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**Covering for impact: Russian media's reporting on planetary defense matters
before and after the Chelyabinsk meteor**

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ABSTRACT

The Chelyabinsk meteor, a massive superbolide that entered Earth's atmosphere over Russia and exploded over the Chelyabinsk region on February 15, 2013, is by far the largest known near-Earth asteroid to strike the planet since the 1908 Tunguska event. With about 1,500 people injured and 7,200 buildings damaged by the explosion's shock wave, the event has highlighted the need for a global framework for space situational awareness, NEO discovery, and threat assessment and management.

One of the societal impacts of major natural and technological disasters, arguably, is increased awareness of the broader causes behind them. There is evidence, for example, that experiencing extreme weather events may sway people's attitudes in favor of stronger environmental and climate change policies, and technological disasters have been shown to generate public pressure for increased transparency and reform.

But while a national impact avoidance system is reported to be in development in Russia in the wake of the Chelyabinsk explosion, it is less clear whether the event has had any lasting positive impact on public awareness of the issue of planetary defense. National polls by the Russian Public Opinion Research Center in late February 2013 showed approximately 27% of Russians believing that the February 15 impact was something other than a meteor explosion. Some 46% of respondents were convinced that the government was concealing the real causes and consequences of the event. Later polls on perceived levels of risk associated with various potential threats showed the share of Russians considering space impacts "virtually impossible" actually went up between 2013 and 2014 (from 32% to 46%).

In this paper, we focus on a subset of the Russian public whose changing awareness of asteroid impact risks can be assessed dynamically from their work — journalists in the Russian media, which provided extensive coverage of the Chelyabinsk event and its aftermath. Messages from the media also greatly influence the public’s perception of a given news event and the associated risks, so we set out to test whether prolonged focus on the subject and exposure to scientific information due to the Chelyabinsk event have influenced the overall quality of reporting on the issue of NEOs and planetary defense.

The paper presents a statistical study of a large sample of stories published in the Russian print and online media in 2012–2014 and a smaller in-depth study of a sample of TV programming from select broadcast and cable channels for the same period. We discuss framing of the issue before and after the event, possible estimates for levels of scientific accuracy in reporting, and evidence of ‘learning by doing’ among reporters covering the event. The Chelyabinsk event may still act as a gateway into a broader public discussion on planetary defense, but as in other policy areas involving science and technology, the relevance of this discussion will hinge in critical ways on the quality of journalistic coverage.
