



MEDIA RELEASE

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The stars in our youth's eyes

M U N C I E – With the recent passing of aerospace legend Neil Armstrong, we look back on a time of great excitement and achievement that he and his fellow Apollo 11 astronauts brought us. One single leap onto the lunar surface electrified a nation and unified humanity. That was then.

That was when the average NASA engineer in the Houston control room was in his 20s. Now, the average age of an aerospace engineer is in the 50s. A generation, such as mine, grew up dreaming of the stars. Today's best and brightest minds seem to be dreaming of derivatives. So here we are, with the demise of Neil Armstrong, NASA's manned space program, and a nation once again behind the eight ball of science.

Our nation and its industries are starved for engineers and scientists. Our schools are desperately trying to catch up to the rest of world in science, technology, math and engineering (STEM), caught in arrears, much like the time of Sputnik in the '50s. Our children? They are, according to author Cynthia Reynolds, the mechanically challenged generation.

"We advance to the unique ability to visual an idea, then create that vision with our hands. That's meant everything from developing tools to imagining airplanes to performing open heart surgery. So what happens if that all-important hand-brain conversation gets short circuited at a young age?"

What to do besides handwringing? According to Dr. Frank Wilson, neurologist and author of *The Hand: How its Use Shapes the Brain, Language and Human Culture*, there are serious consequences for ignoring hand-brain connectivity. "After NASA's Jet Propulsion Lab noticed its new engineers couldn't do practical problem solving the way its retirees did, it stopped hiring those who didn't have mechanical hobbies in their youth." The italics are mine, for an important reason. America is at a serious crossroads in preparing its latest generation to compete on the world stage.

Neil Armstrong was a model builder. He was also in the Model Aviation Hall of Fame. He, like many of his generation who aspired to be aviators, knew that almost every aeronautical principle and mechanical device keeping full-scale aircraft aloft can be found in a model airplane.

The first person to design a successful private spaceship, Burt Rutan, also in the Model Aviation Hall of Fame, found a way to reenter the atmosphere at a lesser angle than the Space Shuttle. How did he do that? By calling up his aeromodeling experience as a youth and tossing a model off the roof of his California headquarters to test his design. His SpaceShipOne now hangs in the Smithsonian very near John Glenn's Mercury capsule and Chuck Yeager's X-1.

Modeling is essential to math, science, and engineering – in fact, to all creative thinking. The model is a metaphor, a way of understanding cause and effect, a context for an outcome. Model-building activities enable students to develop “spatial intelligence” and experience the serendipity of trial and error, tempered by data collection and thoughtful reflection, leading to insight and discovery.

The 143,000-member Academy of Model Aeronautics is dedicated to bringing this process of discovery- and, dare we say, fun- to today’s youth – and those still young at heart - whether at a public park flying field or the science classroom.

A giant leap for mankind often begins when a child picks up a model and begins to dream; and then no surly bond can keep him or her earthbound.

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