Introduction

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In 2017, The American Astronautical Society's Space Surveillance Technical Committee, in partnership with the Maui Economic Development Board, initiated the peer review and publication of selected AMOS Conference 2017 papers in the Journal of Astronautical Sciences. The AMOS Conference is an annual event showcasing leading technical papers on Space Situational Awareness (SSA) and Space Traffic Management (STM). Peer review of select conference papers furthers the AMOS Conference's standing as the lead technical conference in the area of SSA and provides a reference point for researchers working in the SSA and STM fields. The AMOS Conference's technical sessions are formed by a body of international delegates who conduct research and development on a diverse range of SSA matters. The technical sessions routinely discuss new concepts in the areas of astrodynamics, adaptive optics and imaging, space based assets, non-resolved object characterization, orbital debris, and Space Situational Awareness.

We are pleased to present the first volume of the *AMOS Conference Special Topic* as an online publication in the Journal of the Astronautical Sciences. The AMOS 2017 Special Topic covers papers describing research in areas presented at the 2017 AMOS Conference, such as geostationary satellite albedo characterization, spacecraft surface degradation due to the space environment and its effect on albedo, machine learning applied to space object characterization, and tools to assess the state of the orbital debris environment. The editors and conference organizers commend the efforts by all the authors and reviewers who helped create this edition. Their highly valued contributions help build the technical credibility of the AMOS conference while promoting their leading work.

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We look forward to publishing the leading technical papers from AMOS with a view toward promoting the newest technologies, techniques, and practices ensuring the security and sustainable use of our Earth's orbital resource.

Mahalo,

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