

## ASX ANNOUNCEMENT

ASX: SMN

9 November 2022

**STRUCTURAL  
MONITORING  
SYSTEMS**  
plc



### **Structural Monitoring Systems announces first commercial sale of its ground-breaking CVM™ technology to Delta Air Lines**

**Structural Monitoring Systems Plc (“SMS” or “the Company”) (ASX: SMN)** is very pleased to announce that it has secured the first commercial sales of its ground-breaking Comparative Vacuum Monitoring (CVM™) technology after receiving its first commercial Purchase Order from Delta Air Lines for an initial four CVM™ Sensor Kits for its Boeing 737NG aircraft.

The confirmation of the first sales of the patented CVM™ sensors marks a significant milestone in the Company's history as SMS progresses conversations with major airlines to widen the use of the technology to incorporate further aircraft and applications.

Delta Air Lines has indicated that Aft Pressure Bulkhead (APB) sensors will be installed progressively in aircraft undergoing heavy maintenance inspections throughout 2023. Once installed the sensors allow for monitoring for metal fatigue without the time and expense of a visual inspection, and Delta expects significant savings in maintenance time over subsequent years across their entire fleet of 77 Boeing 738NGs once the installation has been completed.

While final FAA approval for this application of the sensors is yet to be finalised, this purchase order underlies the confidence that all parties – Delta, Boeing and SMS – have that it will be forthcoming, especially following the March 2022 granting of a Supplemental Type Certification (STC) for the use of CVM™ Sensor Technology In another B737 application by the FAA.

That approval marked an extraordinary milestone in aviation history for an Australian made technology, the first-ever in the world regulatory agency approved sensor technology validated and certified for detecting critical structural cracks on aircraft.

The use of CVM™ is expected to meaningfully impact industry maintenance inspection methods from a time and budgetary perspective moving forward and will be marketed to a global customer base.

This further milestone follows the announcement in October that SMS had successfully completed POD testing on the Boeing 737 APB application at wholly owned subsidiary Anondyne Electrics Manufacturing Corporation's (AEM) Kelowna facility and that the performance of the sensors and instrumentation had been “flawless” throughout that process.

The final steps in the Aft Pressure Bulkhead approval process include the completion of a Reliability Report, a Compliance Data Summary Report and Boeing Service bulletin revision expected to be issued in early 2023 and finally Federal Aviation Administration approval of an Alternative Method of Compliance (AMOC) certificate between March and May 2023.

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### **SMS Executive Chairman Ross Love commented:**

"This is an extremely important milestone for the Company and marks a crucial point in the commercialisation process for our landmark CVM™ technology.

"This is further validation of the quality of the technology we are able to offer to the market and to the combined efforts of the dedicated team across the globe which has put all of their energies into securing the first of what we believe will be a significant number of ongoing commercial sales.

"On behalf of the team I would like to thank Delta Air Lines for the support and confidence they have shown in this technology and the work they have done with us to enable us to get to this point.

"This significant achievement, following on from the announcement that SMS had secured FAA approval in March this year, will allow the Company to fully realise the commercial potential of its market leading technology and pave the way for future expansion and growth.

"This is an innovative, leading-edge technology that we believe has the potential to become a routinely accepted method for performing periodic continual maintenance on all aircraft types worldwide and we look forward to making further inroads into this market.

"It is also validation for our broad shareholder base, a significant portion of whom have been investors in the Company over a long period.

"I would like to take this opportunity to thank them also for their ongoing support to get to this significant stage and look forward to a bright future ahead for the Company as it turns its attention to other major carriers in the US and beyond."

### **SMS Business Development & Marketing Executive Vice President Rich Poutier commented:**

"This is indeed a significant achievement for the team that has worked so diligently to deliver on the potential that this technology promised.

"This first ever commercial order is a major milestone to the commercial validation of the capabilities of CVM™ and represents the highest level of confidence from a major US airline. This commercial validation follows the technical validation issued earlier this year by the FAA for the B737-800 Wi-Fi STC.

"We believe this is the first in a long line of commercial sales of our technology and I look forward to progressing the conversations we are having with other airline customers on the path to full commercialisation.

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"I would also like to thank the team at Delta who have partnered with us in the true sense of the word to bring this to fruition and to an ongoing cooperative and mutually beneficial relationship between our two companies."

### **Key Material Terms of Purchase Order**

**Customer:** Delta Air Lines

**Terms:** Initial purchase order

**Nature of Product:** CVM Sensors Kits to detect structural cracks

**Number related to initial PO:** Four sensor kits

**Significance of order to the Company:** Commercially this is a significant milestone for SMS and commercial validation of the capabilities of the CVM technology from a major US airline

**PO Value:** The Company will receive cash for the PO but does not consider the amount to be material

### **About CVM™**

Structural Monitoring Systems CVM™ technology was originally developed in Australia in response to an identified need for accurate, reliable in-situ monitoring of the structural integrity of aircraft to ensure the highest levels of safety and reliability.

It supplements or replaces the routine use of standard manual testing which is a re-occurring, labour intensive procedure that is subject to human error and misinterpretation.

The aviation industry was identified early as an appropriate high value customer for the technology providing an ideal platform to facilitate the full commercialisation the technology to a global customer base.

CVM™ offers a novel method for in-situ monitoring of crack initiation and propagation based on the principle that a vacuum maintained within a small volume is extremely sensitive to leakage and provides a measure of the differential pressure between alternating channels containing air at a partial vacuum pressure and channels containing air at atmospheric channels in a simple manifold.

The CVM™ principle relies on placing a sensor onto the surface of a component of an aircraft where damage is expected to occur and contains a manifold of fine channels that are open to the surface. Once installed, the channels form closed 'galleries' to which a vacuum can be applied.

***This ASX release has been approved for release by Executive Chairman Ross Love on behalf of the Board of Directors.***

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