
About emergency situations with the federal space launch of communication satellite "Express - MD2"

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Recently there has been an increase of emergency launches of telecommunication satellites and dual purpose satellites. The article investigates the cause of the emergency situation (ES) with the federal space launch of communication satellite "Express - MD2". Knowing that the planned in advance launch of the Russian spacecraft has been canceled due to technical reasons, it is suggested that the new cyclogram was based on the cyclogram-report of the previously successfully launched Canadian satellite «Nimiq- 6". When matching cyclograms a number of similarities was found. In the frame of the work the analysis of the two cyclograms was conducted and the possible error committed in their translation was calculated. The study revealed a bias of experts at Baikonur, which was a time mismatch between the on-board time set in the volatile booster clock, and the day-light saving time, according to which a part of the old spacecraft flight cyclogram calculations was made. Thus having previously published flight task cyclogram it is possible to calculate the time of the ES occurrence and its end. To avoid loss of telemetry it is necessary to have the ground (above-water) tracking aids.

Keywords: emergency situation, the satellite "Express – MD2", spacecraft, cyclogram.

REFERENCES

- [1] *Live real time satellite tracking and predictions*. Available at: <http://www.n2yo.com>
- [2] *Federalnoe Kosmicheskoe Agentstvo* [Federal Space Agency]. Available at: <http://www.federspace.ru/>
- [3] *Gosudarstvennyy kosmicheskij nauchno-proizvodstvennyy tsentr imeni M.V. Khrunicheva* [Khrunichev State Research and Production Space Center]. Available at: <http://www.khrunichev.ru/>

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