



"Serving to Serve Again"

Propellers

Jack: There's a lot of controversy about two blade versus three blade and we hear a lot of comments and always hear the comment, well often hear the comment that single blade propeller is more efficient than anything else. Well we don't argue with any of that. But the real truth of the propeller issue is, you need enough propeller blade area to utilize the torque of the engine. And if you think about it P-51 has four blades, maybe they didn't know that a two blade was more efficient. But anyway you need more blade area to utilize your torque. Now, the length of the blade has a lot of effect on performance too. But more important is the design of the blade itself the air fold, the twist in the blade, the area in which the blade is twisted most, all that has to do with the design of the propeller. We use both Hartzell propellers and McCauley. We will be doing some experimental work with a composite propeller from Hartzell in the near future; so far we've not used a composite propeller.

Prop balancing is an important step for proper engine performance. Jack Johnson is a strong believer in in-flight prop balancing, he is using the ACES system model 2020, it gives the vibration levels of the propeller in actual flight conditions and that's considerably better than standing in front of a running engine holding a strobe light.