

Jose Hernandez

Former NASA Astronaut; Entrepreneur; Farmer; Vintner; Author

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Topics

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- Science
- Space Exploration
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About Jose Hernandez

José was selected by NASA as a member of their 19th class of astronauts in 2004. After completing his training he was selected for a mission in 2007 and flew as the flight engineer in the 2009 14-day STS-128 mission aboard Space Shuttle Discovery to the International Space Station. In addition to his flight engineer duties José was also one of two principal robotic arm. Before being selected as an astronaut, José worked at NASA as the Branch Chief of the Materials and Processes Branch at the Johnson Space Center in Houston, Texas. There he oversaw the branch's activities in the areas of materials and processes, fracture control, nondestructive evaluation, failure analysis, and Nano materials research. His branch was also instrumental in participating in the investigation to help find the root cause of the Space Shuttle Columbia accident and reporting those results to the President's Columbia Accident Investigation Board.

Prior to this, José spent more than 15 years at Lawrence Livermore National Laboratory (LLNL) where he worked on the development of a space deployed X-Ray laser as part of the Strategic Defense Initiative. He then went on to co-develop the first full-field digital mammography system for the earlier detection of breast cancer thus opening a new area of research called computer-aided diagnosis and was recognized by both the U.S. Department of Energy (DOE) for this important contribution. He was also the Deputy Program Manager of the Highly Enriched Uranium Implementation program where his team was in charge of implementing a signed bilateral agreement between the U.S. and Russian Federation for the U.S. purchase of highly enriched uranium (HEU) in the form of low enriched uranium (LEU) derived from the dismantlement of Russian nuclear weapons. Finally José was invited to Department of Energy Headquarters in Washington DC to serve as the Laboratory's Program Manager in the Office of International Material Protection and Cooperation. Here he managed, integrated and allocated Department of Energy assets and expertise, including the national laboratories and contractors, in planning, directing, and implementing U.S. cooperation with the Russian Federation in the program of Nuclear Materials, Protection, Control and Accounting (MPC&A). Jose developed and implemented policies, strategies and plans to enhance U.S. national security and reduce threat of nuclear proliferation and nuclear terrorism. These goals were accomplished by rapidly improving the security of large quantities of attractive, weapons-usable nuclear material in Russia's nuclear weapons complex.

After Jose's 2009 Space Mission José was assigned to work at NASA Headquarters in Washington D.C. where he served as a Legislative Analyst and helped in the development of space policy, NASA's annual budget package and served as liaison with key Congressional members. Additional duties included the development of an effective strategy that promoted the President's new vision on Space Exploration. José is a former candidate for U.S. Congress, author of several books including his autobiography "Reaching for the Stars" and the children's version "The Boy Who Touched the Stars".

Today, José works as a consultant within the company he founded in 2012, Tierra Luna Engineering, LLC. Here, he works on his areas of interest that include aerospace consulting, renewable energy, and Science, Technology, Engineering, and Math (STEM) outreach. Projects he has worked on include serving as the technical liaison to Mexico's Secretaria de Comunicaciones y Transportes (SCT) where he helped develop the technical requirements to procure three communications satellites from Boeing. In this role he assisted in the procurement and the acceptance testing process. He also ensured the launch and orbit placement of the three satellites with three different launch service providers. Current activities include serving as a visiting professor at the Universidad Autonoma del Estado de Puebla (UPAEP) in Puebla, Mexico where he is mentoring UPAEP faculty and students and through a Space Act Agreement with NASA and the Mexican Space Agency, will assist UPAEP in the design, testing and launch of the first functioning satellite designed and built by a university in Mexico. The scheduled launch date is October 2019 aboard a Falcon 9 rocket as part of a Nanoracks payload.



He has also been the recipient of numerous awards including NASA Service Awards (2002, 2003), Lawrence Livermore National Laboratory "Outstanding Engineer Award" (2001), Upward Bound National TRIO Achiever Award (2001), U.S. Department of Energy "Outstanding Performance Commendation" (2000), Society of Mexican American Engineers and Scientists (MAES) "Medalla de Oro" recipient for professional and community contributions (1999), Hispanic Engineer National Achievement Award, "Outstanding Technical Contribution" (1995). Finally, José has been awarded 7 honorary doctorate degrees including his alma mater, University of the Pacific.

Education

Bachelor of Science, Electrical Engineering, 1985

University of the Pacific, Stockton, California

Master of Science, Electrical Engineering, 1987

University of California, Santa Barbara, California

Ph.D. Science and Engineering

University of the Pacific, Honoris Causa, 2006

National Hispanic University, Honoris Causa, 2010

Universidad Autonoma del Estado de Puebla, Honoris Causa, 2012

Universidad Popular Autonoma del Estado de Mexico, Honoris Causa, 2013

University of Laverne, Honoris Causa, 2014

Marymount University, Honoris Causa, 2015

Universidad Michoacan de San Nicolás de Hidalgo, Honoris Causa, 2016

Select Keynotes

• **Reaching For Your Own Stars: A Recipe To Succeed In Life**

Jose Hernandez's talk is an effective motivational talk where individuals leave so inspired, they re-evaluate and upgrade their personal and professional goals in life. This is accomplished by empowering attendees through his anecdotal stories of hard work and perseverance. He shares a simple yet effective recipe that serves as an effective tool in the empowerment process.

- ◊ Reaching your full potential
- ◊ Dare to dream big when you are willing to work hard for it
- ◊ Jose shares his 6 ingredient recipe to success that lead him to his goal of becoming an Astronaut
- ◊ His conference leads to re-evaluation and upgrading of the audience's goals

• **How to Thrive in Today's Challenging Environment**

Jose talks about his experience as an astronaut and includes training in social isolation environments and how to best deal with such situations. He folds this into his story of the importance of goal setting, hard work and perseverance. Finally, he shows a short video including a summary of his 14-day mission into space and the International Space Station as the flight engineer aboard the Space Shuttle Discovery STS-128 mission.

Select Book Titles

- **2018:** Reaching for the Stars: The Inspiring Story of a Migrant Farmworker Turned Astronaut
- **2016:** El Nino Que Toco Las Estrellas by Jose M. Hernandez (Children's Book in Spanish)
- **2012:** Reach for the Stars (Available in Spanish)

Select Articles

- [Alejandra Márquez Abella in Talks to Direct Biopic of Mexican American Astronaut \(Exclusive\)](#)

Alejandra Márquez Abella in final negotiations to direct 'A Million Miles Away,' based on the autobiography 'Reaching for the Stars' by space shuttle astronaut Jose M. Hernandez.

- [How this son of migrant farm workers became an astronaut](#)

CNN Money

- [Astronaut Jose Hernandez "Don't Ever, Ever, Ever Give Up"](#)

Spectrum Magazine

- [Former Migrant Worker Aims for the Moon](#)

Washington Post

