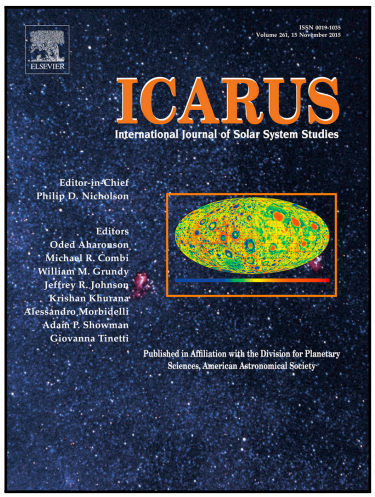


# The Geological History of Northeast Syrtis Major, Mars

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**Highlights**

- We use HiRISE observations to characterize and map geomorphic units at Northeast Syrtis Major, Mars.
- Mineralogy and physical properties of the geomorphic units are characterized with CRISM and THEMIS.
- Stratigraphy unifiable with 5 geomorphic units despite heterogeneity at decameter scale.
- We identify intriguing large linear features and circular landforms of the olivine-rich unit.
- Synthesizing mapping results with the literature, a detailed geological history is constructed.