HOUSE OF REPRESENTATIVES
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Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City

NINETEENTH CONGRESS
First Regular Session

House Resolution No. **160**

Introduced by Representative Roman T. Romulo

RESOLUTION
COMMENDING AND CONGRATULATING GREGORIO G. VILLAR III, GENEVIE V. YANG, AND EDWARD GONZALES FOR THEIR VITAL ROLE IN ENSURING THE SUCCESS OF THE EXPLORATION MISSION TO THE PLANET MARS LAUNCHED BY THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION OF THE UNITED STATES OF AMERICA

WHEREAS, on July 30, 2020, the National Aeronautics and Space Administration (NASA) launched Mars 2020, a mission tasked to explore the Jezero Crater on the Planet Mars through the *Perseverance* Rover and *Ingenuity* Helicopter;[1]

WHEREAS, the exploration mission was NASA's first Astrobiology-focused undertaking to collect and store rock and soil samples from the surface of Mars, and ferry them back to Earth for detailed study and analysis of the existence of microbial life;

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[1] NASA, *NASA, ULA Launch Mars 2020 Perseverance Rover Mission to Red Planet*, July 30, 2020, https://mars.nasa.gov/news/8724/nasa-ula-launch-mars-2020-perseverance-rover-mission-to-red-planet/, accessed February 25, 2021

WHEREAS, the three major components of the Mars 2020 spacecraft are the 539 kg. (1,188 lb.) cruise stage for travel between Earth and Mars; the Entry, Descent and Landing System (EDLS) that includes the 575 kg. (1,268 lb.) aeroshell descent vehicle + 440 kg. (970 lb.) heat shield; and the 1,070 kg. (2,360 lb.) fueled mass descent;

WHEREAS, three Filipino-American engineers namely: Gregorio G. Villar III, Genevie V. Yang, and Edward Gonzales were among the thousands of scientists and technicians involved in the historic mission;

WHEREAS, Gregorio G. Villar III, an EDL Systems Engineer at the NASA Jet Propulsion Laboratory (JPL), was also the Head Verification and Validation Engineer for the EDL Phase;[2]

WHEREAS, Gregorio G. Villar III attended the St. Louis University High School in Baguio City. He obtained a bachelor's degree in Physics from the California State Polytechnic University, and a master's degree in Astronautical Engineering from the University of Southern California;[3]

WHEREAS, Genevie V. Yang, a Flight Systems Engineer at the NASA JPL, who was born in Biñan City, Laguna and whose family migrated to the United States of America when she was five years old,[4] was a member of the team that tested the flight software of the *Perseverance* Rover and worked with the Uplink Team that ensured the efficiency of the spacecraft while at launch cruise;

WHEREAS, Edward Gonzales, whose parents hail from Quezon City and Cavite, was the Lead Engineer of the Electromagnetic Compatibility team[5] that launched-tested and ascertained that all the individual subsystems and instruments of the *Perseverance* Rover would perfectly perform in the electromagnetic environment,[6] and successfully collected and transmitted data from the

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[2] Philippine News Agency, *Fil-Am Engineer helps NASA Perseverance rover land safely*, February 20, 2021, https://www.pna.gov.ph/articles/1131288, accessed February 25, 2021

[3] See Footnote 2

[4] GMA News Online, *Team behind historic Perseverance rover landing includes 3 Fil-Ams*, February 22, 2021, https://www.gmanetwork.com/news/scitech/technology/776975/3-fil-am-engineers-contribute-to-successful-perseverance-rover-landing/story/ accessed February 26, 2021

[5] See Footnote 4

[6] NASA, Mars Exploration Program, Edward Gonzales, https://mars.nasa.gov/people/profile/?id=22982, accessed February 26, 2021

Perseverance Rover to the NASA base on Earth, despite the electromagnetic interference from the units onboard;[7]

WHEREAS, Gregorio G. Villar III, Genevie V. Yang, and Edward Gonzales, deserve recognition for their role and exemplary performance in the high-priority science space exploration to Mars, for inspiring the Filipino youth, and giving pride to the Nation;

NOW, THEREFORE, BE IT RESOLVED, as it is hereby resolved, for the House of Representatives to commend and congratulate **Gregorio G. Villar III**, **Genevie V. Yang** and **Edward Gonzales** for their vital role in ensuring the success of the exploration mission to the Planet Mars launched by the National Aeronautics and Space Administration of the United States of America.

Adopted,

ROMAN T. ROMULO
Lone District, Pasig City

[7] See Footnote 6