The Antikythera Mechanism, so named after the Greek island in whose waters it was salvaged in 1901 from a shipwreck datable to ca. 60 BCE, is a remarkable geared device that was constructed in the 2nd or 1st century BCE to calculate and display various astronomical, calendrical and athletic time periods. No device of comparable technological complexity is known until 1,000 years later. In 2005, a group of researchers known as the Antikythera Mechanism Research Project (AMRP) examined the 82 fragments of this badly corroded and brittle device with two modern technologies called Micro-Focus X-Ray Computed Tomography (CT) and Polynomial Texture Mapping (PTM, now more widely known as Reflectance Transformation Imaging, or RTI). These two technologies not only helped to better read the many inscriptions on the outer surfaces that had long been known, but they also revealed inscriptions incised on the inner surfaces that had not been read in over 2,000 years. Using the 2005 data, in 2016 the AMRP published a volume dedicated to these inscriptions (Allen et al. 2016), which was a substantial addition to the very small corpus of Hellenistic texts that deal with astronomy at a technical level. This talk will discuss these inscriptions, including some new readings based upon the 2005 data that the author has made since 2016, some not yet published.

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