Current States and Future Needs on the Warning System for Aviation Exposure to Solar Energetic Particle (WASAVIES)

*Tatsuhiko Sato[1], Ryuho Kataoka[2], Hiroshi Yasuda[3], Yuki Kubo[4], Mamoru Ishii[4], Shoko Miyake[5], Inchun Park[6], Yoshizumi Miyoshi[6]

1. Japan Atomic Energy Agency, 2. NIPR, 3. Hiroshima Univ., 4. NICT, 5. NIT, Ibaraki College, 6. Nagoya Univ.

Estimation of radiation doses for astronauts as well as aircrews due to the exposure to solar energetic particles (SEP) is one of the greatest challenges in space weather research. We are therefore developing a WArning System for AVIation Exposure to Solar energetic particle (WASAVIES), under the framework of Project for Solar-Terrestrial Environment Prediction (PSTEP). In the system, the SEP fluxes incident to the atmosphere are calculated by physics-based models. Thus, WASAVIES can estimate not only the current value but also time variation of the aircrew doses after a GLE event occurs. A brief outline of WASAVIES together with the status of on-going research subjects such as development of the automatic calculation algorithm will be presented at the meeting.

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