

HI-NOON TECHNICAL SEMINAR

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AUDITORIUM - IPB 3

TESTING THE MODERN COMPOSITE SCALED PROTOTYPE

*BURT RUTAN, PRESIDENT
SCALED COMPOSITES INC.*

Reduced Scale Manned Flight Test prototypes have been used effectively for many major aircraft development efforts, the most notable being the Northrop Flying Wings. This presentation describes the flight test development activity of some recent scaled prototypes - Fairchild NGT, the Lotus Microlight and the Beech Starship 1. These aircraft differ considerably in size and performance, but their development shared a common prototyping philosophy. They were built and tested to verify and refine flying qualities and performance. Their structures were all composite using techniques that allowed rapid fabrication of prototypes at low costs. The fabrication methods also allowed minor and major aerodynamic modifications to be incorporated during the tests activity with little schedule impact. The method provides dynamics test data including flight control systems characteristics in a realistic flight environment, but at a schedule and cost that is similar to wind tunnel testing.

A program update will also be presented on the Voyager Aircraft.