

## Advanced Techniques for Design and Analysis of Composite Communication Reflectors and Materials

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### Abstract

As the benefits of advanced composite materials become known to the satellite communications industry, there is an increasing need for fast and accurate design and analysis of these new composite reflectors. Since often times these composite structures are used in cost critical commercial applications, which require faster design engineering, materials development, and manufacturing with shorter delivery schedules. Due to cost and time constraints, full scale environmental testing is usually not an option for these commercial applications. Therefore, there is an urgent need for experienced composite D&A engineers with an extensive background in composite materials and structures. These engineers relay on many advanced techniques and tools to accelerate the composite design and engineering process.

### Speaker Publications:

Tim Douglas, Mechanical Lift, Fully Nesting, Telescoping Mast Patent date Issued Jun 28, 2011 Patent issuer and number 79667773.

[7<sup>th</sup> Global Meet on Wireless, Aerospace & Satellite Communications](#); Paris, France- February 12-13, 2020.

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### Biography:

Tim is working as a president for WCA which is an Engineering Services company in Park City, Utah to assist in the design/analysis/test of composite and metallic structures for companies in need of analysis and engineering support. WCA is capable of providing advanced composite design and analysis for multiple loading and heating environments including inertial, shock, fatigue dynamic, external/internal aerodynamic flow CFD, with cryogenic to elevated temperatures.