



Maxwell Propulsion Systems, Inc.

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MPS February 2008 Update

Maxwell Propulsion Systems, Inc. PSRU Ground Test Complete!

Having predicted the completion of the ground testing on the new MPS PSRU since September 2007, MPS is now extremely pleased to announce that ground testing is *officially completed!* The MX1 PSRU will begin flight testing at SportCopter this week.

Background

As we told folks in December, our vibration analysis using a *rubber donut* for torsional vibration control identified vibration levels that were unacceptable. We then went back to the drawing board, and in consultation with the technical support staff at Lords, developed a modification that uses eight rubber bushings in an eight inch aluminum bushing adapter.

The prototype was installed on the MPS test stand two weeks ago. The testing was done at 200 rpm intervals between 3600 and 5200 rpm and data were collected using an accelerometer. Analysis of these data demonstrated that the vibration levels were within the acceptable range...Larry's comment after looking VERY HARD at all the data was: *I can't find anything wrong with the PSRU.*

Production Plan

As previously reported, all major components of the new gear box have been manufactured and are awaiting assembly. The purchase orders for the five remaining manufactured components: input shaft, flywheel, spacer, alignment pin and bushing adapter, will be issued/taken off hold this week. In discussions with our two machine shops, we understand that we will be in possession of all remaining components by the first week in April.

Ordering/PSRU Trade-In Option

With completion of the ground testing, MPS is now in a position to accept orders for the MX1- PSRU. Delivery would be anticipated to begin in April, 2007. Delivery dates will be negotiated when a purchase order is accepted. To place an order, we are requesting a \$500 refundable deposit. The introductory price of a complete MX1-PSRU is \$8900.

Current owners of an A12/A40 or A12/A30 PSRU who order the new MX1 PSRU between March 1, 2007 and August 15, 2007 will receive a \$2500 discount. Please call 360.474.8118 for additional information

N787MX – Maxwell Dreamliner

The tail numbers for the MPS Glasair Sportsman have been reserved! We had been hoping to have our Sportsman flight ready, however the delay in completing the PSRU testing has set us back somewhat. However, we are continuing the R&D to develop a firewall forward system for the Sportsman. To date we have successfully modified the firewall blanket and mounting frame. With luck and good planning we hope to be flying in April.

Mark Kiedrowski, a Subaru-powered GlaStar pilot with 1000 hours, has generously agreed to be our test pilot and will fly off the 40 hours here at Arlington.

Exhaust Modification

MPS, working closely with Aircraft Exhaust, has designed an exhaust system that incorporates a slip joint as well as a mounting clamp. (See photo.) This modification will allow more flexibility to the builder when retrofitting to an existing package, potentially eliminating the need to modify the cowling. More importantly, it is also designed to minimize vibration and thus provide longer exhaust pipe life.



Prop Pitch Indicator

As reported last month, the prop pitch indicator design for the MPS CAP 220 remains incomplete. At this point we have determined that the technical complexity of the original design is inappropriate to the experimental aviation venue.

On another note, we are in negotiations with Nolan Frederick to co-develop a prop pitch indicator that he has prototyped for the CAP 200. Assuming this is technically and economically feasible, this may be an opportunity to meet this need as well as provide an option for application in the CAP220.

That said, we will be writing a set of instructions on how to fly the in-flight adjustable propeller using engine instruments.

MPS Electrical System Manual

Also on the electrical front, Colin has written a manual describing the MPS electrical system that also contains some helpful information about wiring processes. If you are interested, check it out on our website under *Support*.

Note: Updated information regarding the firewall terminal guarantee is included on pages 6-7.

MPS Customer Forum

We recently established an MPS customer discussion forum. We sent out invitations to many to join this group, but believe there were some folks that were not included. If you were missed, please send an email to cngillespie@maxwellpropulsion.com requesting an invite.

The forum is designed to be interactive with the goal of answering questions, providing information about our product line and assisting customers with their products.

2008 Airshow Participation

Sun-'n-Fun

While MPS will not have a formal display, we have accepted a personal invitation from Contact! Magazine to participate in their Alternative Engine Forum. They informed us that they were very interested in having a Subaru system represented in their Forum.

Mark Kiedrowski and Dominic Acia (AKA the MPS Engine Tuning Guy) will do presentations on Tuesday and Sunday. See schedule posted at www.maxwellpropulsion.com. If you plan to fly in, please let us know; Pat Panzera of Contact! Magazine has agreed to work with MPS customers who would like to have their plane parked near the Forum area for an informal show-n-tell.

Arlington Fly-In

We of course will be at this show, most likely with a booth at the show and an Open House at periodic intervals. We also promise to host another lively BBQ dinner.

EAA Air-Venture-Oshkosh

MPS will have a display booth at Oshkosh. Display Space numbers have not been released as yet, but we are all very excited about our inaugural participation. We will have two planes in our display N787MX and Bill Graves' T-51 Titan powered by a 4 cylinder Suzuki 150 HP turbo.

Copperstate

To round out the 2008 show season, we plan once again to attend the Copperstate Fly-In ...just in time for a pre-winter break!