USING SOLAR SYSTEM AMBASSADORS VOLUNTEERS IN SUPPORT OF NASA PUBLIC ENGAGEMENT. K. A. Ferrari\textsuperscript{1} and H. J. Doyle\textsuperscript{2}, \textsuperscript{1}NASA/Jet Propulsion Laboratory, 4800 Oak Grove Drive, MS 111-B29, Pasadena, California 91109, \texttt{Kay.A.Ferrari@jpl.nasa.gov}, \textsuperscript{2}NASA/Jet Propulsion Laboratory, 4800 Oak Grove Drive, MS 111-B80, Pasadena, California 91109, \texttt{Heather.J.Doyle@jpl.nasa.gov}.

\textbf{Introduction}: NASA utilizes a nationwide network of Solar System Ambassadors (SSA) volunteers to help achieve the Science Mission Directorate’s (SMD) public engagement goals of disseminating key mission events and discoveries in space and Earth science missions to the broadest public audience.

\textbf{Background}: Founded in 1997 at NASA’s Jet Propulsion Laboratory as the Galileo Ambassador Program, it was restructured and renamed in 1999 to include Solar System missions. Those SMD missions then provided funding, training and materials to support the program. In 2000, under the direction of Kay Ferrari, the Solar System Ambassadors program set about implementing its goal of recruiting at least one SSA volunteer in each state nationwide and trained those volunteers remotely by teleconferences that connected them with NASA subject matter experts. An annual application period was established for the month of September with new Ambassadors beginning their one-year, renewable term of service the following January.

\textbf{Operations}: During the month of January, new Ambassadors are provided Orientation, Ethics and Media trainings to acquaint them with program operations. Each month, mission personnel and NASA subject matter experts provide online trainings with downloadable website materials for Ambassadors to use in their events. Solar System Ambassadors are asked to arrange, conduct and report four NASA-themed events per year to maintain eligibility for renewal.

\textbf{NASA Infrastructure}: In 2016, NASA’s Science Mission Directorate began funding Solar System Ambassadors as infrastructure, making it a resource for all Science Activation (SciAct) funded projects. At that time, the staff of the program was increased from 1 to 2 FTEs to support a goal of increasing the total number of volunteers to 1,000. That goal was met three years later in 2019.

\textbf{Metrics and Examples of Success}: Since 2001, Solar System Ambassadors have held more than 48,000 events nationwide and at US Military Bases and Consulates overseas. They have reached more than 10 million people directly and more than a half-billion people indirectly. A couple of recent NASA Level 1 events, the 2017 Eclipse and the Apollo 11 50th Anniversary, are excellent examples of the success of this network. On August 21, 2017, 372 Ambassadors hosted eclipse viewing events that reached almost 350,000 people directly. During the summer of 2019, Ambassadors conducted 855 Apollo Anniversary events (mostly at libraries) reaching more than 230,000 people in their communities.

\textbf{Future Goals}: Future goals for the program include the establishment of regional councils to aid in supporting the local needs of Solar System Ambassadors and a mentorship program for incoming volunteers.