

SOME RESULTS OF INVESTIGATIONS OF WILDFIRE FIRES IN THE TWENTIETH CENTURY AND TENDENCIES OF INVESTIGATIONS IN THE TWENTIETH FIRST CENTURY

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A review of the most important scientific results, obtained in the XX-th century on the problem of natural (forest, steppe and peat) fires is given. The main attention is devoted to mathematical models of these fires and new methods of fighting them. According to [1] it is stated, that all mathematical models of these fires can be divided into two large groups:

- 1) pyrological;
- 2) physico-mathematical.

In the frames of the first scientific trend empirical expression for the velocity of the fire spread are used. A contour of a wildlife forest fire is determined [2].

In the frames of the second scientific trend, which initiated and has been actively developing in the Tomsk State University since the late seventies of the previous century it is possible simultaneously to determine a velocity of spread, contours of wildlife fires, ecological consequences and also the limiting conditions of their initiation and spread. The latter allows to develop fundamentally new methods of predicting fire danger [3] and fighting them [4-6].

On the basis of the problem state analysis specific urgent trends of theoretical and experimental investigations for solving problems of predicting initiation, spread and ecological consequences of wildlife fires and also creating and introducing new methods and facilities for fighting them in the XXI-st century are suggested.

The work was done under financial support of the Russian Fund of Fundamental Research (grant 02-01-00714), according to a contract of a state Committee № 37.011.11.0009 with the Ministry of Industrial Science and also according to a programme "Universities of Russia" and grant E 02.12.1.67 of Education Ministry of Russian Federation.

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