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Detection of Water Masers Toward YSOs in the LMC[1] ADAM JOHANSON, VICTOR MIGENES, Brigham Young University — We present results from a search for water maser emission toward three regions of massive star formation in the Large Magellanic Cloud (LMC). Six water maser spots were detected toward two of the regions, including one region with no known previous emission. Four of the maser spots are found to be associated with massive young stellar objects (YSOs). One maser spot appears to identify a previously unknown massive YSO. Another maser spot is associated only with a filament due to local enhancement of the interstellar medium. We argue that this may be the first extragalactic maser associated with a low-mass YSO. The third region hosts a newly discovered 22 GHz continuum source, also associated with a massive YSO. This illustrates the usefulness of masers as probes of the star formation process, both at a local and galactic scale.

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