

## BUILDING THE ULTRA-REAL 'OFF-WORLD' ESCAPE VESSEL FOR 65

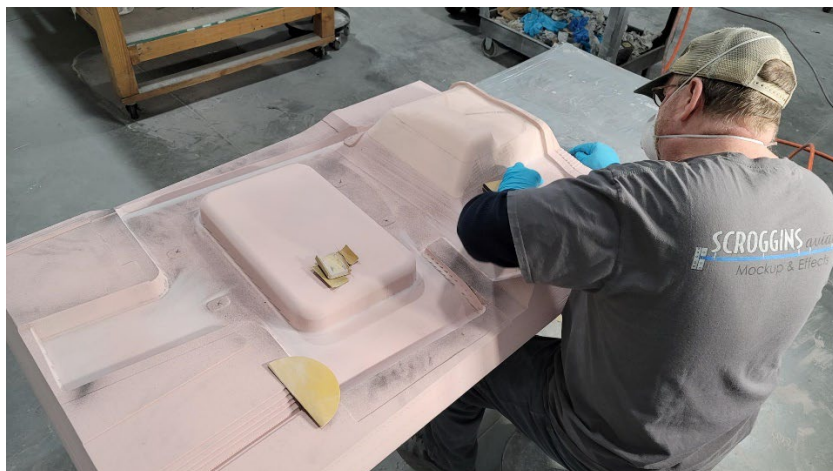
By EVAN HENERSON

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Photos by Doug Scroggins courtesy of Scroggins Aviation, except where noted.



The Scroggins team works at assembling the escape vessel by attaching the plastic-formed panels and adding the control boxes to the inner walls. (Scroggins)



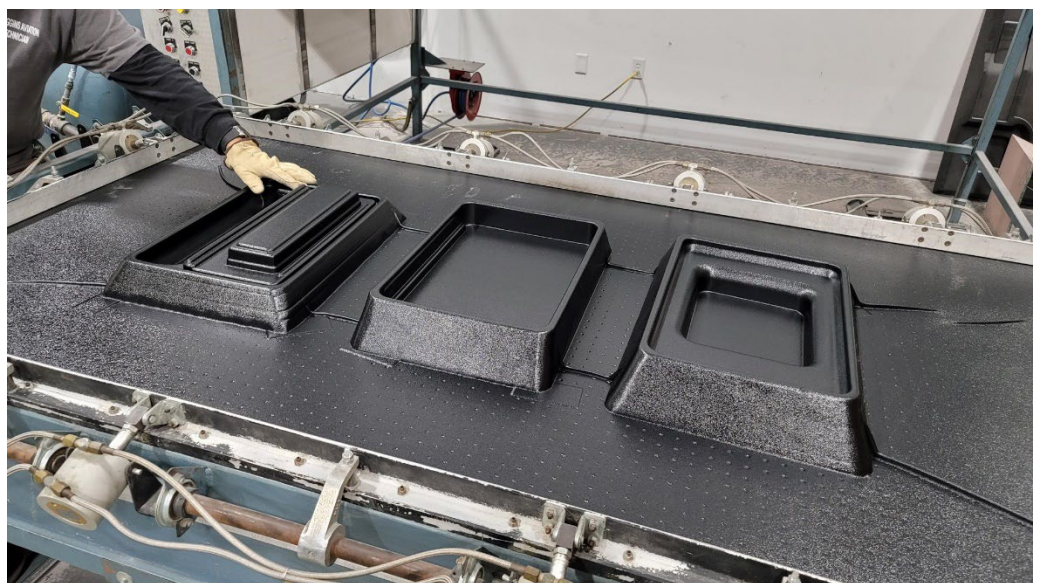
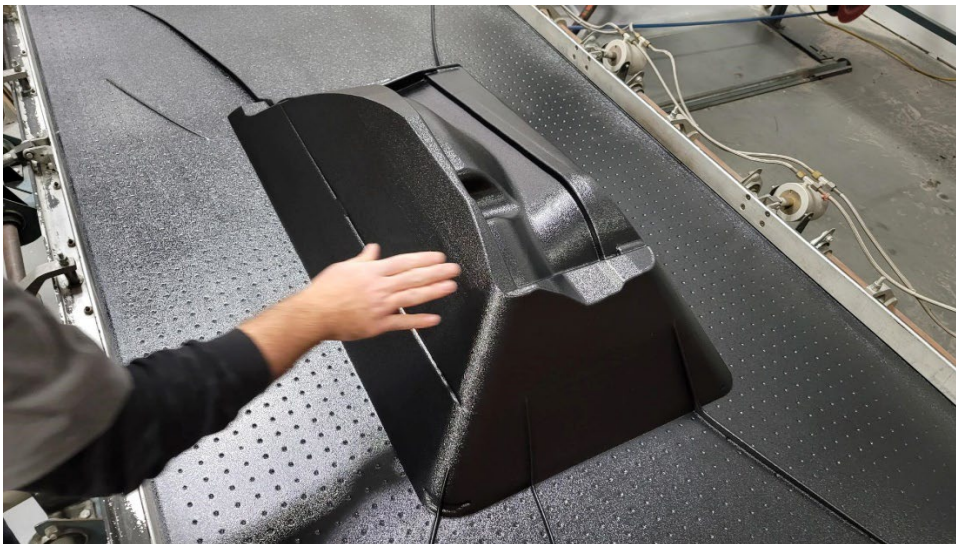
Worker cleaning the surface of a CNC'd 20-lbs. Persian board foam part before vacuum-forming it out of ABS sheets. (Scroggins)

Leave it to an aviation company that supplies airplanes and helicopters to the movies to help Adam Driver's interplanetary explorer Mills take flight. Without an assist from Scroggins Aviation Mockup & Effects, the hero of the film 65 might have found himself stuck on a doomed planet, victim to rampaging dinosaurs, an apocalyptic media shower or both.

“It just always bothered me [the vehicle cockpits from 1977's *Star Wars*], and so the one thing I want to do is create something that was really unique and different that looked like it was off-world, so we did just that.”

—Doug Scroggins, Founder/CEO, Scroggins Aviation Mockup & Effects

To this point, the Las Vegas-based Scroggins Aviation has been creating aviation mockups and effects for a range of movie and TV productions with a diverse slate of credits ranging from *Iron Man 3* and *Manifest* all the way up through *Spider Man: No Way Home* and *Black Adam*.



Vacuum-forming the parts (Scroggins)



But while they have created countless cockpits and choppers, the one genre largely absent from Scroggins' output has been craft for science fiction films, with the 2018 Hulu series *The First* being – fittingly – the first time that the company was enlisted to mock up an actual spacecraft.

“We have been looking to do more in the science fiction world,” says company Founder and CEO Doug Scroggins. “For *The First*, we built an Orion space capsule, and the detail was just out of this world. 65 was a major take-on for us, and I was really honored to do it.”



Interior of the escape vessel shows plastic panels in place, painted in primer and ready for color. Electrical wiring was run to key locations for monitors and lighting. (Scroggins)



Overview of the escape vessel in its final stage of assembly at Scroggins Aviation's shop. (Scroggins)

In 2020, Scroggins was contacted by longtime friend and professional colleague, Kevin Ishioka, the Production Designer on 65 (which then carried the working title *Zoic*). The original request was for portions of the mothership including the airlock doors, control boxes, panel and one crew seat.

Scroggins takes pride in the detail of the interiors of its craft. An unabashed *Star Wars* fan, Scroggins acknowledges that the Home Depot-ish look of some of the vehicle cockpits from the 1977 classic have always been irksome. “It just always bothered me,” says Scroggins, who added that he would one day love to work on a *Star Wars* film, “and so the one thing I want to do is create something that was really unique and different that looked like it was off-world, so we did just that.”

“I’m thinking, ‘Oh, that [the spinning crew seats] changes everything. There goes all the physics, the engineering and everything. Now we’re going to need to have humans in this thing, and they’re going to be encapsulated while it’s being spun around in all kinds of different directions. Now we’re going to have to have an engineer sign off on this.’”

—Doug Scroggins, Founder/CEO, Scroggins Aviation Mockup & Effects

Ultimately, as production needs developed, Scroggins Aviation was also asked to take on the escape vessel and the two crew seats that are featured prominently in the end of the film. Those seats would actually end up holding people and would need to be able to take the pounding of a motion-based rig or gimbel. Then came another wrinkle. The script called for the rig to be on a gyro platform that would enable the characters to be spun around. And that, says Scroggins, is where things started to get interesting.



Escape vessel onstage, placed in a special effects rig. (Photo: Kevin Ishioka)

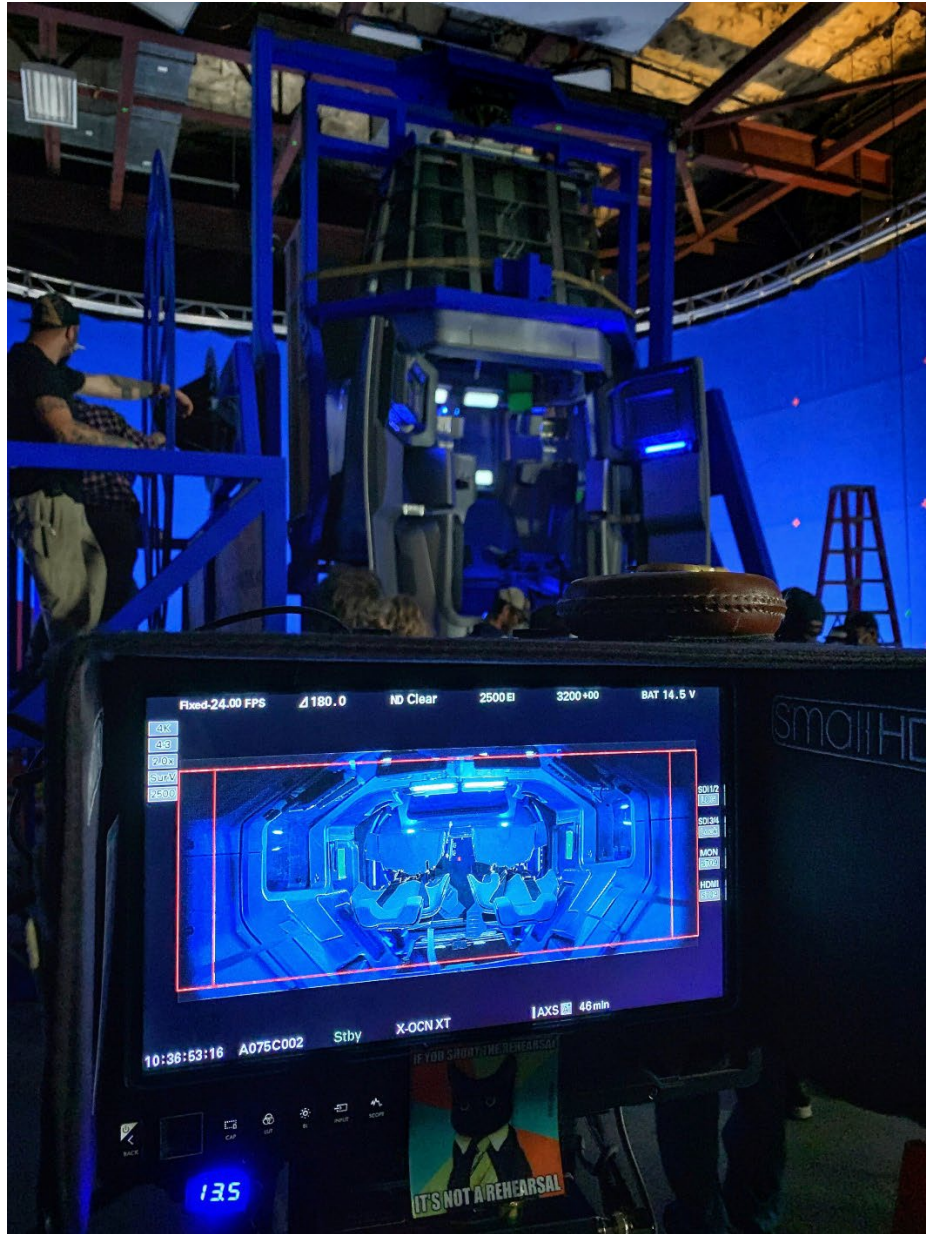




Inside the escape vessel cockpit, dressed and ready for filming. (Photo: Kevin Ishioka)



Escape vessel in place, dressed and ready for filming. (Photo: Kevin Ishioka)



Filming inside the escape vessel for the scene where Adam Driver's and Ariana Greenblatt's characters attempt to launch to escape the destruction of Earth. (Photo: Kevin Ishioka)

"I'm thinking, 'Oh, that changes everything,'" Scroggins recalls. "There goes all the physics, the engineering and everything. Now we're going to need to have humans in this thing, and they're going to be encapsulated while it's being spun around in all kinds of different directions. Now we're going to have to have an engineer sign off on this."

Scroggins ended up building three chairs composed of water-jetted steel, fortified by 10-lb. foam. "We vacu-formed the parts and put the fiberglass in there and created the molds to hold it up," Scroggins says. "The original seat was built for the straight up-and-down motion, not for the gyro arrangement. So that one seat you see when Adam Driver is in the cockpit seat and he's sitting there flying the ship – that's the seat."





Art render of the escape vessel section that Scroggins Aviation was contracted to build. (Photo: Kevin Ishioka)



Art render of the escape vessel in full digital mockup. (Photo: Kevin Ishioka)

“We created a bible for the entire build. I knew we were going to have cast members inside the thing, and they’re going to roll it on a rotisserie, so I wanted to make sure that all the different materials we were using would be OK.”

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The two additional chairs for the escape vessel were solid as well, but also had to be light enough so they could be placed on a device that could spin and, in Scroggins words, “shake the bejesus out of them.”

The company did indeed end up consulting with an engineering firm to approve the finished product, something that is not necessarily an industry standard. “We created a bible for the entire build,” Scroggins says. “I knew we were going to have cast members inside the thing, and they’re going to roll it on a rotisserie, so I wanted to make sure that all the different materials we were using would be OK.”

Build for the airlock doors, upper inner section, steel and wood inner structure with ABS vacuum-formed panels on the exterior. (Scroggins)







Build for the airlock doors, upper inner section, steel and wood inner structure with ABS vacuum-formed panels on the exterior. (Scroggins)

Final assembly of the doors added to the outer frame. The three-part door were built for the spacecraft set. (Photo Kevin Ishioka)



“We had [the escape vessel] completely covered, and we shopped it under secrecy. We didn’t want anyone to eyeball it or take any pictures.”

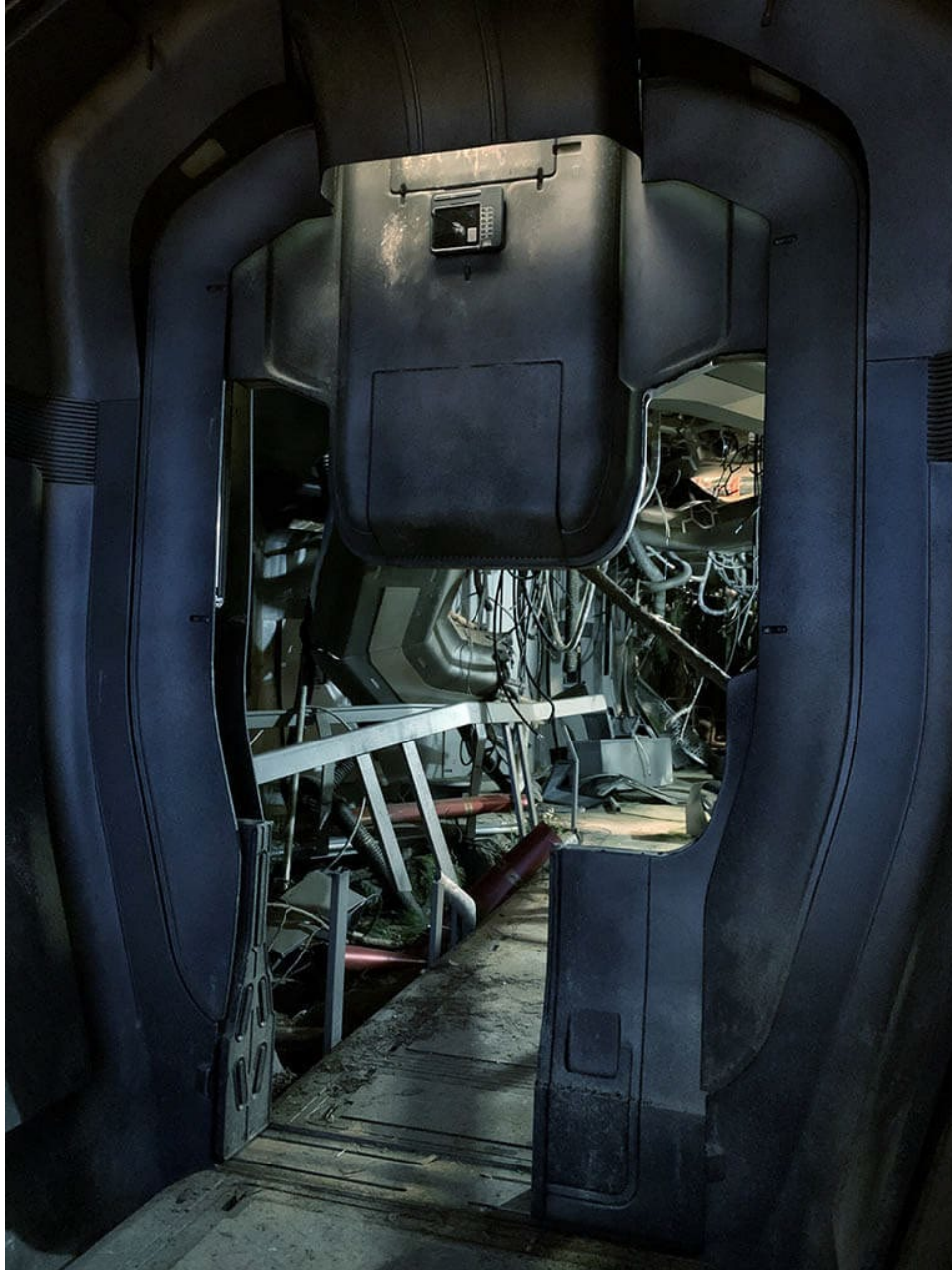
—Doug Scroggins, Founder/CEO, Scroggins Aviation Mockup & Effects

The build took place while much of the industry was in lockdown at the height of the COVID pandemic. In true across-the-globe collaborative fashion, Ishioka was coordinating the film’s production design from Japan while Scroggins was in Canada working on another movie, and the bulk of his eight-person team was at Scroggins Aviation’s shop in Las Vegas. The company also operates an overflow facility in Mojave, California.



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Air lock door added to the set. (Kevin Ishioka)

When the escape vessel and seats were finished, they were loaded on to a flatbed truck that transported them to the production base in New Orleans in time for the start of production. “We had it completely covered, and we shopped it under secrecy,” Scroggins reveals. “We didn’t want anyone to eyeball it or take any pictures.”



Three seats were built for the film, one for the mothership and two for the escape vessel. (Scroggins)



The seat in the mothership cockpit. (Kevin Ishioka)





Doug Scroggins with the escape vessel. (Scroggins)

While the escape vessel sequences late in the film showcase the work of Scroggins Aviation most vividly, moviegoers can also see their handiwork within the mothership early in 65. Between screen panels and touch screens, control panels, airlock doors and other cockpit devices that they constructed and supplied, the Scroggins team made sure that no movie-goer would ever accuse this science fiction film of looking low-tech.

After seeing how everything turned out onscreen in 65, Scroggins declared himself both satisfied and hungry for his firm to take another adventure. “The excitement of seeing the outcome just literally made the hairs on my arm start lifting up,” he says. “This was an original film with a good premise, and overall, on the visual effects side, it looked like they nailed it.”