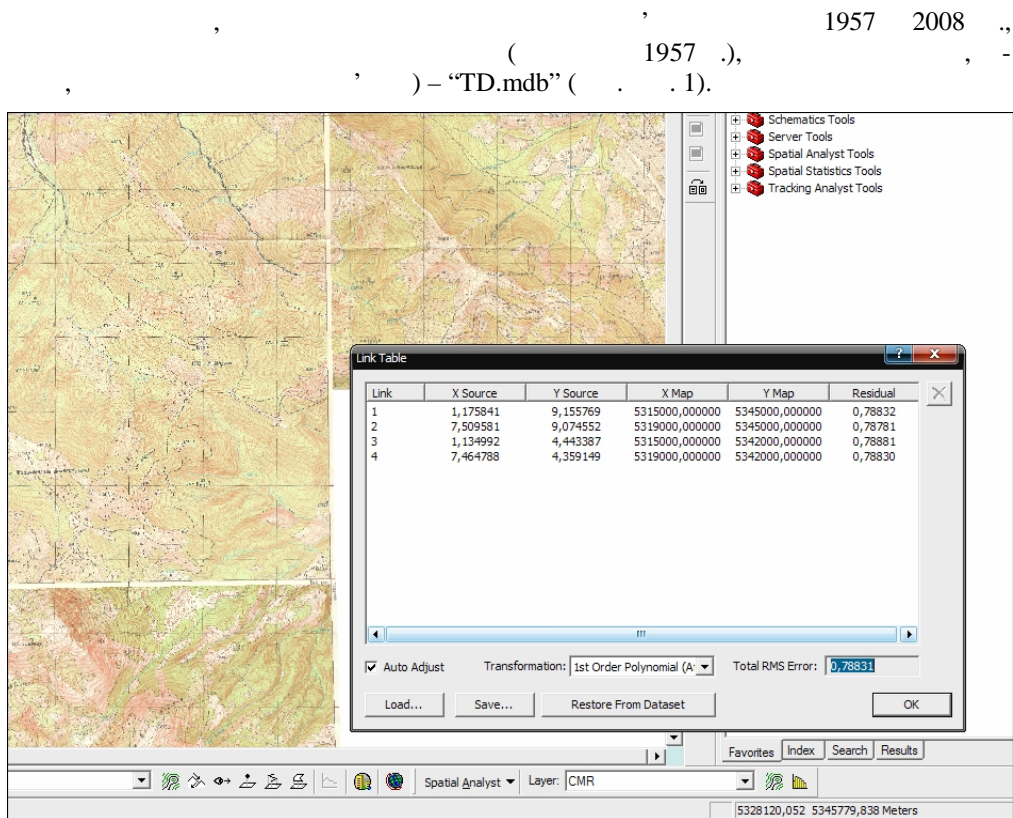
(

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( . 3), – 1 ( . 4). – 5

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.2. ' [6] 1942 .

(map units – (Stream tolerance) “ ” (“Sketch”) 10  
( .5). , 10  
( .5). ,

“Map Topology”

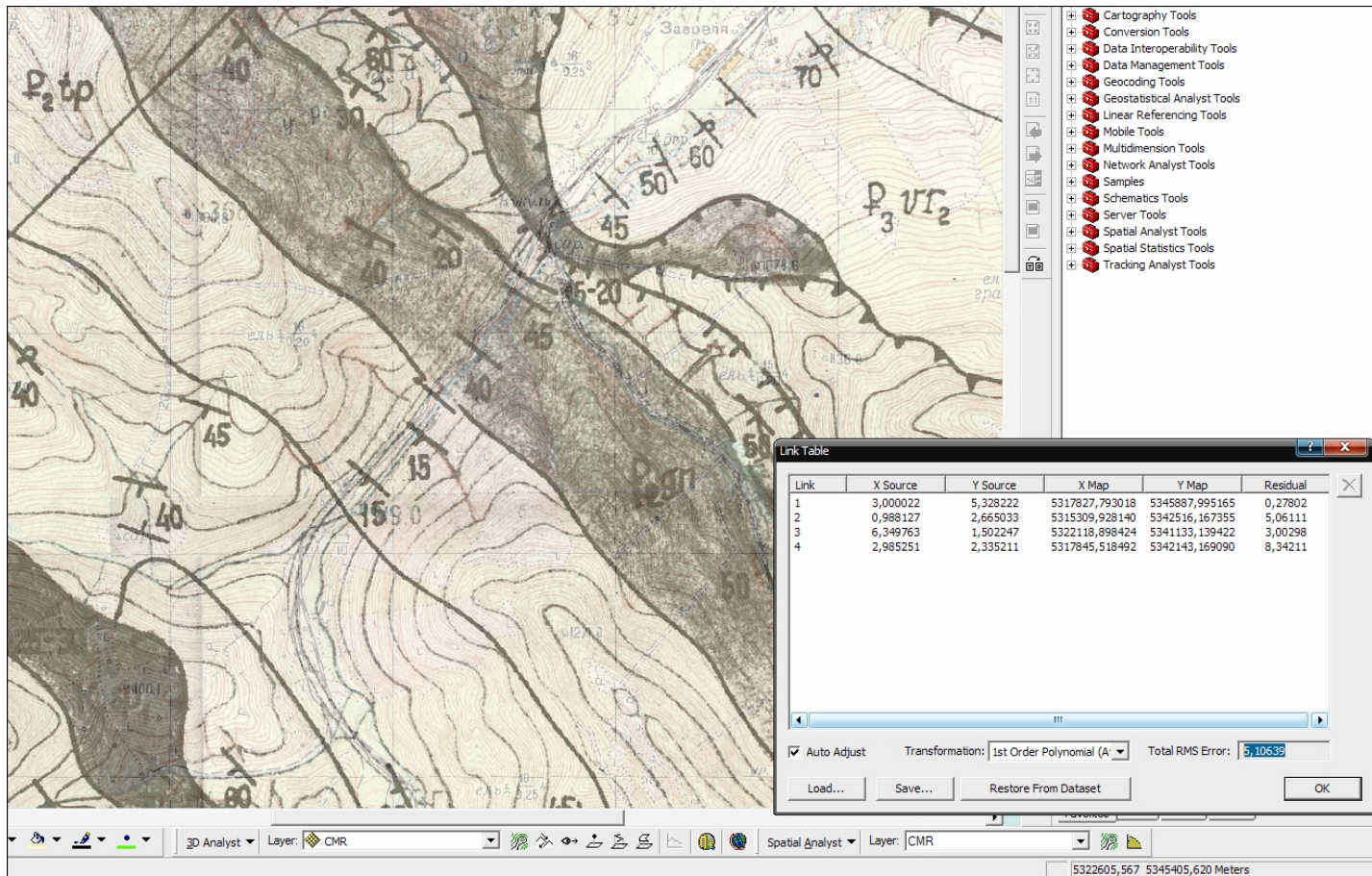
“TD.mdb”  
1:50 000 ( ) [2]

[4]

[6]:

2008 . ( .7)

( ), “ ( ” ,

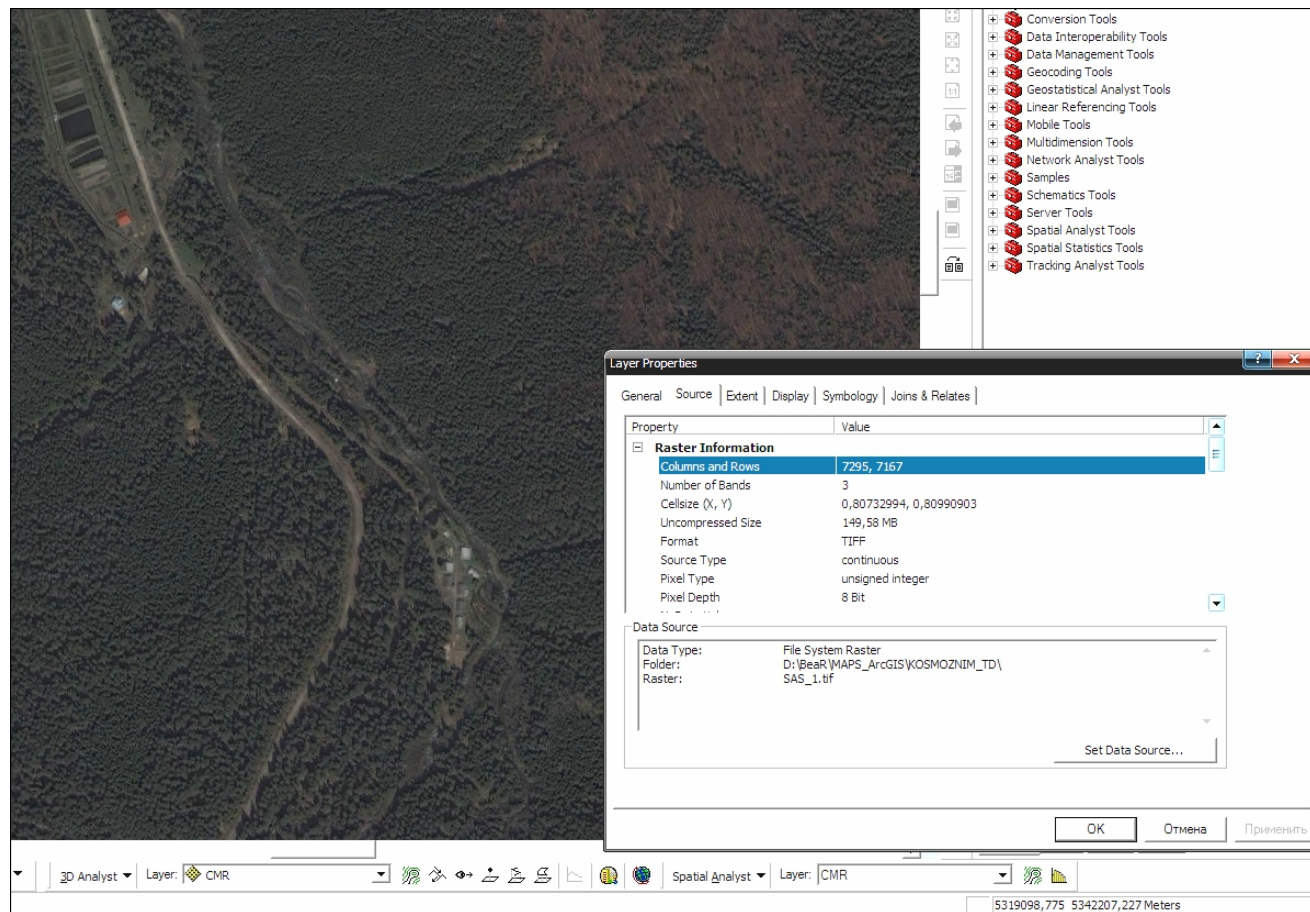


.3.

[2]

1942 .

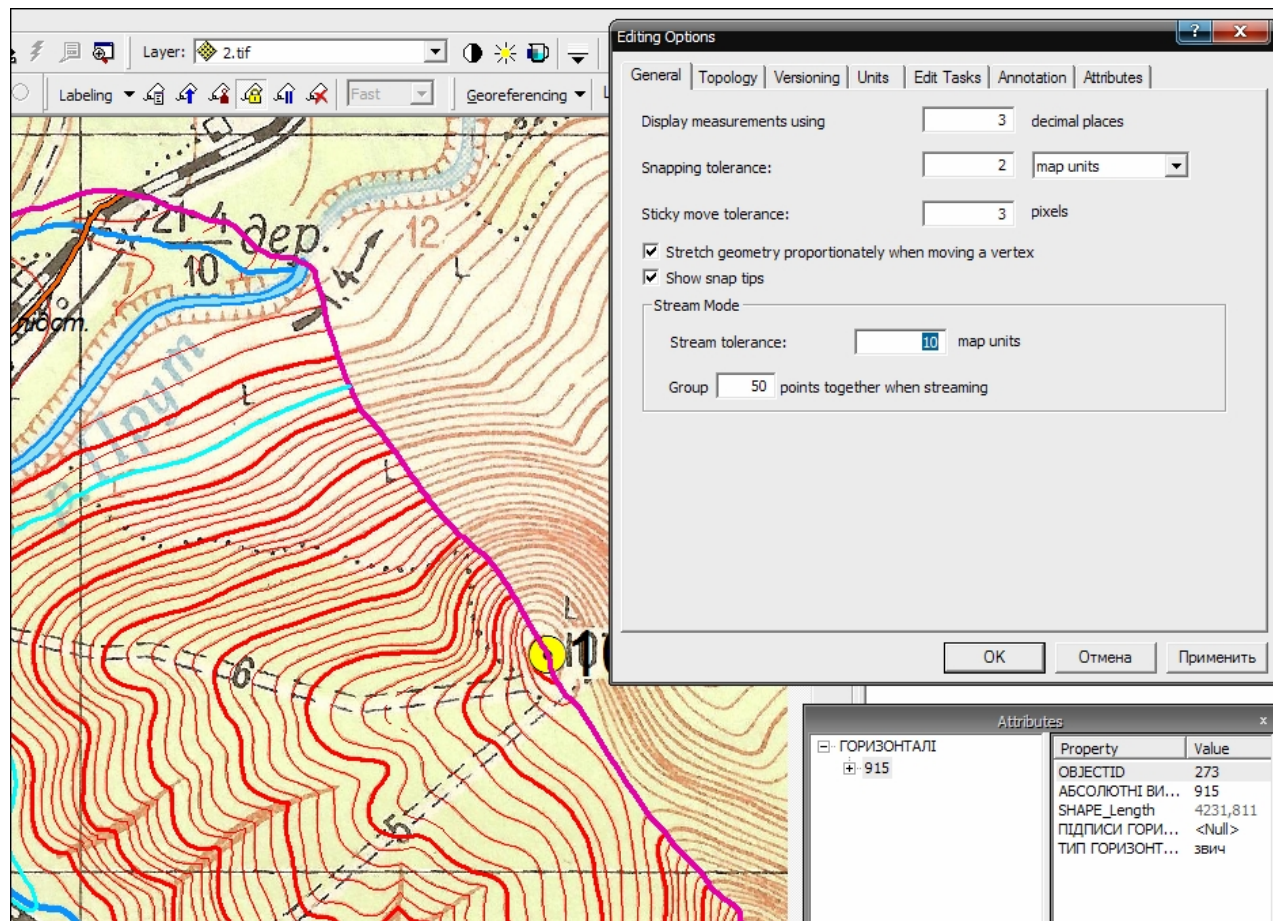




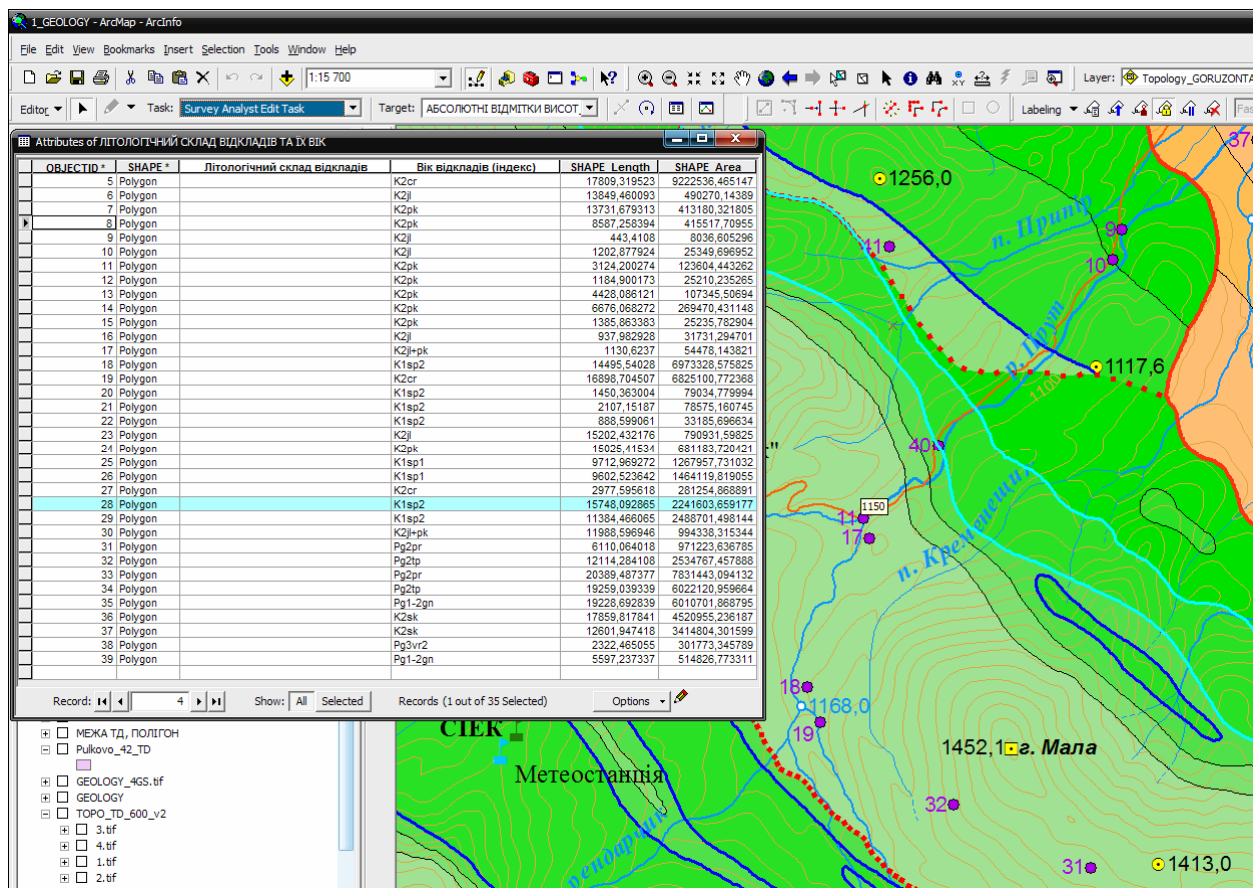
.4.

[4]

1942 .



.5.



. 6.

1:50 000 (

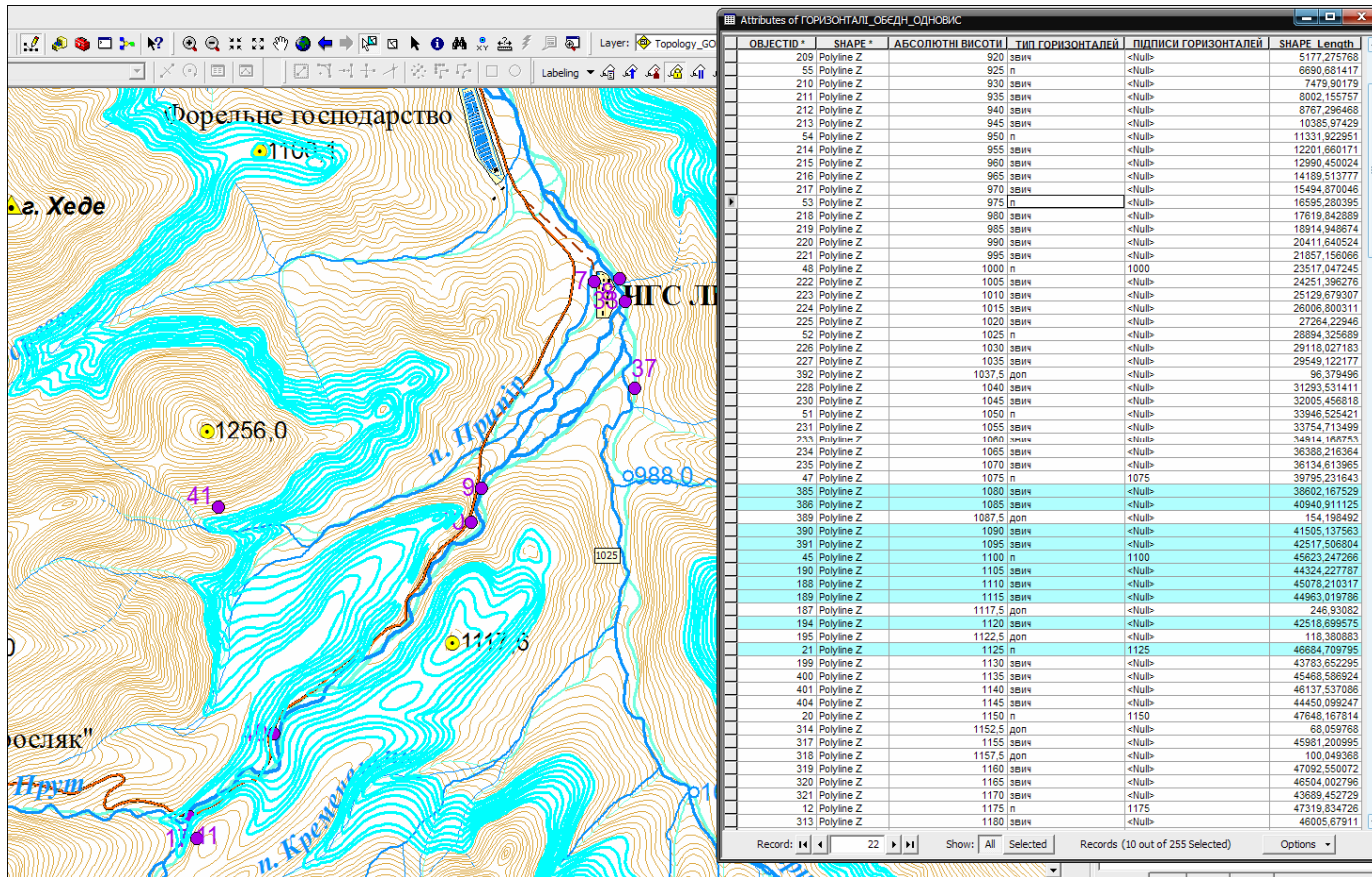
) [2].





.7.

2008 .( [4]).



.8.

“ ” “TD.mdb”.

ArcGIS 3D Analyst ( ESRI ArcGIS Desktop 9.3) -  
 1:25 000 [6] ( 919 (78 )).  
 4 615 747 ) ( . 8) (139) , (2) ,

(TIN),  
 815 360 882,5 2 061,0 ( . 9, 10).  
 TIN – , (26,6 ) ,

(tin) .

1) – (“Color Ramp”) “Symbology” (“ ”) (“Pro-  
 perties”) tin ( . . 10) ( – TIN);

2) –  
 “Line Density” ( , ) Spatial Analyst  
 “ArcToolbox”, , . 11 ( – GRID);

3) –  
 “Line Statistics” ( , ) Spatial Analyst  
 “ArcToolbox”, , . 12 ( – GRID);

4) – “Surface Analysis/Slope”  
 “Spatial Analyst”, , . 13 ( –  
 – GRID). [5];

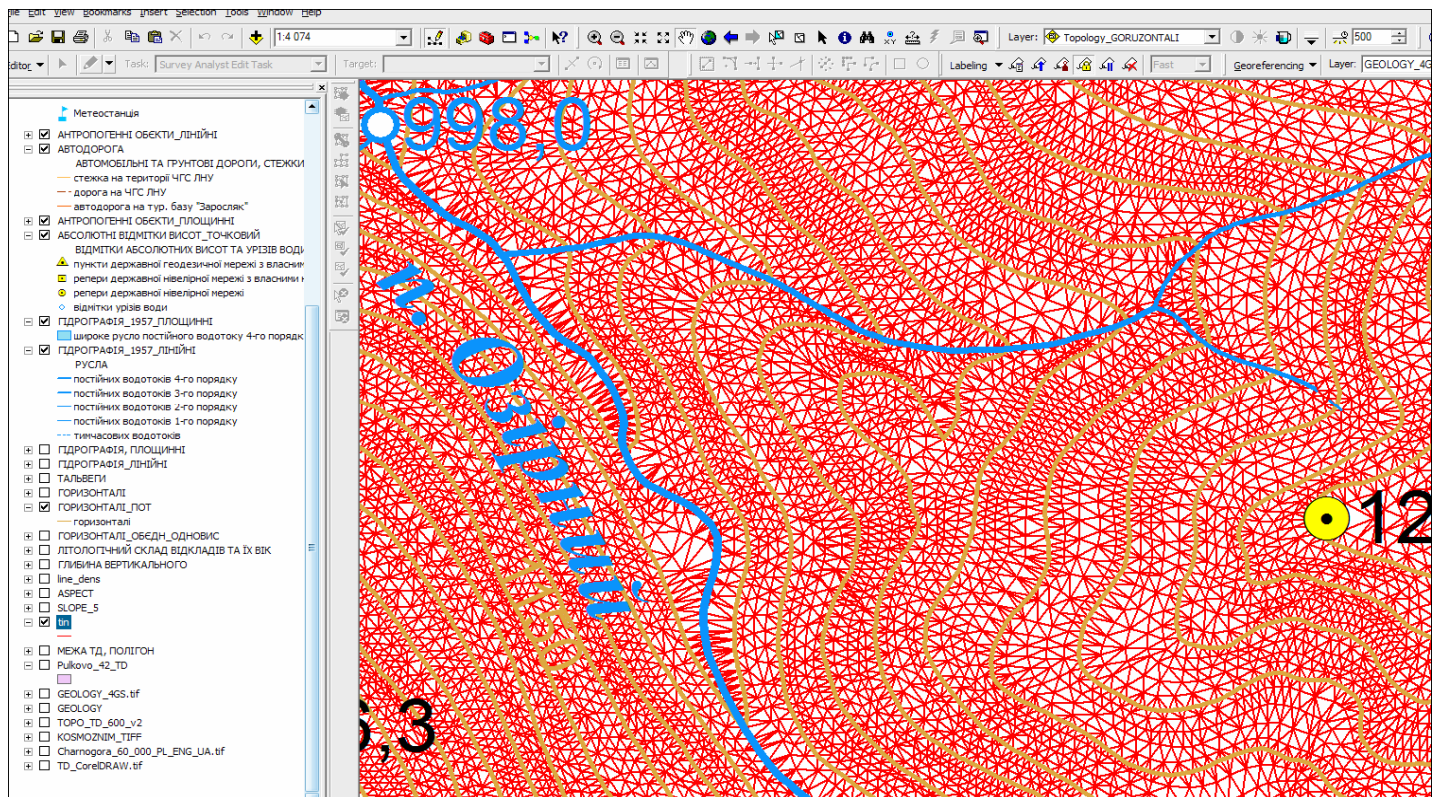
5) – “Surface Analysis/Aspect”  
 “Spatial Analyst”, , . 14 ( –  
 – GRID).

:

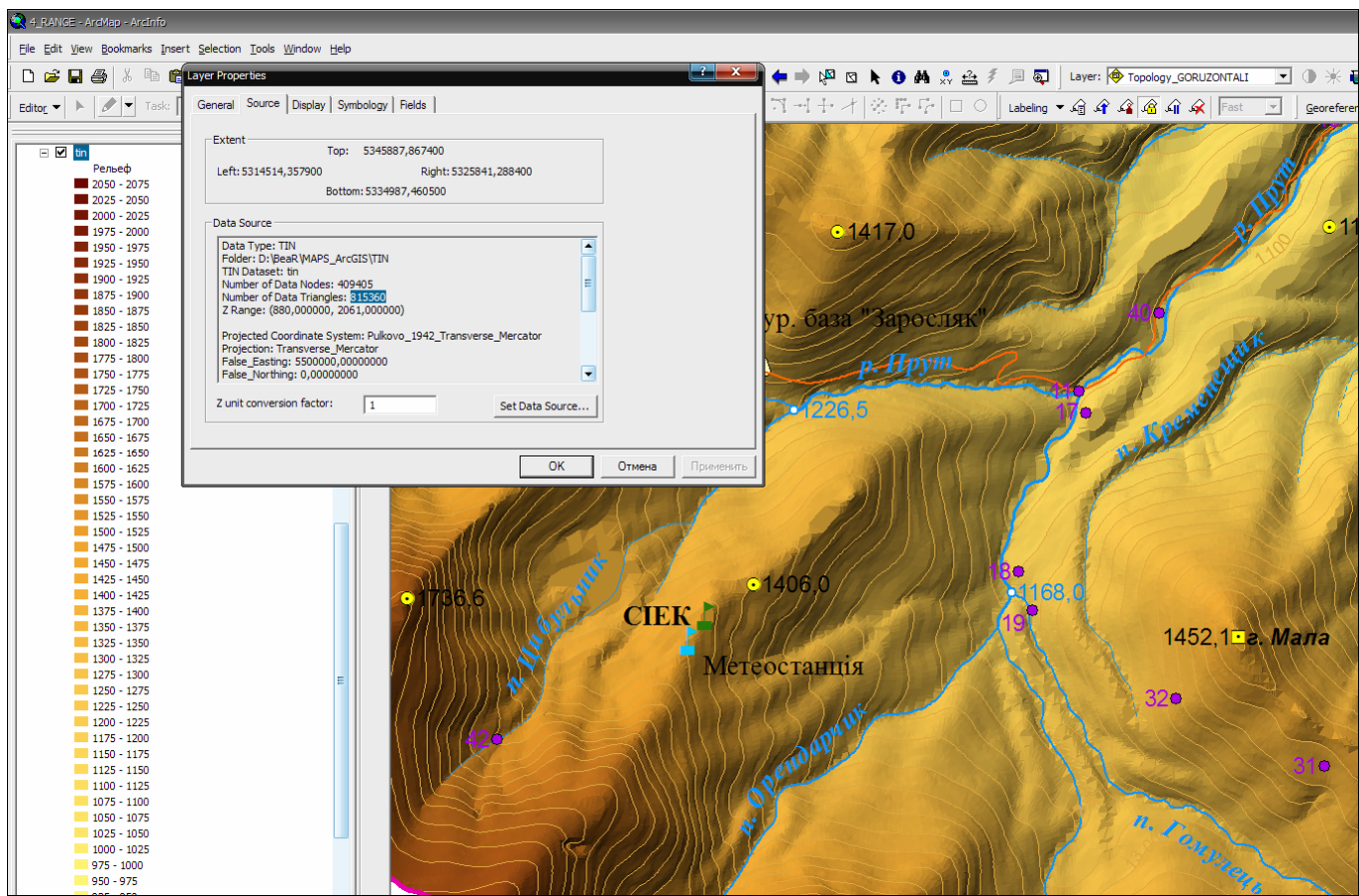
1) , , ;

2) , ( – . )  
 , – )  
 “Create Profile Graph” 3D Analyst  
 ( . 15);

3) , –  
 ;  
 4) : –

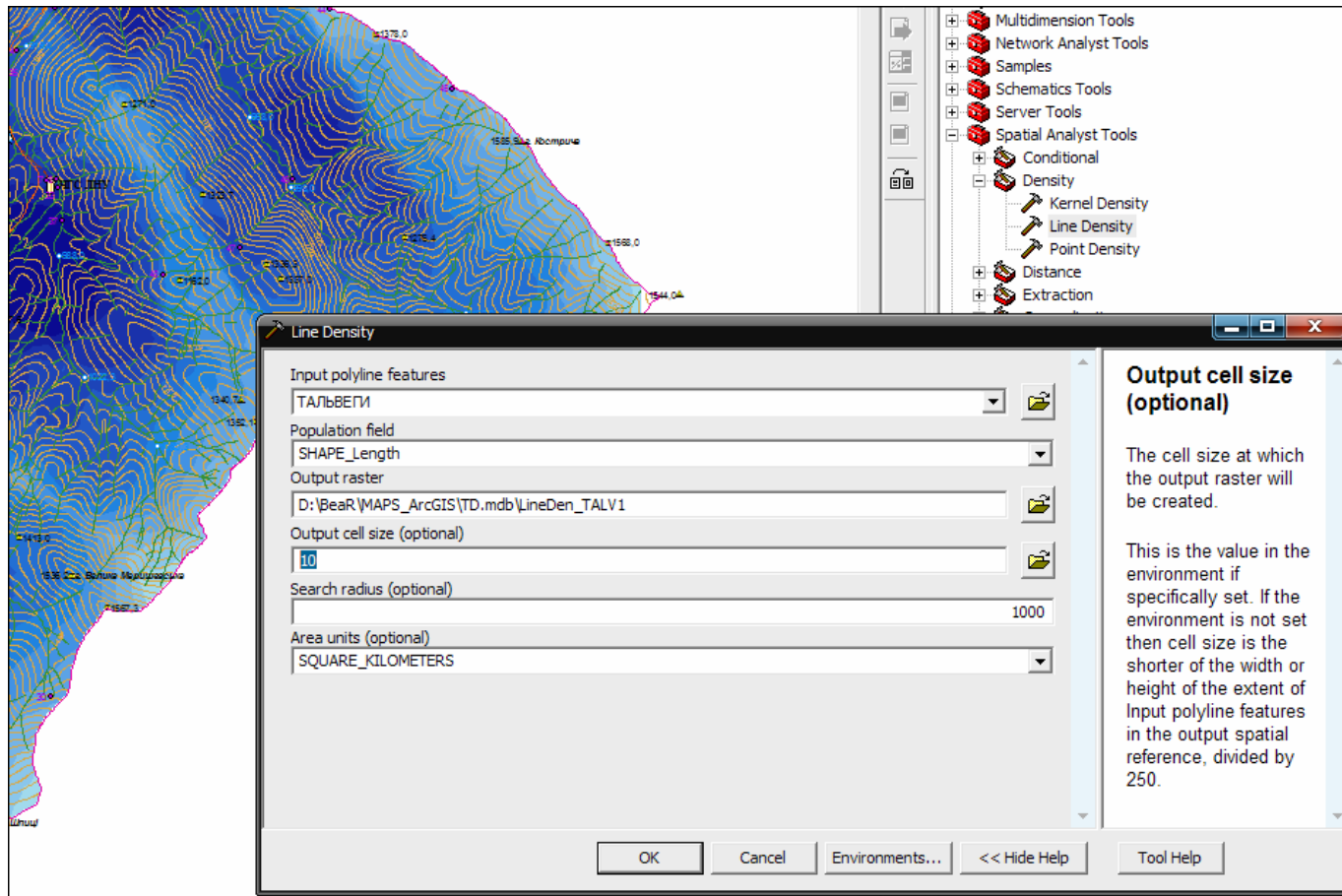






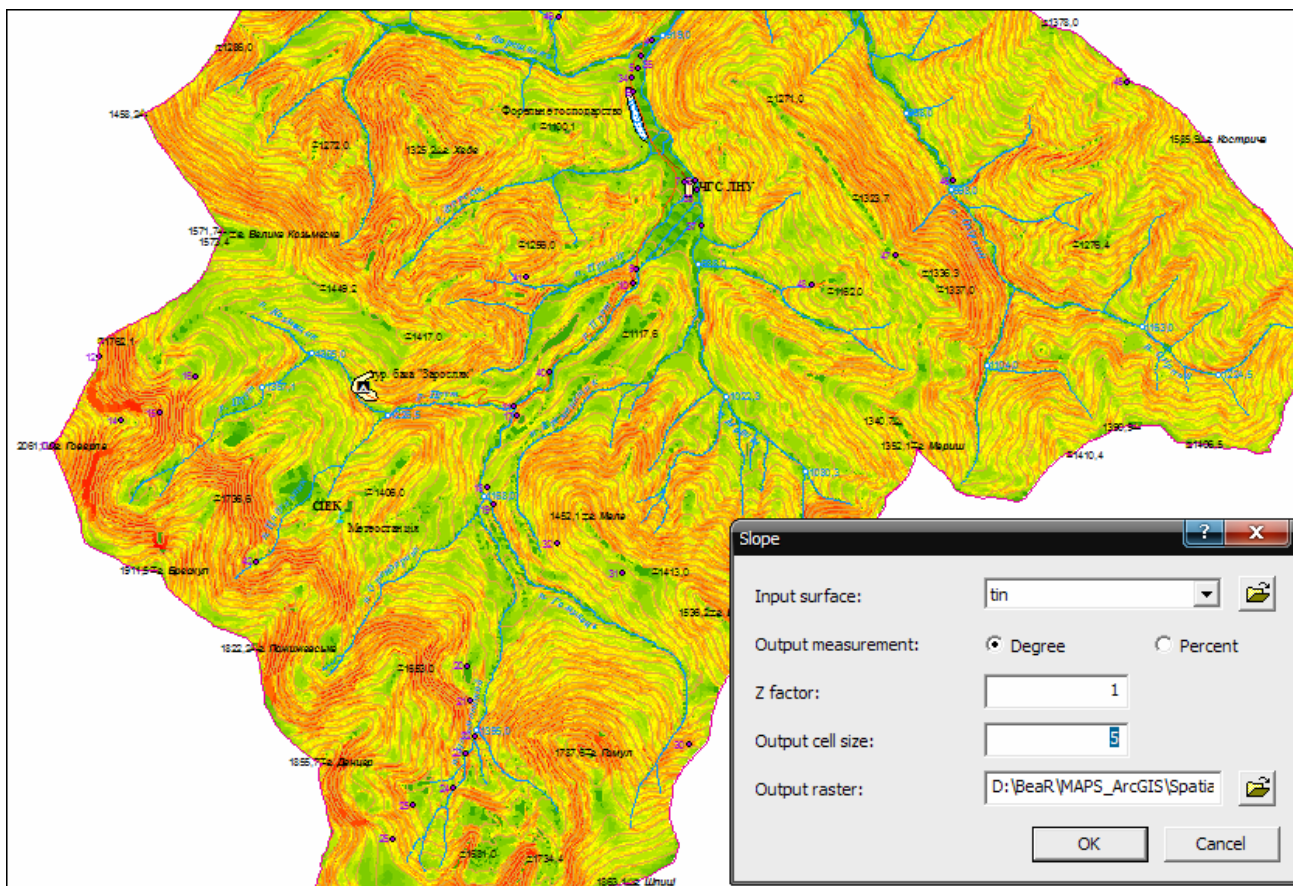
. 10. TIN,



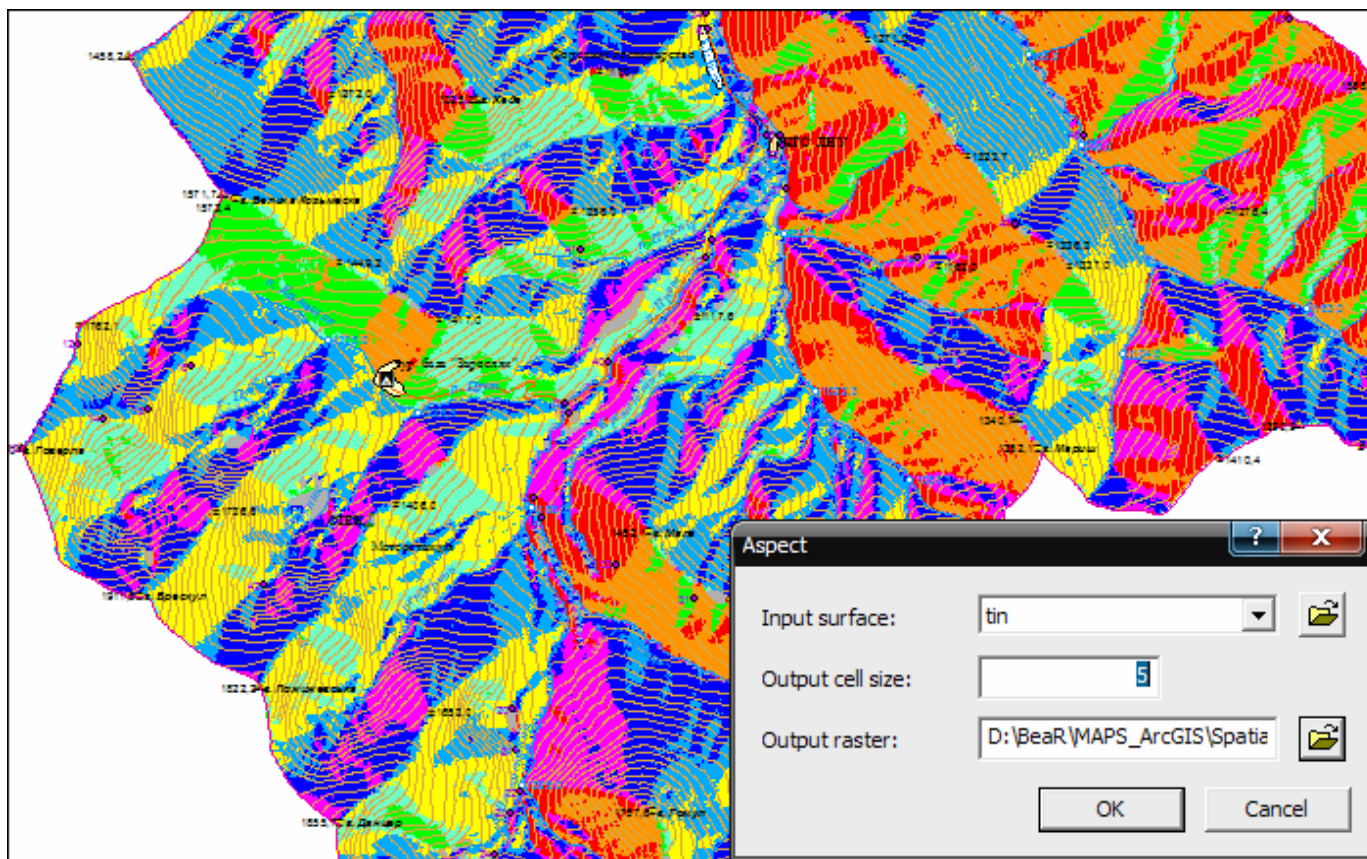


. 11.



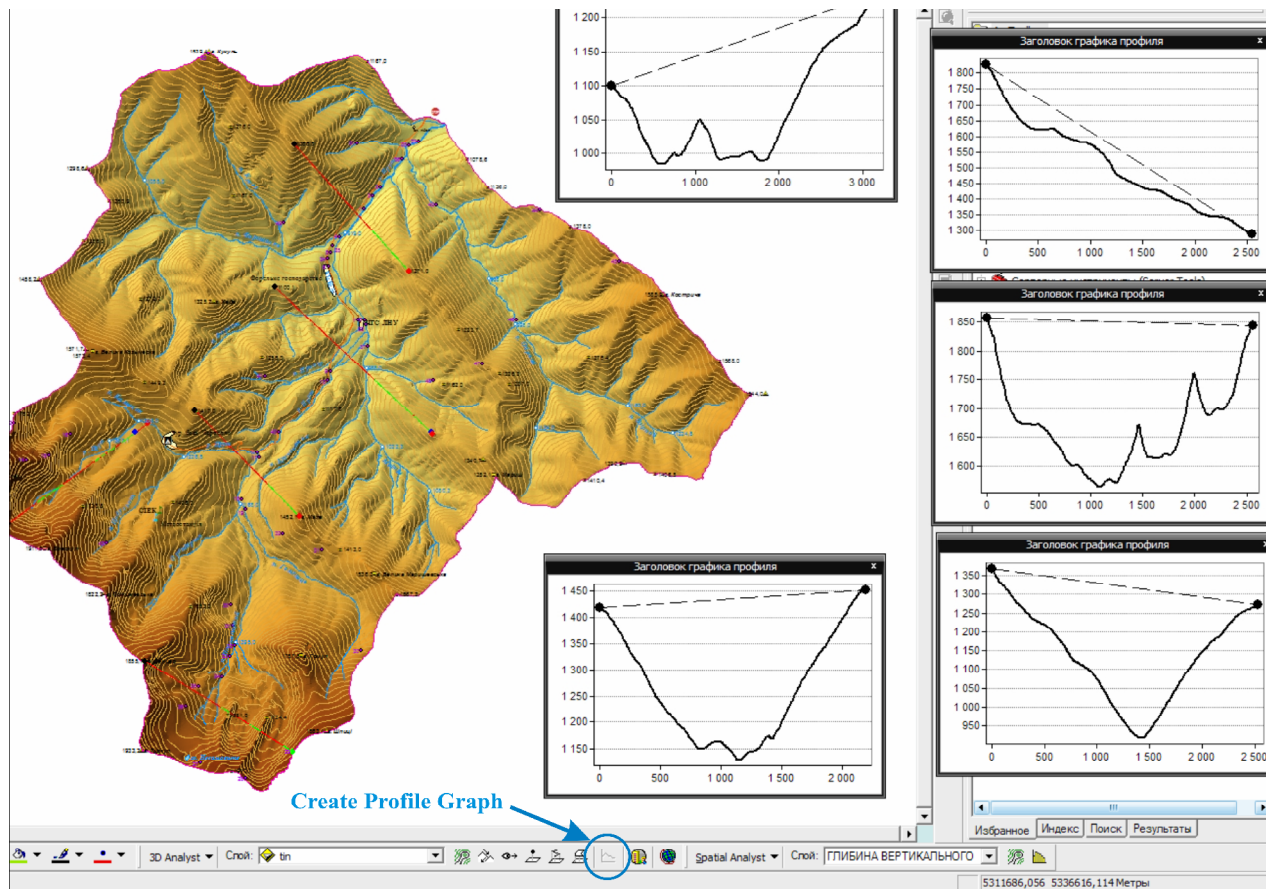


. 13.



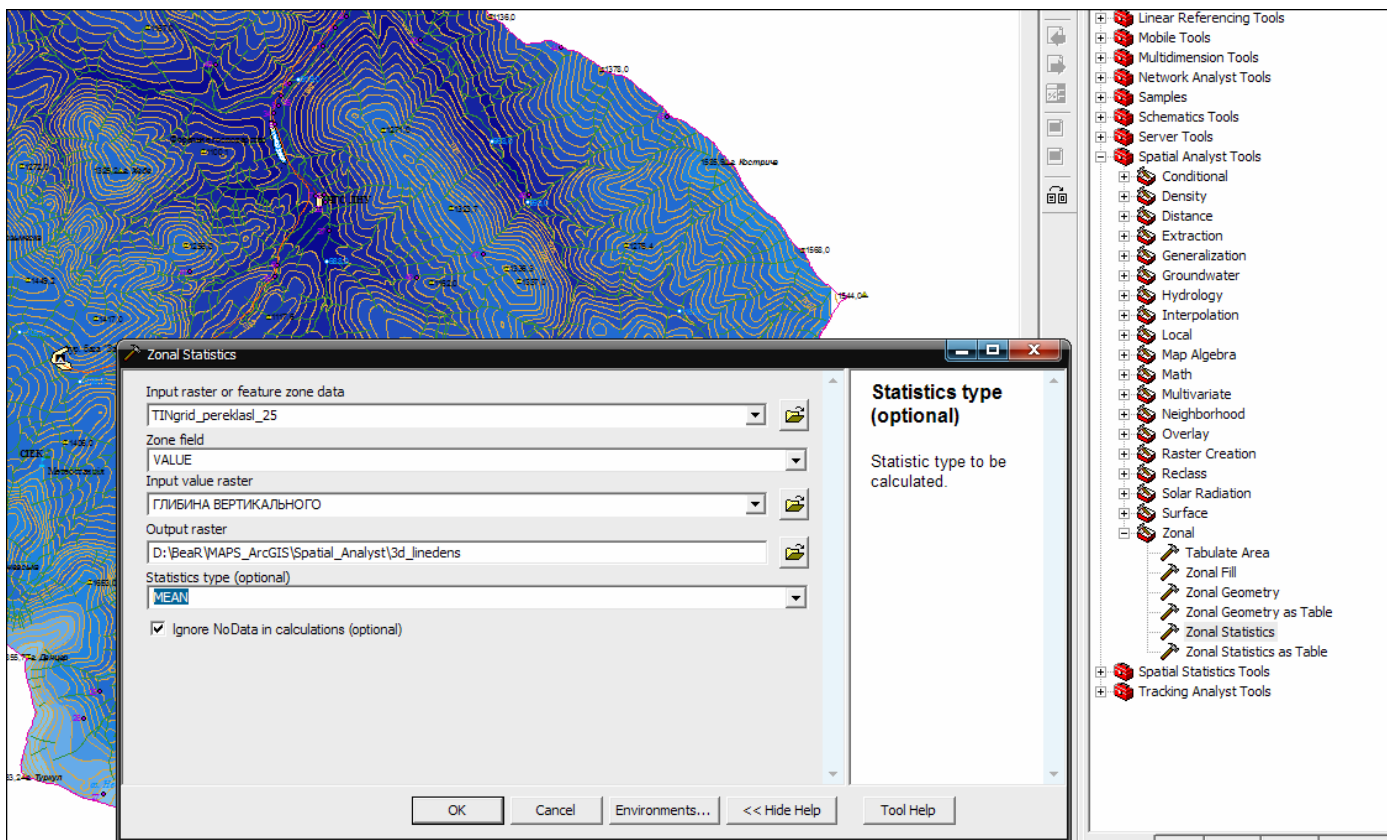
. 14.

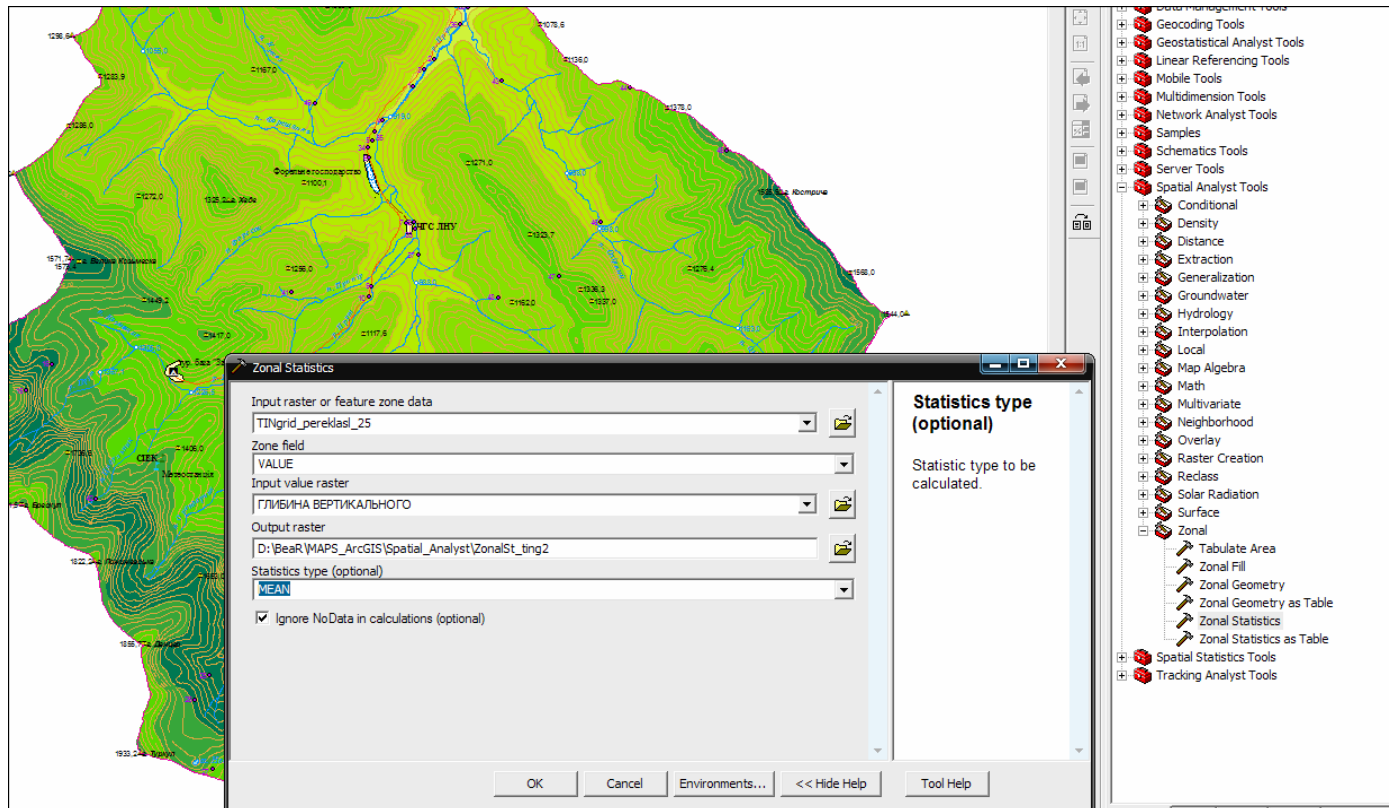


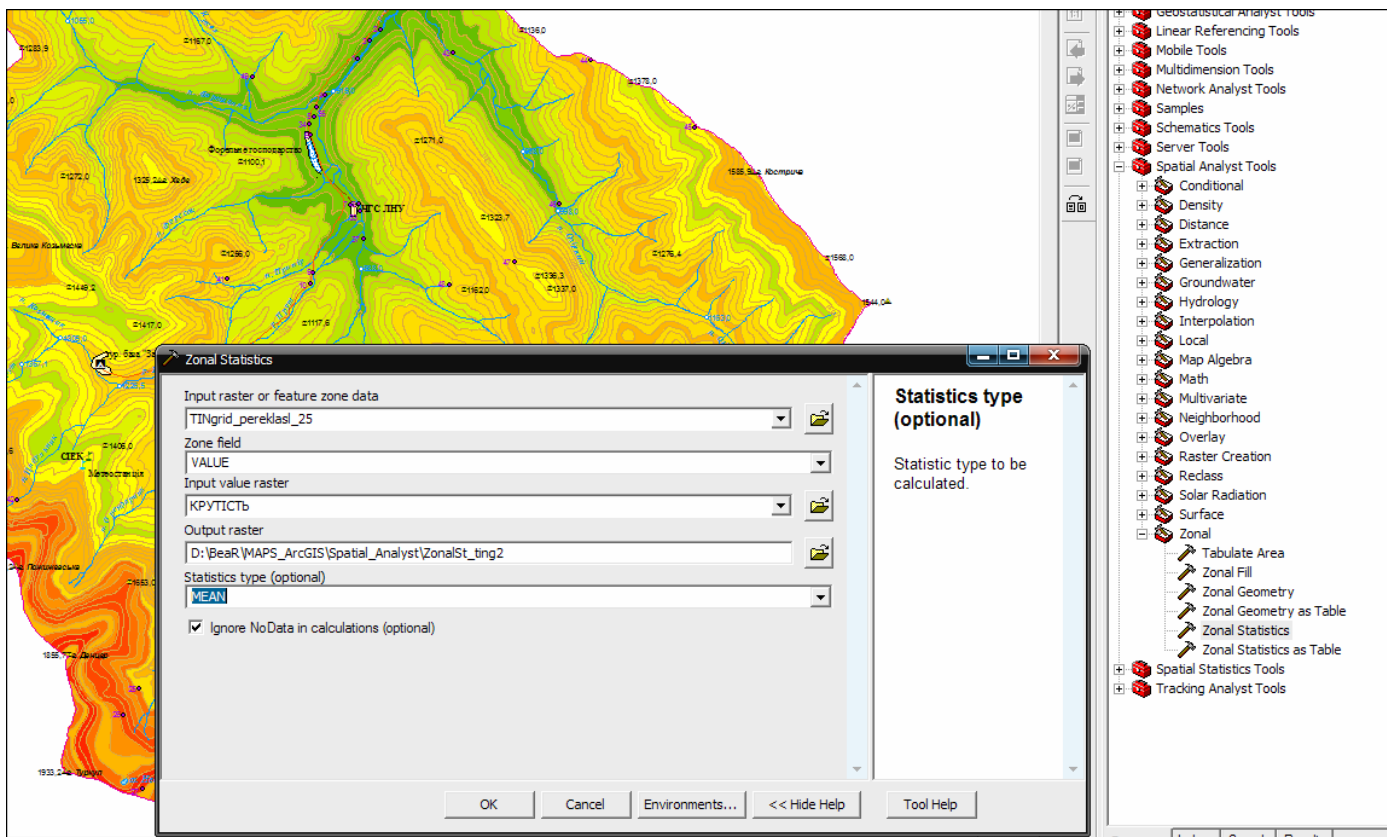


. 15.









Analyst, "Zonal Statistic" ArcGIS Spatial  
 "ArcToolbox" ( ESRI ArcGIS Desktop 9.3),  
 . 16–18.  
 (tin),  
 ( " ) GRID ("ArcGIS Spatial Analyst/Convert/TIN to Raster")  
 – 25 , "Symbology"  
 (" " ) ("Properties") "TINgrid\_pe-  
 reklas\_25".  
 ESRI ArcGIS Desktop 9.3 ( )  
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1. ( ) / // , . – 2003. – . 63. –  
 . 183–187.
2. : . . . ( ) , 1985. 1:50 000. /
3. . . . / . . . // . . . – .  
 . – 2008. – . 35. – . 159–164.
4. : http://www.google.com/earth/index.html / Google Earth [ ] . –
5. . . . : . . . [ . . . . . ] /  
 . . . : , 2006. – . 30.
6. 1:25 000 .  
 ( 1957 ) [ ] /  
 , 1972.
7. . . . /  
 . . . // Arc Re-view. . –  
 2008. – 4 [47]. – . 6.

: 27.09.2011  
 20.10.2011

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**THE METHODS OF RELIEF MORPHOMETRIC ANALYSIS'  
OF BASINAL SYSTEMS' WITHIN MOUNTAIN TERRITORIES USING GIS  
(CASE STUDY OF THE CHORNOGORA'S PART OF PRUT'S BASIN)**

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In the article is given the methods of fulfillment consecutive stages of the relief morphometric analysis of basinal systems' within mountain territories using software package ESRI ArcGIS Desktop 9.3 (case study of the Chornogora's part of Prut's basin). The results of fulfillment this algorithm is developed digital elevation model, range of analytical and synthetic morphometric maps and hypsographical profiles, circular charts, bar diagrams, plots and tables of relief's various morphometric parameters as well as apportionment for their further complex morphogenetical analysis.

*Key words:* morphometric analysis of the relief, geoinformation systems, geoinformation data base, digital elevation models, morphometric parameters of the relief, analytical and synthetic morphometric maps.