VULCAN LONG RANGE
SHUTTLE
SPECIAL ISSUE

TYPE: TRANSPORT
ACTIVE: 2270
ORIGIN: VULCAN
HIGH WARP SPEED
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SPECIFICATION

VULCAN LONG RANGE SHUTTLE

TYPE: TRANSPORT
ACTIVE: 2270
ORIGIN: VULCAN
PASSENGER: SPOCK
By the second half of the 23rd century most shuttles were capable of warp speed and could make interstellar journeys, however, their range and speed was relatively limited. When Starfleet wanted to make long journeys at high speeds they used a shuttle that could be docked to a long-range "warp sled." During the V’Ger crisis Spock used a Vulcan shuttle like this to join the crew of the newly-refitted U.S.S. Enterprise. The shuttle, which was named the Surak, after the father of modern Vulcan society, had a typical design for the period. It was fitted with impulse engines, was lightly armed, had a docking port at the rear and a completely closed interior without any windows, meaning the crew relied on their instrumentation at all times. In order to make the journey to the Enterprise it docked with a warp sled - essentially two warp nacelles that were connected in a catamaran shape by a bridging piece that contained the matter-antimatter reactor and provided a base for the shuttle. The combined unit was capable of high warp speeds that were comparable to a starship. When the Surak arrived at its destination, the shuttle separated from the warp sled and used its RCS thrusters to approach the Enterprise. Because the docking port was in the rear of the shuttle, it performed a 180 degree turn in the vertical axis to achieve the right approach vector before docking with a port on the rear of Enterprise’s first deck, allowing Spock to virtually walk straight on to the bridge.
DESIGNING THE VULCAN WARP SLED

For *STAR TREK: THE MOTION PICTURE* Gene Roddenberry wanted Spock to arrive in a shuttle that could catch up with the U.S.S. Enterprise.

As the V'Ger cloud approached Earth, destroying everything in its path, Admiral Kirk took command of the U.S.S. Enterprise and set off to intercept it. But Kirk’s ship was missing a vital component: his first officer, Spock. Kirk was pushing his crew hard, and the upgraded Enterprise was barely fit for service, so he was relieved when a Vulcan shuttle unexpectedly dropped out of warp, docked with the Enterprise, and delivered Spock.

As the Vulcan shuttle’s designer Andrew Probert remembers, Gene Roddenberry had some very specific requirements for the shuttle, which meant that it wouldn’t look like anything we had seen before. “The idea was that Spock needed to catch up to the Enterprise, and this had to be done in a shuttle. In order for this new shuttle to catch up to the Enterprise, Gene explained that it needed very large warp engines. Then, when it arrived, it had to hard-dock with the ship itself.”

Probert began by sketching out some possible approaches as he looked for a shape that appealed. His earliest drawings show that he was thinking about suspending a small ship between two massive nacelles. He theorized that since the Enterprise had just been fitted with state-of-the-art warp nacelles with a rectangular cross section, the shuttle would be older and have the same circular nacelles that we had seen on the television series. As he sketched, Probert encountered a problem: Roddenberry was clear that he wanted the shuttle to dock with the Enterprise, but the nacelles were so long that they were getting in the way.

Probert solved the problem by suspending the shuttle between two massive nacelles, each with its own warp engine. He then added additional detail, including a special nacelle for hard docking, and the design was complete.
way. “I had the major headache of trying to place very large engines on a shuttle that had to hard-dock with the Enterprise,” he remembers. In order to address this, he swept the nacelles forward so he could put a docking ring on the back of the shuttle. At this point he flattened the nacelles, but something about this approach wasn’t working for him. Then inspiration struck: the shuttle (or personnel pod) and the nacelles (or stardrive section), could actually be separate units. “Eventually,” Probert explains, “I came up with the idea of a warp sled, which the actual shuttle would leave behind to do its docking.” The nacelles now hung below the shuttle like a catamaran, with a platform on the top where the shuttle itself was mounted.

Once he had this idea, Probert wanted to make it clear that the new ship was Vulcan rather than standard Starfleet issue. At the time, there were no other Vulcan ships so there were no established designs for him to draw on. “What I did,” he explains, “was I went back to the episode ‘Amok Time’ where Spock and Kirk fight, and I noticed that the Vulcan gongs had a very distinct coffin shape. I took that as a section for the engine pods.”

This approach gave the nacelles a unique look, implying that Vulcan technology was subtly different from the rest of Starfleet’s. However, Probert didn’t want his “warp sled” to look like too much of a departure so he deliberately echoed the detailing on the inside of the Enterprise’s nacelles, which he had also designed alongside art director Richard Taylor. As always, he put a considerable amount of thought into working out exactly how the shuttle and the sled would operate together. “I put impulse engines on the back of the engine pods,” he recalls, “so the sled can basically fly independent of the shuttle.”

The design of the shuttle itself was intended to be an update of the Galileo, which had been seen on the television series. “There was a need to subliminally tie it in to that class of shuttle, just for continuity,” Probert explains. “The front was somewhat influenced by that. In that the Galileo ships can fly without the need for windows. On this design I totally eliminated the windows on the front and put kind of what I would refer to as a Teflon coating – a heat shield – there instead. I just put windows on the sides.”

As Probert remembers, this approach raised some eyebrows. When he initially designed the shuttle, he was working for Robert Abel and Associates, but by the time the shuttle was due to...
be filmed, Abel had been replaced by the legendary VFX producer Doug Trumbull. “When Trumbull saw the design, he said, ‘Well, there aren’t any windows in the front.’ I said, ‘No, they have viewscreen technology.’ ‘ Hmm,’ he replied, ‘Sure you don’t want windows in the front?’ ‘No, we really don’t need them.’ So he agreed to let it go as indicated.”

However, another of Probert’s ideas wouldn’t make it through. “I was very, very tired of gray spaceships, and wanted to come up with something different. So I thought, ‘What would the color gray look like in a red Vulcan atmosphere? Well, it would be sort of mauve, purple.’ And that was actually our base color for the shooting model of the shuttle. It’s got this kind of a mauve or warm purple coating with cooler purple panel details.” When the shuttle was painted, the Abel model shop added distinctive yellow RCS (Reaction Control System) thrusters and for the first time ever on a shuttle it had phasers mounted under the nose. These details would survive, but when it came to filming Trumbull and the producers decided that the purple shuttle was too much of a departure and neutralized the paint scheme so that it came out as a kind of warm grey.

As part of the design process, Probert created a series of storyboards that show how the shuttle would leave the warp sled, and flip over before docking with the back of the saucer. One of these storyboards showed the shuttle approaching the Enterprise from inside the ship through the windows of the officer’s lounge. Probert also produced a key frame showing the approach through a different set of windows from a lower deck.

The live action footage had been completed before Trumbull joined the production, and as Probert remembers, Trumbull was frustrated to discover that the footage had been shot in a such way that he couldn’t simply add the shuttle to it. “There was nothing he could do without reshooting everything so Doug Trumbull had a very large miniature built of that room, and they filmed the Vulcan shuttle’s arrival through those windows.” The last shot shows the shuttle reversing toward the sled through those windows after it delivers its passenger. Neither the shuttle or the warp sled would ever appear again, but it remains one of the most memorable and intriguing cameos ever made by a STAR TREK ship and, when asked, Probert said that it was his favorite design for STAR TREK: THE MOTION PICTURE.
The model of the shuttle was built at Magicam during Robert Abel’s tenure in charge of the VFX. Probert was involved in detailing the model during the painting stage and had the opportunity to be photographed with it. The effects were eventually shot by Douglas Trumbull’s team after he assumed control of the film’s effects.
It was by no means a given that Spock would appear in STAR TREK: THE MOTION PICTURE. In 1978, when work started on the movie, Leonard Nimoy had chosen not to be involved with the proposed television series that eventually morphed into the first STAR TREK feature. Given that Nimoy had written a book called ‘I Am Not Spock,’ many fans thought that he had decided to distance himself from the franchise. However, years later, Nimoy would say it wasn’t that he wasn’t interested in returning to play Spock, rather that there weren’t good enough reasons for him to want to.

He had been attached to the proposed film ‘Planet of the Titans,’ which was in the early stages of development in 1977, but Roddenberry and Paramount hadn’t arrived at a deal that would have persuaded him to return for the aborted television series that took its place. On top of this, by 1978 he was involved in a legal dispute with the studio about merchandising rights. Unwilling to recast the role, Roddenberry created a new Vulcan called Xon, who would have attempted to follow in Spock’s footsteps.

When Paramount decided to turn the television series into a film, the script for the TV pilot was chosen to become the movie script. At this point, Robert Wise signed on to direct. Wise admitted that he had limited knowledge of STAR TREK, but as he recalled, his family were a different matter:

“I took the script home, and my wife, who is a Trekkie, and my daughter both read the script and said that you can’t even think of making a STAR TREK: THE MOTION PICTURE without Spock! He’s an absolutely vital character in the series. So one of my first jobs was to go to meet Leonard and convince him to come back aboard and work on the film. When I told him how the film was going to be approached, he decided he would come back on board with the ears on and play the character.”

ESSENTIALLY HUMAN

As Nimoy remembered, Wise convinced him that THE MOTION PICTURE would be a worthwhile project and he and the studio found a way of resolving their legal dispute. “We resolved that, and then they said, ‘Now will you read the script?’ I said, ‘Yes, I would.’ And of course this was a script that had no Spock in it. The next question was, what are we going to do about Spock?”

Roddenberry and his co-writer Harold Livingston turned to reworking the script to include Spock. At Nimoy’s urging they also worked hard to create an arc for Spock who had finally rejected emotion in favor of pure logic, only to discover that there was something essentially human and illogical about what V’ger was searching for. However, throughout the filming, Nimoy felt that the approach the film was taking wasn’t in keeping with what had made STAR TREK successful in the first place:

“The story was very unlike the STAR TREK we had done,” he said. “It was a different kind of STAR TREK. I suppose the feeling was that it was 11 years later and we must be more sophisticated. We must be more grand. We must be more cool and reserved and ambiguous, and more ‘2001.’”

Ultimately, everyone felt that STAR TREK: THE MOTION PICTURE was a beautiful film with stunning effects and fantastic music, but that it somehow fell short. Nimoy recalled that at the time he had no idea that there would be sequel. “I had not a single thought that we would make another STAR TREK project. If you had asked me I would say, ‘No, this will be the finish of it.’”

However, far from being the end of something, STAR TREK: THE MOTION PICTURE was the beginning. For Nimoy in particular it would open up a new chapter in his life. He only returned to make STAR TREK II after the producers tempted him with the idea of showing Spock’s death, and only agreed to make STAR TREK III if he could direct. Both those ideas turned out to be inspired and led to Nimoy becoming an admired director and to Spock being reborn.