Virgin america

<u>Via E-Mail</u>

The Honorable Edward J. Markey
United States Senate
255 Dirksen Senate Office Building
Washington, D.C. 20510-2107

Dear Senator Markey:

I am responding to your inquiry regarding Virgin America's efforts to safeguard its aircraft systems and passenger data against cyber attacks. We appreciate you reaching out to us on this important issue.

Virgin America understands the importance of defending against potential cyber attacks, and has taken a number of actions to protect its aircraft systems and passenger data against such threats.

As an initial step, we regularly review and assess our internal organizational to evaluate the skills of our corporate security team and information technology staff with responsibility for securing information assets. This analysis includes a periodic review of our internal competencies and an assessment of where outside help might be needed. In addition we perform internal audits/self-assessments, and routinely monitor and investigate any identified cyber threats.

Second, we have taken advantage of opportunities to collaborate with security personnel both inside and outside the airline industry to share intelligence about current attack techniques and emerging threats to information systems. We do so to understand and utilize industry and non-industry security best practices. This includes our relationship with a number of leading technology companies in San Francisco and Silicon Valley who participate with us in the Bay Area Council Cyber Security Committee. In addition, we have collaborated with and shared relevant cyber security experience with federal agencies with responsibility for cyber security matters, including the Federal Bureau of Investigation.

Third, we have implemented various physical barriers and third-party hardware, software and systems to protect against cyber attacks, including firewall intrusion detection systems, virus and malware protection software, and other commercial systems to prevent unauthorized access to passenger data and aircraft avionics.

In regard to aircraft security matters, Virgin America operates only Airbus A320 family aircraft. We work closely with Airbus to review and implement systems and procedures that are recommended to protect against threat of cyber attack in regard to our Airbus aircraft. Virgin America offers an in-flight entertainment service (IFE) and Wi-Fi network to guests on all of its Airbus operated aircraft. Virgin America's IFE and Wi-Fi systems do not send any data or information to the aircraft avionics systems (they have separate network architecture) and, consequently, the two systems cannot be used to penetrate each other. In addition, the electronics that control Virgin America's IFE system are not physically accessible to passengers in the cabin seating area. Instead, they are physically located beneath the cabin floor. Aircraft flight control and other aircraft operations systems are also physically insulated against unauthorized access by passengers and contain imbedded manufacture cyber security systems.

Virgin America is not aware of any instance in the last five years in which our aircraft systems were infiltrated by an outside party or customer personal identifying data was obtained by a third party as a result of a security breach. Nevertheless, we are keenly aware of the need to remain vigilant in protecting its aircraft systems and customer data from cyber attacks.

Please let us know if you have any further questions.

Sincerely,

Christina M. Hanna
Associate General Counsel, Employment & Litigation
Virgin America Inc.