

Integration of the SAR Payload on Board of the Meteor-M No. 2-2 Spacecraft into the COSPAS–SARSAT International Search and Rescue System

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Abstract. The present article addresses the results of the “Meteor-M” No. 2-2 SAR payload (RK–SM–MKA) commissioning campaign. The international effort was coordinated by Russia with the participation of technical teams from national administrations of the United States, Canada and France. In the course of testing, it was determined that the SAR payload performance was within technical expectations and that the SAR payload could be operationally used in the COSPAS–SARSAT system. Other matters of integrating the “Meteor-M” No. 2-2 (“Cospas-14” in Cospas-Sarsat terminology) SAR payload into the COSPAS–SARSAT system as well as the system’s readiness to accept the new spacecraft are discussed. The article also unveils the objectives addressed during the “Cospas-14” integration period and the benefits gained by the system, which were recently made public by the COSPAS–SARSAT Secretariat. The analysis performed by the Secretariat demonstrated that the addition of the new “Cospas-14” into the LEOSAR system significantly improves LEOSAR satellite latency due to the spatial diversity of the current SARSAT and “Cospas-14” orbits.

Keywords: COSPAS–SARSAT, “Meteor-M” No. 2-2, “Cospas-14”, commissioning, international test campaign, search and rescue, radio beacon, SARP