Supervan Systems Ltd.
8955 CR 135
Celina, Texas 75009

February 4, 2011

Dear Supervan 900 Customer:

Supervan Systems Ltd. is continually monitoring the operations of our aircraft to insure that you have the best product possible. The company is aware of some propeller vibration which occurs only when the propeller is rapidly put into reverse thrust at speeds above 65 knots. To prevent this problem, the aircraft flight manual includes a CAUTION statement advising that full reverse should not be used above 65 KIAS.

Supervan Systems Ltd. has been working with Hartzell, the propeller manufacturer, to determine whether a slightly modified propeller might be used which would avoid this restriction, but maintain the performance which our aircraft has with the present model. Some testing has already been done with alternate props, and Hartzell and Supervan Systems are still analyzing the performance information to determine the best aircraft/propeller combination. Should a new propeller be deemed to be better, we anticipate that Hartzell will provide new propeller blades to our present customers at no charge.

When we asked Hartzell to address this issue, instrumented testing was done which indicated that repeated operation of the propeller in reverse at speeds above 65 knots could eventually damage the propeller and possibly cause a failure. We emphasize that there have been no propeller failures from this, nor are we aware of any damage to any propellers from this. This is simply an effort by Supervan Systems to improve its product.

Because a propeller failure in flight could clearly cause an accident, Hartzell has suggested that the previous “Caution” about the reverse operation be changed to a “Warning” in the flight manual, thus emphasizing the importance of operating the reverse thrust only under 65 knots. Attached to this letter is a service bulletin addressing this issue. The Airplane Flight Manual Supplement is also being amended to include this warning. And, in an abundance of caution, we are advising that no reverse thrust be used above 65 knots, rather than just full reverse thrust. Please be sure that your pilots are reminded of this restriction which is already in the Airplane Flight Manual Supplement.

Should you have any questions about this matter, please feel free to contact us.

Sincerely yours,

Bobby Bishop

February 4, 2011

Subject: Hartzell Propeller Model: HC-B4TN-5QL/LT10890NK (de-ice)
HC-B4TN-5NL/LT10890N (non de-ice)
Honeywell Engine Model: TPE331-12JR
Cessna Aircraft Model: 208(B)

Dear Supervan 900 Operator,

Hartzell has received reports of an unusual propeller noise during application of reverse thrust on landing on the Cessna 208(B) aircraft equipped with propeller models HC-B4TN-5QL/LT10890NK (de-ice) and HC-B4TN-5NL/LT10890N (non de-ice) with the Honeywell engine model TPE331-12JR. Subsequent testing with an instrumented propeller has identified this condition to be blade stall flutter. Repeat operation of the propeller in a flutter condition can lead to blade separation which in turn can lead to loss of control of the aircraft. This condition may result in death, serious bodily injury, and/or substantial property damage.

Stall flutter condition can be avoided for this installation if propeller reversing is selected at or below 65 knots.

Hartzell Propeller is currently working on a solution that resolves this condition. Until a solution is available, operators must be informed of the following propeller operating limitation.

WARNING: AVOID THE USE OF PROPELLER REVERSE ABOVE 65 KNOTS DURING LANDING. FAILURE TO DO SO MAY LEAD TO BLADE SEPARATION WHICH IN TURN CAN LEAD TO LOSS OF CONTROL OF THE AIRCRAFT. THIS CONDITION MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE.

WARNING: THE SUDDEN ONSET OF UNUSUAL VIBRATION CAN BE AN INDICATION OF A FAILING HUB, PROPELLER BLADE, BLADE RETENTION, OR PITCH CHANGE COMPONENT. BLADE SEPARATION MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE. THIS CONDITION DEMANDS IMMEDIATE INSPECTION FOR POSSIBLE CRACKED HUB, BLADE, BLADE RETENTION OR PITCH CHANGE COMPONENT.

Sincerely,

Bobby Bishop

Bobby Bishop
Supervan Systems Ltd