

REQUIREMENTS FOR THE ACCURACY OF THE EXISTING AND NEWLY BUILT PLANNED GEODESIC NETWORKS IN THE AREA

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Annotation: this article covers in detail the requirements for them when building state geodesic nets. Concepts are also given about the accuracy and mechanism of operation of the height networks of State geodesic networks.

Keywords: state geodesic lattice, triangulation polygonometry trilateration plan, map, topographic, geodesic, aerophotogeodesic works.

Introduction.

Height justification is created to thicken the base of the plan and height to the density, which, as mentioned above, provides for the study of the situation and relief by one method or another. If it is planned to study the situation and relief on the object using satellite technology, it is not necessary to create geodesic networks of thickening, substantiate the study and thicken it, since in terms of range and accuracy, satellite detection methods make it fundamentally possible. Conducting Geodetic work on the basis of a state geodesic-nivelirating network with a direct corresponding density. At the same time, there should be no factors at the points of this network that reduce the accuracy of satellite detection.

The planned coordinates and heights of the research baseline points using Global navigation satellite systems are determined by construction. Limiting errors in the state of the planned research basis points, including Planned identification marks, to state points. The geodetic network should not exceed 0.2 mm on the map or plan scale in the open field and residential area, and 0.3 mm when studied on a large scale in an area covered with tree and shrub vegetation [1-5].

The main part.

The justification of the request must be carried out taking into account the project. Guidelines requirements are specified depending on the scope and method of the prospective request. Special requirements must also be taken into account. To

Geodetic networks of design and other organizations. Before the design, the following works are carried out:

- collection and analysis of data and materials on all Geodetic works previously performed on the research site;
- study of the future field of work based on the available maps and literary sources of the largest scale;
- study of workplace specific study materials, including research and instrumental search for Geodesy. Signs of previously performed work;
- choosing the most expedient option for the development of Geodetic structures, taking into account the prospects for the development of territories.

When creating the basics of research using satellite equipment, it is necessary to comply with a number of specific requirements:

- The type and operation of the satellite must be determined. Equipment used for work [6-10].
- It is necessary to choose the method and method of development of satellite detection in accordance with the given shooting scale and the height of the relief cross-section. rationale for filming (Table 1)

Recommendations for the application of methods for developing the justification of the request.

Shooting scale, elevation	Planned justification		Planned-multi-storey or multi-storey foundations	
	Method of development of photography justification the use of satellite technology	Satellite definitions	Development method photography justification usage satellite technologies	Satellite definitions
1:10 000, 1:5000; 1 m	Directed	Fast static or repeated occupation	Network	Fast static or repeated occupation
1:2000, 1:1000, 1:500; 1 m and high	Network	Fast static or repeated occupation	Network	Fast static or repeated occupation
1:5000; 0,5 m	Directed	Fast static or repeated occupation	Network	Static

1:1000, 1:500; 0,5 m	Network	Fast static or repeated occupation	Network	Static
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Based on the materials of the topographic and geodesic knowledge of the object of work, it serves to develop the basis of research, to select the points of the geodesic base as follows. Geodetic bases are used to study the situation and relief using satellite definitions and to develop research bases; must meet the requirements of unobstructed and noise-resistant transmission of radio signals.

In accordance with the requirements of regulatory legal acts and guidelines, it is necessary to develop a draft query justification that satisfies the requirements for the unobstructed and noise-resistant passage of radio signals [11-16].

Preparation of a work program for field work on the development of situational photography, justification using satellite technologies in accordance with general recommendations, and the choice of the method of network construction will be the logical basis. For development using imaging depending on basing satellite technology the projected survey scale and height of the relief cross section should be applied. One of two methods is network (Form 1) or hanging point detection method (form 2)-radial network is characterized.

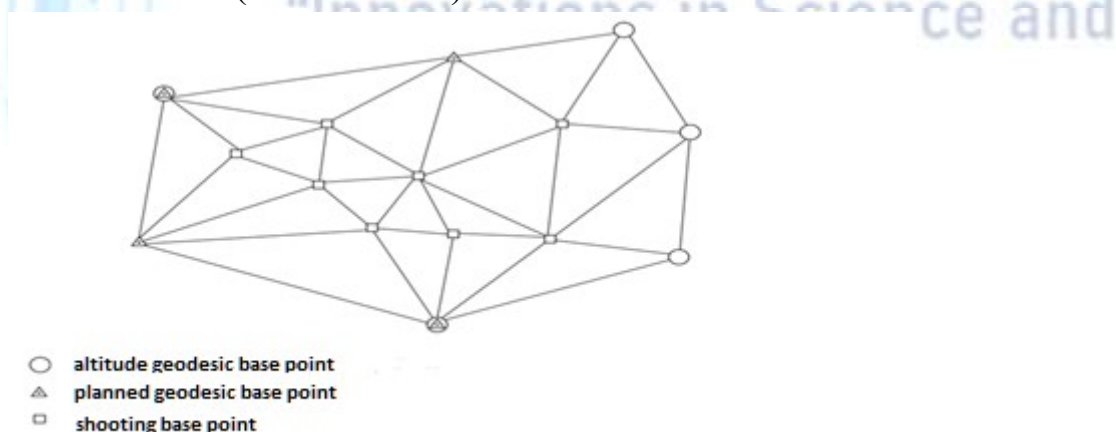


Fig.1. Forms of constructing the basics of shooting in the network method.

In order to study a particular object on the desired scale with a given height of the relief cross - section, it is necessary to choose a method of satellite detection-static, rapid static or re-occupation-when designing research bases. Depending on the instructions for choosing the method of developing the basics of photography and the height of the relief cross-section, the shot scale and the method of satellite detection are presented in Table 8.

In the preparation of a geodetic base for shooting at relatively small scales with the heights of the relief plot, it is recommended to use the method of developing a imaging basis (beam method) by identifying hanging points. 1 m, 2 m and more, that is, it is used in cases where it is not required to obtain materials in high accuracy [17-19].

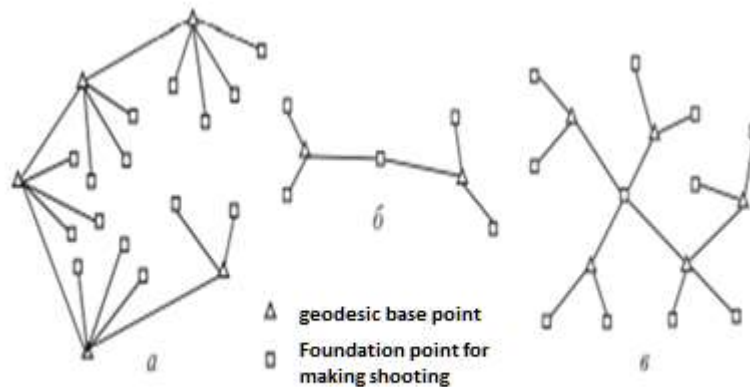
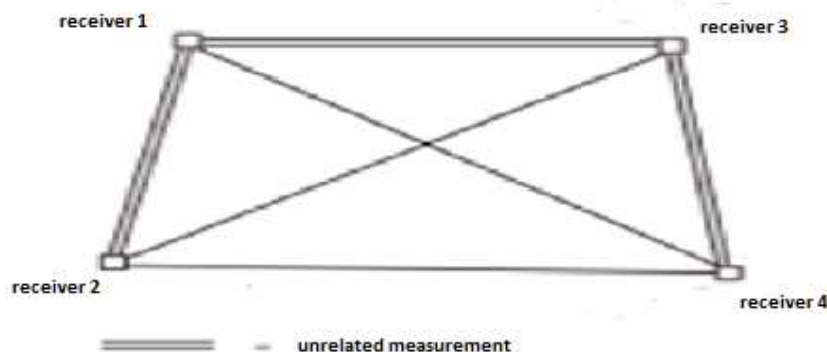


Fig.2. Drawing up the forms of the basics of shooting in a directional way.

The static method of satellite detection can be applied technically and economically to obtain a high-altitude research base in cases where the relief cross-section is 0.5 m high due to the relatively low efficiency of the work. It is advisable to carry out satellite detection, and not levelling work. When designing the development of research bases on the method of network construction, the fieldwork program on an object must be structured so that all lines of the network can be determined independently of each other, including lines based on geodesic data points.



Form 3. Scheme of independent determination of 3 lines from the reception performed at 4 points.

Consider the points of the geodesic base and determine their true suitability for observing satellites. It is necessary to refuse what is not suitable for work. New ones are selected instead of unsuitable points for satellite detection. During the Reconnaissance process, it is necessary to keep a journal in which the azimuths and height of the barrier boundaries for each point will have to be recorded if the height of the barriers above the horizon is more than 15° . In this case, the height of the barriers above the horizon should be determined taking into account the possible height of the receiving antenna.

Conclusion

The result of the analysis shows that the geodesic networks that exist in our republic today were last repaired 40 years ago, as well as the administrative borders of the city of Margilon and its bordering districts - cities and the SGN were not tied to a single coordinate system, today, based on the study of the experience of advanced foreign states in the process of changing.

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