

Space Shuttle Program Commemorative Patch Contest

**Top 15**



*The Space Shuttle Program invited past and present Program workers to design an emblem marking the end of the shuttle era. The patch design contest takes its inspiration from a tradition among shuttle crew members.*

*The Program received 85 entries. The judges narrowed down the choices to 15 entries. A final selection will be made no later than February. The winning design artwork will be flown on a future shuttle mission.*



My logo depicts on the left side our flying shuttles, on the right Columbia and Challenger that were tragically lost. The stars between the names represent the Challenger astronauts, the 7 clustered stars represent Columbia astronauts. Everything else is self explanatory 1981 – 2010 program duration, red, white, and blue – America colors.



The shape and colors of the space shuttle commemorative emblem are derived from the original Space Shuttle Program emblem, reflecting nearly thirty years of excellence in human spaceflight operations. The emblem depicts the space shuttle orbiter soaring over Earth with an empty payload bay, symbolizing the completion of the Space Shuttle Program. The legacy of the space shuttle lives on through spaceflight programs that exist directly because of the shuttle's unique capabilities. The International Space Station and the Hubble Space Telescope represent all past and future exploration and science accomplishments made possible by the Space Shuttle Program. Fourteen stars acknowledge the sacrifice of the fallen astronauts of the 51-L and STS-107 missions. The "Space Shuttle" text is identical to the original Space Shuttle Program emblem, and the names of the orbiter vehicles acknowledge this remarkable fleet of spacecraft. The emblem is draped in red and white stripes to acknowledge the commitment and resolve of the United States to accomplish the impossible despite many adversities.



My patch design was set forth to symbolize the true spirit and honor of the Space Shuttle program. I also wanted to honor the brave men and women we lost on the Columbia and Challenger with the two bright stars in the background glowing as the shuttle travels towards them, and also the yellowed out names of the space ships around the circle. The red and white stripes and the white star symbolize the United States of America and the dedicated support for the program over the past 30 years. The actual shuttle is positioned right in the middle and tipping its wing to the world, as way to say thank you and farewell, just as a cowboy would wave goodbye into the sunset. Mission Complete and God Bless!



My design of the Space Shuttle Program Commemorative patch is based on Expanding New Horizons to our future in Human Space Exploration. I picked the most dramatic angle of the Shuttle I could find to highlight the magnificence of the most complicated space vehicle in the world, The sunrise/sunset means two things: (1) The beginning of a new program, and (2) The sunset days of the Space Shuttle Program. The stars honor the Astronauts who lost their lives on Challenger and Columbia, and they are in the same star configuration as they appeared on the STS-51L and STS-107 patches. The blue and red colors in the Commemorative patch are the same blue and red colors that are in the NASA Meatball, signifying what a large part the Space Shuttle has been to the essence of NASA. The dates on the patch represent the first and last flights of the Space Shuttle.



My patch represents the following:

- The large stars represent the 14 crew members lost.
- Small stars represent the 50 states.
- The Space Station and Hubble are depicted to represent 2 of the major shuttle program objectives

Several other small satellites could also be added.

- The 3 smaller shuttles represent 3 operational phases, launch, on orbit and landing. A 4th could be added to represent ground processing.
- The background globe represents the participation and support by other nations.



This design attempts to honor the generation long accomplishments and history of the first Space Transportation System – the “Space Shuttle.” One that saw us actually learn to live and work in space for long periods of time. When you think about what we knew when the program started and what we know now – the accomplishments are too numerous to list.

The focus of the design is the orbiter coming home for a safe landing at the conclusion of it’s final mission. The sun is setting on an extraordinary era while the constellation Orion rises in the sky – the next golden age of exploration? We hope so. The crescent Moon and the red “star” of the planet Mars as seen from Earth are prominently displayed as they represent the goals of the Constellation Program. The galaxy is a tribute to the Great Observatories launched by the space shuttle. Hubble, Chandra, Compton and the knowledge gained from those satellites. The International Space Station passes overhead. Now complete, it continues its mission of science and international cooperation.

The inner border is made up of 135 stars representing every shuttle mission. The first star is blue to honor the work performed in the atmospheric test of the orbiter “Enterprise.” The stars representing the STS-51L and STS-107 missions are gold to reflect on their ultimate sacrifice. The outer border prominently displays the colors of the Flag of the United States of America – to honor the people who designed, built, and supported the program in other ways. From the administrators to the clerical staff and maintenance workers – and to those who cheered on from the sidelines. The dates 1976-2010 were chosen because the first orbiter rolled out of the assembly plant on September 17, 1976 “Constitution Day” during our Bicentennial Year. The last wheels stop is scheduled to occur in September 2010.

The Mercury, Gemini and Apollo programs were the awe inspiring missions of my childhood. But the Space Shuttle Program was the one I had the honor and privilege to play a part in. It was an incredible achievement and one that we should all be proud of.





This design was purposely shaped to reflect the original Space Shuttle's program patch. Where the original patch showed the Shuttle launching toward the top of the triangle, this patch has the shuttle coming in for its last landing on its home planet Earth, after playing the important toll of transporting all of the necessary hardware to produce the International Space Station. The 14 white stars serve as a reminder of those astronauts who sacrificed their lives for science and the Space Shuttle program. The lone gold star at the top symbolized the excellence achieved by the STS system, its people and the technology developed during this time. It reminds us to strive for that same kind of excellence in the future of technology development as well as space exploration. And of course, the red white and blue of our Nation's flag makes us proud of these accomplishments in the last 30 years.



The Space Shuttle stack, comprised of the Orbiter, External Tank, and Solid Rocket Boosters, occupies the center of the patch in launch configuration. The United States flag overlays the stack to represent the contribution of the Space Shuttle to America's space program. The trajectory around the Earth depicts the orbital phase of the Shuttle's mission, while the thin layer of atmosphere symbolizes the ascent and entry phases. The 25 stars on the orbiter wing denote its Mach 25 reentry velocity. The top of the patch features the designations of the six named vehicles, which are further represented by the six rays emanating from the sun. The names Challenger and Columbia are set apart to memorialize the loss of those vehicles, as fourteen stars surround the Earth to honor the crewmembers of those missions.



To celebrate the upcoming 30th anniversary and retirement of the Space Shuttle Program, I aimed to design a patch that captured the visual essence and spirit of the program in an iconic and triumphant manner. As the Space Shuttle Program has been an innovative, iconic gem in the history of American spaceflight, the overall shape of the patch and its faceted panels are reminiscent of a diamond or other fine jewel. As the shape of the patch fans out from a fine point at the bottom to a wide array across the top, this evokes the vastness of space and our aim to explore it, as the Shuttle has done successfully for decades. The outlined blue circle represents the Shuttle's exploration within low Earth orbit, but also creates a dynamic fluidity from the bottom right around to the top left to allude to the smoothness of the Shuttle orbiting the earth. The diagonal lines cascading down into the top right corner of the design form the American Flag as the Shuttle has been one of the most recognizable icons in American history over the last three decades. In the top left and right panels of the design, there are 7 prominent stars on each side which represent the 14 crew members that were lost on shuttles Challenger and Columbia. Inside of the middle panel to the right of the Shuttle, there are 5 larger, more prominent stars that signify the 5 Space Shuttle vehicles NASA has had in its fleet throughout the program.

While there have been a multitude of accomplishments in such a long, successful program, I felt it more appropriate to focus on the symbolism and iconography of the Shuttle program as simplistically recognized by all Americans rather than attempting to reflect so many of the exceptional program accomplishments such as the Hubble Telescope, creation of the International Space Station, the success of the Remote Manipulator System, etc in such an ultimately confined space. Instead, I have designed this patch as an overall celebration of the much-beloved program and vehicle that so many people have dedicated themselves to in so many capacities over the years with a sense of vibrancy and mysticism that the Space Shuttle Program will always be remembered by.



The widely recognized silhouette of the Space Shuttle is shown with the sun setting over the earth. The setting sun represents the end of the shuttle era, which will lead to the rise of a new vehicle and usher in a new era of exploration. The earth below symbolizes the thousands of people all over the world that have contributed to the success of the space shuttle over the years and represents the knowledge gained about the earth through observation from the shuttle throughout its many missions. The letters STS stand for Space Transportation System and represents the unique ability of the space shuttle to transport large payloads to and from low earth orbit. The years 1981 and 2010 are shown to represent the 29 years of the space shuttle's life. The names of the five orbital vehicles are listed in the order in which they were built. The red chevron, in the alternate shape of the constellation Andromeda, is a wing representing aeronautics. This echoes the red chevron in the NASA meatball logo and represents the space shuttle's innovation and achievement in aeronautics. Finally, the black background of space with 14 stars represents the fallen crews of the Challenger and Columbia vehicles. The stars are outside of the shuttle silhouette to signify they will continue to be remembered and honored throughout the future of space exploration.



The design commemorates the many mission objectives the Space Shuttle Program has performed in its service of NASA. These include the completed assembly of the International Space Station, the deployment of numerous payloads, including the Hubble Space Telescope, Earth observation, and space science. As the heart of the Program, the Orbiter is boldly shown in orbit, at the ready for the next challenge.

In the background the U.S. locations and dedicated ground forces with primary responsibilities for the design, manufacture, and operation of the Shuttle are highlighted. The bold stars symbolize the 5 Orbiters; Columbia, Challenger, Discovery, Atlantis, and Endeavor, and recognize the 2 vehicles lost as stars whose light has faded. And finally, the orbital sunset reflects the end of Space Shuttle era at NASA.



The Space Shuttle vehicle is shown lifting off from Kennedy Space Center (KSC) on one of over one-hundred missions as the steam from the Solid Rocket Booster (SRB) sound suppression system rises around the vehicle. The left half of the External Tank (ET) is painted white as was done on only the first two Shuttle missions (STS-1 and STS-2), and the right half is bare foam insulation. The blue atmosphere on the horizon shows the curvature of the Earth. The Hubble Space Telescope (HST) on the left is one of many science payloads and satellites launched by the Shuttle, and the International Space Station (ISS) appears on the right. The HST was serviced/updated on four Shuttle missions, and has provided stunning images and data from our galaxy and beyond that contributed to scientific knowledge. The ISS is a microgravity laboratory for research in biology, medicine, materials, space technology and habitation, and is also an orbiting platform for observation of the Earth and its climate. Seven stars under the HST represent the crewmembers lost in the Challenger accident on January 28, 1986 and seven stars under the ISS represent the crewmembers lost in the Columbia accident on February 1, 2003. The moon in the distance beckons mankind to destinations within and beyond our solar system that will be explored and inhabited in the future. Satellites, telescopes and probes have already gathered data and images from some of these locations.



The design celebrates the Space Shuttle's thirty years of orbital operations (1981 – 2010) and the many great accomplishments of the Space Shuttle program.

The Space Shuttle Orbiter is shown prominently over the Earth. Three other spacecraft join the Space Shuttle in this design, symbolizing just a few of the many achievements made possible by the Shuttle program.

To the left of the Shuttle is the International Space Station (ISS), which was launched, assembled, and populated largely by Space Shuttle missions (together with Russian modules and vehicles).

Shown above the ISS is an astronaut floating free in space using a Manned Maneuvering Unit (MMU). The MMU was first demonstrated on a Shuttle flight.

To the right of the orbiter is the Hubble Space Telescope. The Hubble was launched into space, placed in orbit, and serviced several times using the Space Shuttle. Stars and a galaxy represent the expanding knowledge of the universe the Hubble has given us.

The Moon and Mars are illustrated to represent the future direction of human space exploration, and the many science achievements the Space Shuttle program has contributed toward those goals.

Six small stars represent the six orbiters in the Shuttle fleet. The names of the six vehicles of the fleet (including Enterprise) surround the design.

The two seven pointed stars, placed near the names of Columbia and Challenger pay tribute to the loss of those orbiters and the seven member astronaut crews of each of those missions.



The end of the shuttle era is represented by the five historical space shuttles soaring together into space as a final farewell. Above a rising sun, dawn of a new era for mankind exploration of space, and leaving behind their golden flight paths, each one of the shuttles is going into a different direction, leading the way for future voyages and generations of spacecrafts. Finally, the 14 stars are paying homage to the lost crew members of the Challenger and Columbia expeditions.





This patch commemorates the legacy and achievements of the people who have contributed to the Space Shuttle Program. The Space Shuttle Vehicle is shown here with the Orbiter, Space Shuttle Main Engines, External Tank, and Reusable Solid Rocket Boosters. Launching from Kennedy Space Center, silhouettes of the five Orbiters: Columbia, Challenger, Discovery, Atlantis, and Endeavour radiate outward from the Earth to the edges of the patch. The protruding Orbiters suggest the role of the Shuttle and its missions in pushing the boundaries of Exploration, Engineering, Science, Transportation, and Cooperation which are written on the border of the patch. These objectives are manifested in the images of the Hubble telescope, a satellite, the SpaceLab, an astronaut in a space suite, and the International Space Station. An eagle is portrayed on the satellite to recognize the joint venture of some missions between the Shuttle Program and the Department of Defense. The two gold orbiters represent Challenger lost during STS-51-L and Columbia lost during STS-107; while the fourteen gold stars honor the memory of the 14 astronauts aboard those missions. There are 134 white stars in the patch background, one for each of the Shuttle missions. The three vertical stripes comprised of the American flag leading to the silver star signify America's commitment to the continuation of future human endeavors in Space.