Non-line-of-sight (NLOS) Hard Chromium Alternatives Status Report

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For the past four years, CTC has been working with the U.S. Air Force Research Laboratory (AFRL) through the National Defense Center for Environmental Excellence (NDCEE) to evaluate electrochemical alternatives to hexavalent chromium electroplating for non-line-of-sight (NLOS) applications. In previous papers, the selection methods were described and the selected alternatives were identified. Specifically, a variety of nickel-based alloys and composite coatings were selected for testing. Since the last paper, initial screening tests have been conducted and the originally selected alternatives have been analyzed for applicability, per Air Force needs and requirements. Secondary testing, which includes corrosion and wear resistance analysis, is currently underway for those alternatives that proved most viable during initial screening. This paper provides a status of the demonstration activities being performed, initial screening test results, and any conclusions that may be made.

Paper not available for publication.

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