

EAGLEMOSS
COLLECTIONS

STAR TREK™

THE OFFICIAL STARSHIPS COLLECTION



U.S.S. ENTERPRISE™
NCC-1701
SPECIAL ISSUE

CONSTITUTION CLASS

LAUNCHED: 2245

LENGTH: 442.06 M

CAPTAIN: CHRISTOPHER PIKE

U.S.S. ENTERPRISE

SPECIFICATION



CLASS: CONSTITUTION

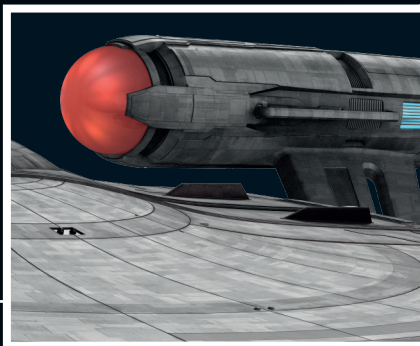
CONSTRUCTED: SAN FRANCISCO, EARTH

LAUNCHED: 2245

CAPTAINS: CHRISTOPHER PIKE

WEAPONRY: PHASERS

PHOTON TORPEDOES

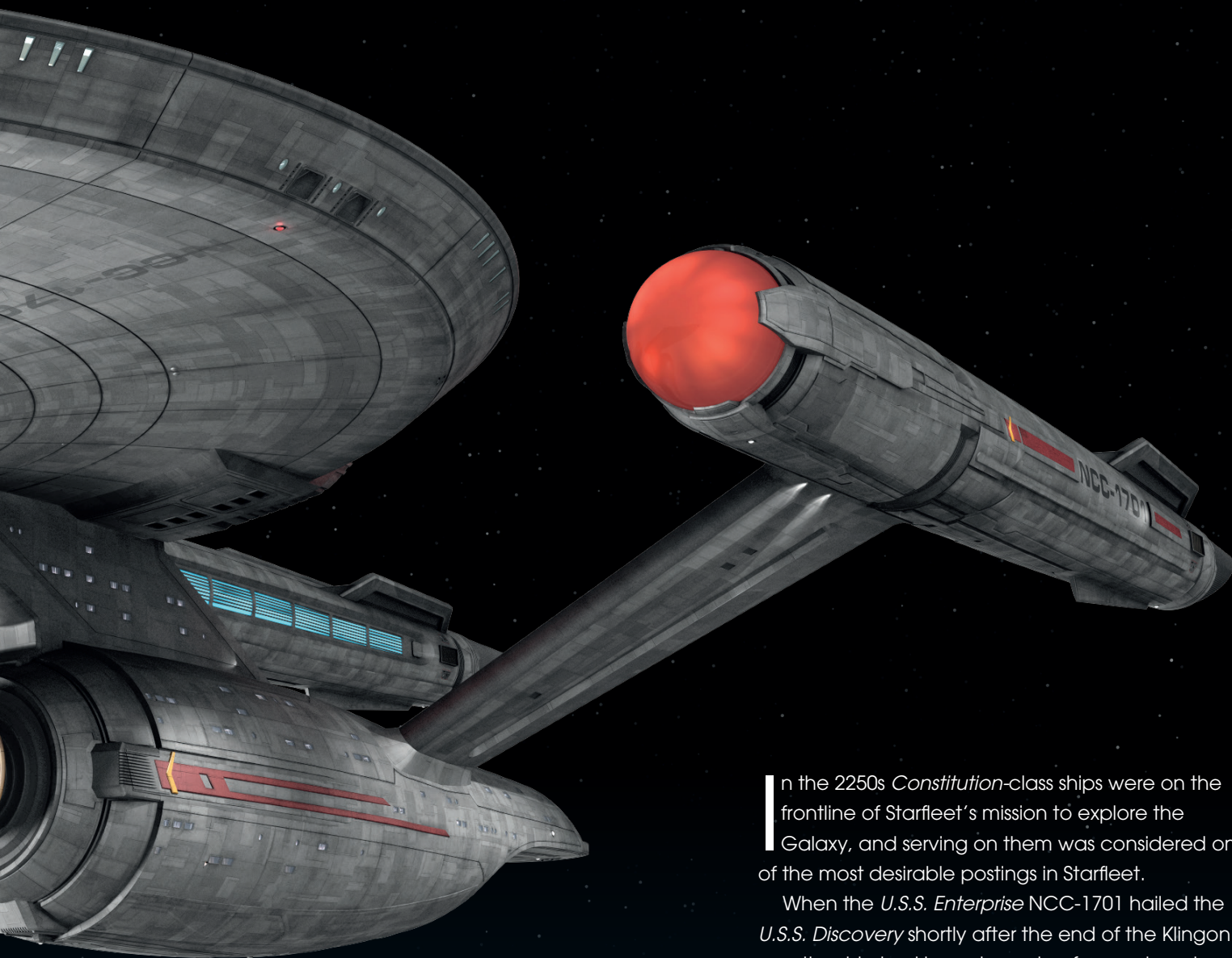




U.S.S. ENTERPRISE

In 2257, the *U.S.S. Enterprise* NCC-1701 was under the command of Captain Christopher Pike.

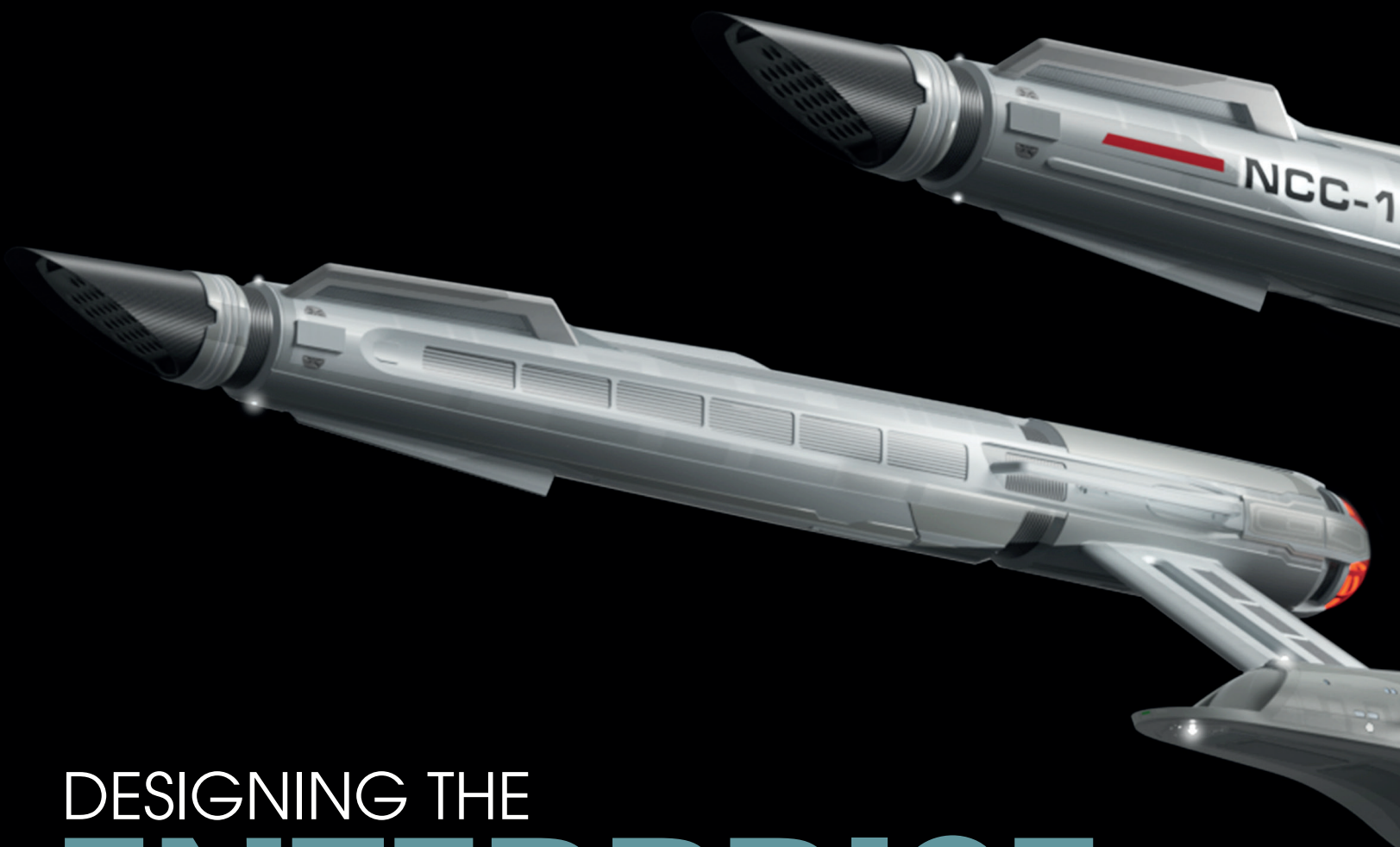




In the 2250s *Constitution*-class ships were on the frontline of Starfleet's mission to explore the Galaxy, and serving on them was considered one of the most desirable postings in Starfleet.

When the *U.S.S. Enterprise* NCC-1701 hailed the *U.S.S. Discovery* shortly after the end of the Klingon war, the ship had been in service for nearly a dozen years. It was under the command of Captain Christopher Pike, one of Starfleet's most highly regarded officers. His first officer was a woman known as Number One. His science officer, Spock was the first Vulcan to serve in Starfleet.





DESIGNING THE **ENTERPRISE**

Recreating Matt Jefferies' classic design for *STAR TREK: DISCOVERY* was a labor of love for the art department.

As *STAR TREK: DISCOVERY* approached the end of its first season, the art department got a fateful call. They had heard rumors that the original *Enterprise* would appear in season two, but now the decision had been made to bring it forward to the season finale. "Before our production designer Todd Cherniawsky left," John Eaves remembers, "he gave us the *Enterprise*. He goes, 'We have an *Enterprise* coming up and that's your next task.' "

By this point the art department had been

established as a small team of three. Eaves' job was to produce initial sketches, which he then passed to Scott Schneider, who turned them into 3D models. Eaves would normally paint extra details on to these before handing them on to William Budge, who would work on the final level of texturing and details, including the position of all the necessary tech and the exact scale of the model.

"We work as a trio with the production designer," Eaves explains. "It's amazing to watch this process



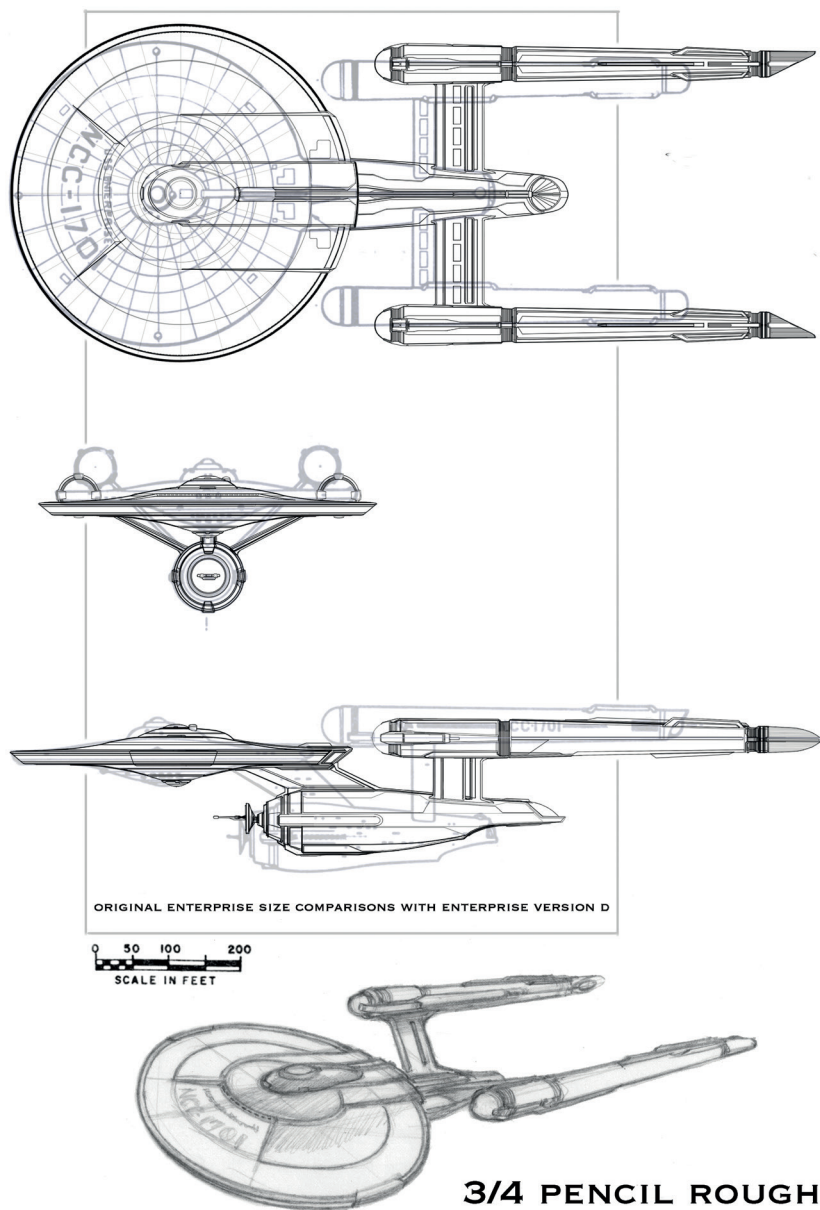
go. Scott's doing the modelling and he'll pass it to William, who will make additions and changes, like adding shuttlebays and stuff. It's a really cool collaboration."

The three men all worked remotely and never needed to meet. In fact, Eaves says that he and Budge have still only met over the internet. All of them were excited to get the chance to work on the *Enterprise*. "When we started developing it we had no script," Schneider smiles. "We just had an outline. Aside from a few minor notes on the way,

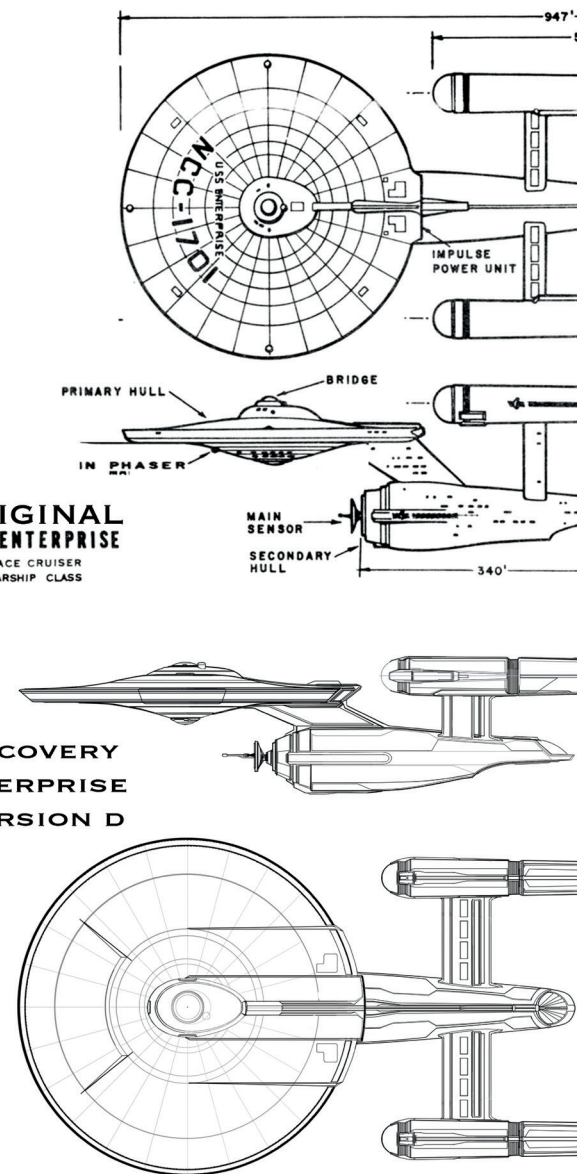
there was very little feedback so it was pretty much left to the three of us. This was our golden hour."

Initially Eaves remembers, there was a suggestion that the *Enterprise* might look very different to Matt Jefferies' original version, and would have a design that was more in keeping with the other ships in the *DISCOVERY* era, but this idea was soon abandoned. Instead the brief was to come up with *DISCOVERY*'s version of the original.

▲ The art department reasoned that the *DISCOVERY* version of the *Enterprise* was the same ship that Kirk commanded at an earlier stage of its life, before several refits.



3/4 PENCIL ROUGH



ORIGINAL USS ENTERPRISE

SPACE CRUISER
STARSHIP CLASS

DISCOVERY ENTERPRISE VERSION D

▲ Eaves began the process by producing a series of drawings that showed how the original design could be modified to make it look more in keeping with the other ships we saw on *DISCOVERY*.

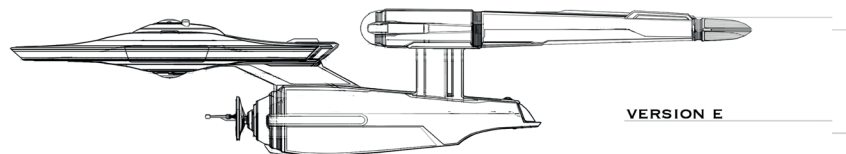
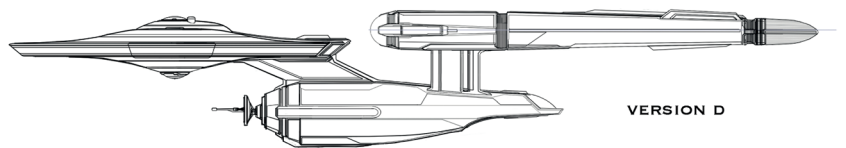
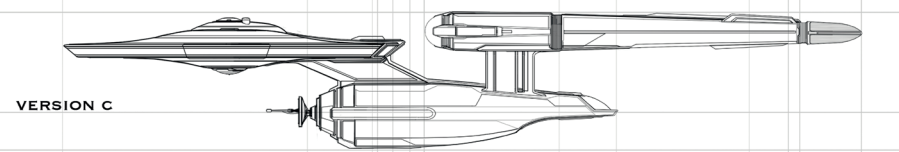
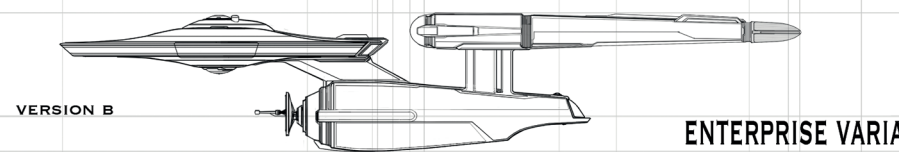
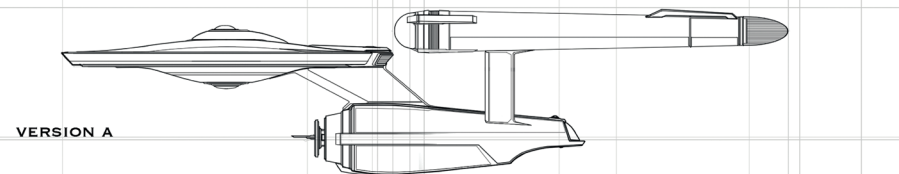
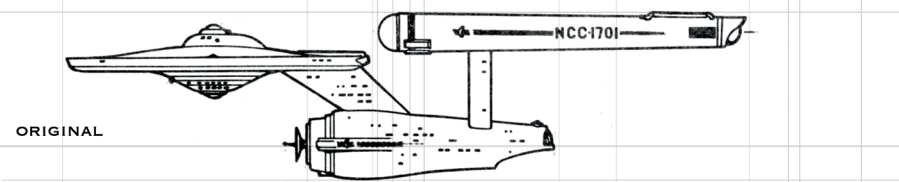
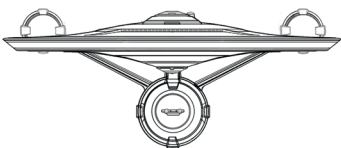
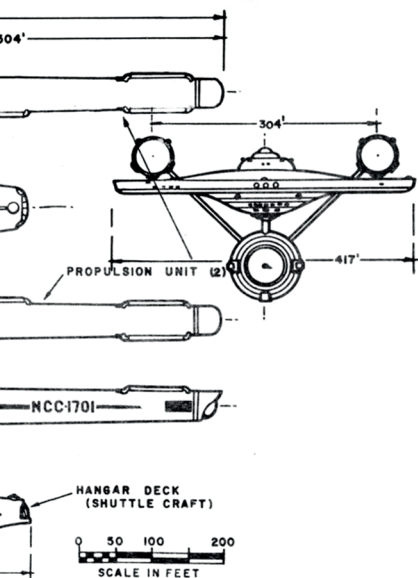
Eaves started the process by producing a series of sketches showing how the classic ship could be altered. “Alphabetically I did versions A through J. The sketches were all pretty much the same – it was about streamlining the look of the ship. A couple of things increase and a couple of things decrease. It was just about working out the form to get as close as possible to the original and yet have the sleek, unique *DISCOVERY* look to it. F was my favourite and that wound up being the one that Todd liked the most.”

The team decided that the *Enterprise* they were designing would literally be the same ship Kirk

would command, just at an earlier stage in its life. Their theory was that various components such as the warp nacelles or the impulse engines would be replaced over time, so they set about designing more primitive versions of them.

EARLY VERSION

“We were trying to do things that implied it could transition to the original Matt Jefferies ship later on,” Eaves explains. “We wanted to create links with ships that had come before. For example, we rotated the exhaust ports on the back of the nacelles 90 degrees inward. On the *Phoenix* those



JOHN EAVES 4-17

had faced each other like that. I thought that was really cool artistically."

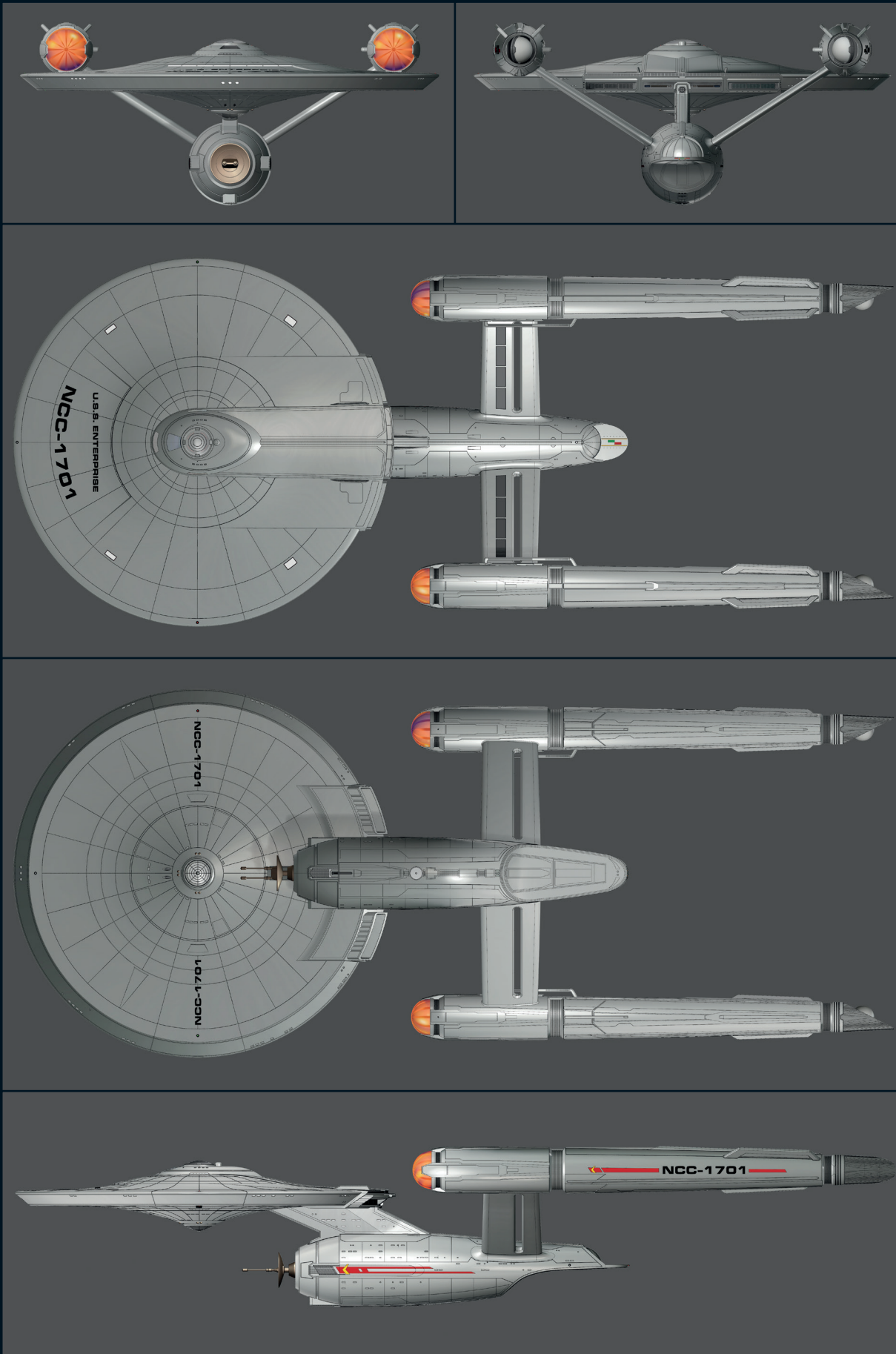
Once Eaves had completed his sketches he passed them on to Schneider who created the first 3D model. "Scott started immediately," Eaves says. "Usually you send sketches in and it's a long time before you start to see a model process begin but this was immediate."

BRIDGING THE ERAS

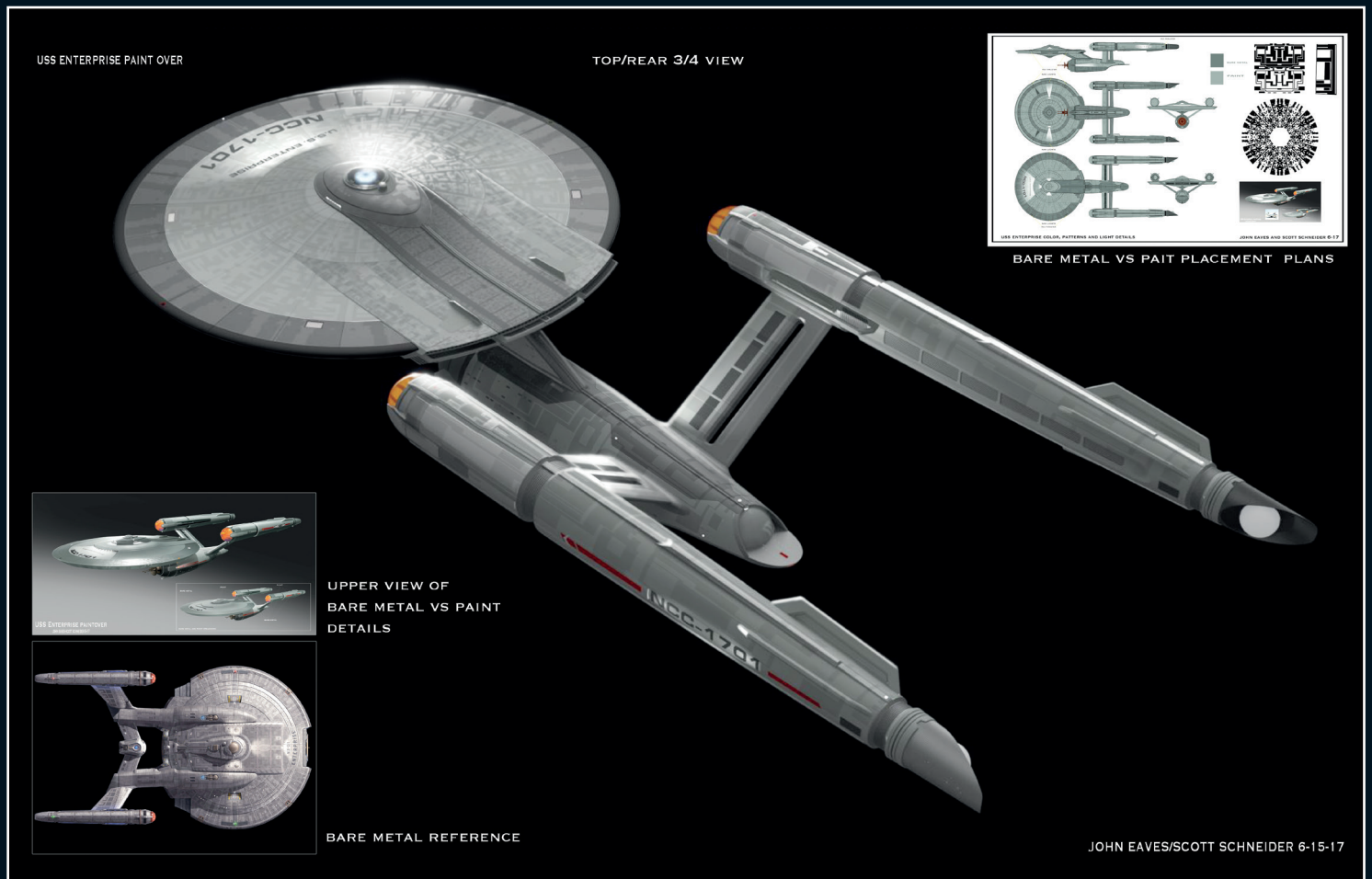
As Schneider worked on the model he added to Eaves' original design, trying to include subtle details that could be found on other Starfleet ships.

"We were constantly trying to tie into both the past and future architecture of Starfleet ships," he says. "It was really a fun part of the whole process. We tried to tie stuff into the NX-01 and stuff that would come in the future, like the *Enterprise-B*. So on the bottom of the impulse engines it has these little vent details that you'd see on the bottom of the B. We were trying to tie into the *DISCOVERY* era so we had a double-pronged antenna on the front and the wedge on the top of the lights."

Everything the team produced was passed on to the production designer for their input. Around this time Cherniawsky moved on to another job,



◀ Once Schneider had Eaves's drawings, he produced a 3D model of the ship so that they could look at it from every angle and work out all the details. Even at this early stage, the basic lines were in place, but over the following months the team would refine a lot of the details.



▲ One of the biggest questions was what the exterior of the ship should look like. The team experimented with an aztec pattern, but suggested that part of the ship could be left as bare metal, like the *Enterprise NX-01*.

Roddenberry has a call out number. That was really a neat thing, but I don't think that made it through to the final model."

Schneider is clear that they didn't just want to create links with the TV version of the ship, but they also thought about the redesigned version of the *Enterprise* that appears in the first movie. "We wanted to show some connection to the motion picture refit. I know there are some purists out there who think it should look exactly like it did in the sixties. My feeling is that there isn't that much time between the five-year mission and the refit, so it just doesn't make sense that they took a big technological leap in two and half years.

ADDING DETAILS

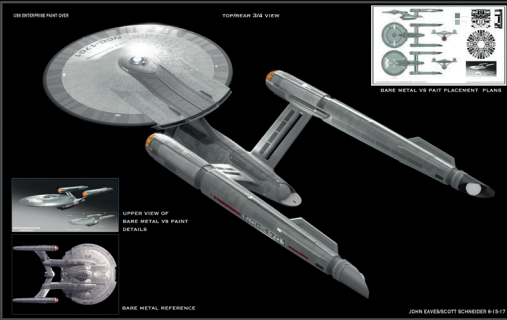
"What I wanted to do was get some of those details that you see on the refit in there, but to make it look as if they were in their earlier stages. They've got aft torpedoes here and eventually on the refit they move it to the neck. So there's little things like that."

"A lot of it's overkill," Schneider laughs,

"because who knows if we'll ever see it. William was constantly keeping us in check. He was watching over things to make sure we maintained continuity with all the other ships from the *DISCOVERY* era. There were times when he'd say, 'OK this is great, but we've got established details on the rest of the fleet that we need to carry over.'"

As Eaves explains this wasn't difficult because when he was designing the other *DISCOVERY* ships, he'd concentrated on establishing details that were unique to that era. "On the other ships we had done exterior lighting so we carried that over, where there was segmented lights in front of the bridge. We also had a lot of stuff you see on the *DISCOVERY* ships like the little fins on the top and the F-104 blade on the back and the bottom of the nacelles."

One of the things that all the artists appreciated was the amount of time they had to work on the design of such an important ship. "I started in April and we delivered it in October," Schneider remembers. "That's unusual. You normally only



▼ Schneider produced renders that showed the ship from a variety of angles so the team could examine all the details.



BOTTOM 3/4 VIEW OF PAINT SCHEME

JOHN EAVES/SCOTT SCHNEIDER 6-17

▼ The 'new' Enterprise combined details from the original such as the design of the Bussard collectors with new elements that were designed for DISCOVERY such as the lights that shone on the registry.



PRODUCTION DESIGNER
TD

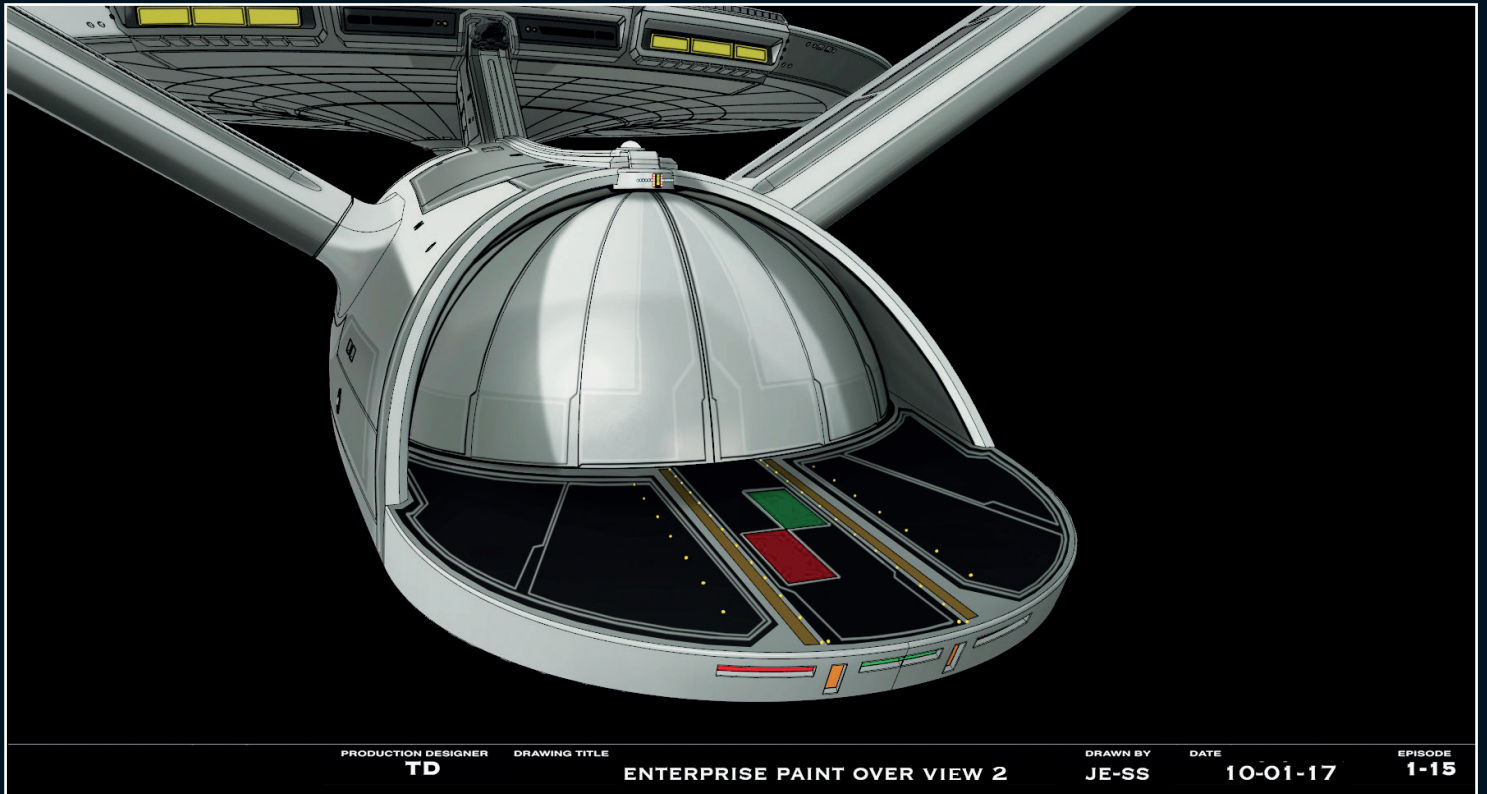
DRAWING TITLE

ENTERPRISE PAINT OVER VIEW 1

DRAWN BY
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DATE

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▲ One of the modifications involved creating an extended landing platform at the back of the shuttlebay.

▼ Schneider added functional details such as the RCS thrusters on the back of the warp nacelles.

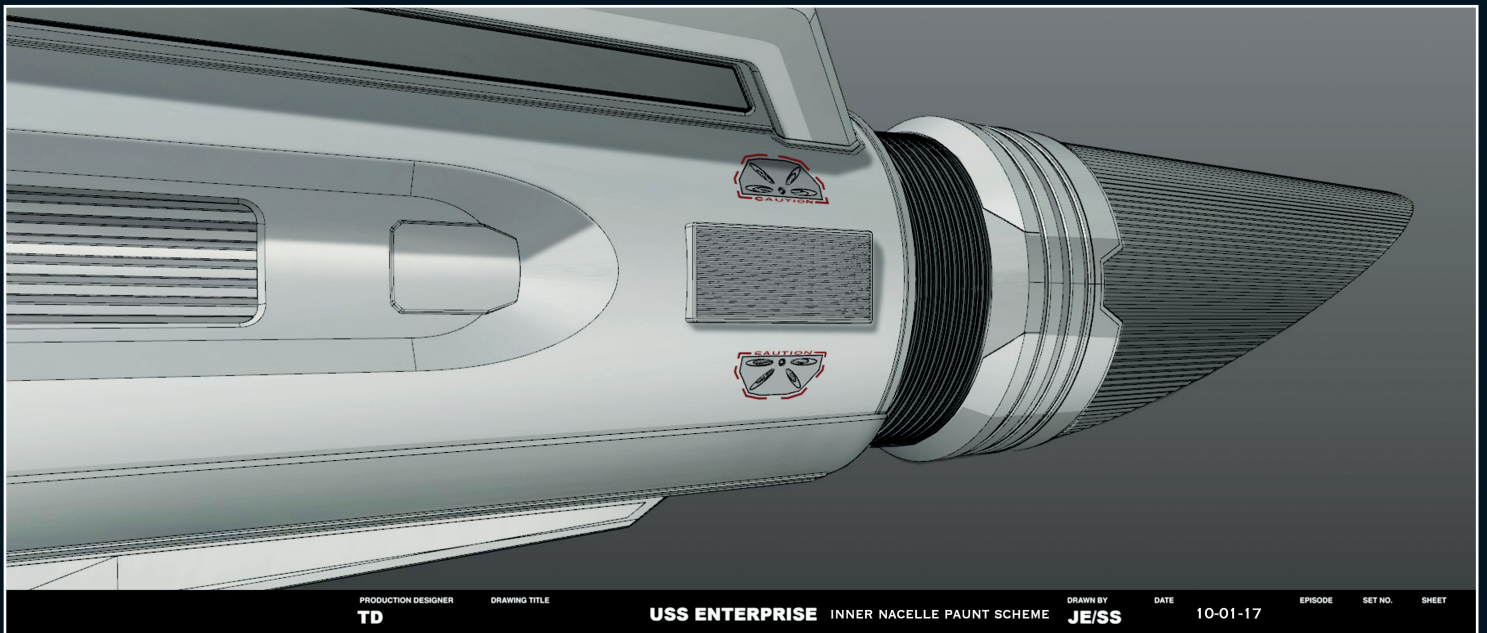
have a matter of weeks to design a ship, if that. Realistically, I had the model done within a month but we noodled it."

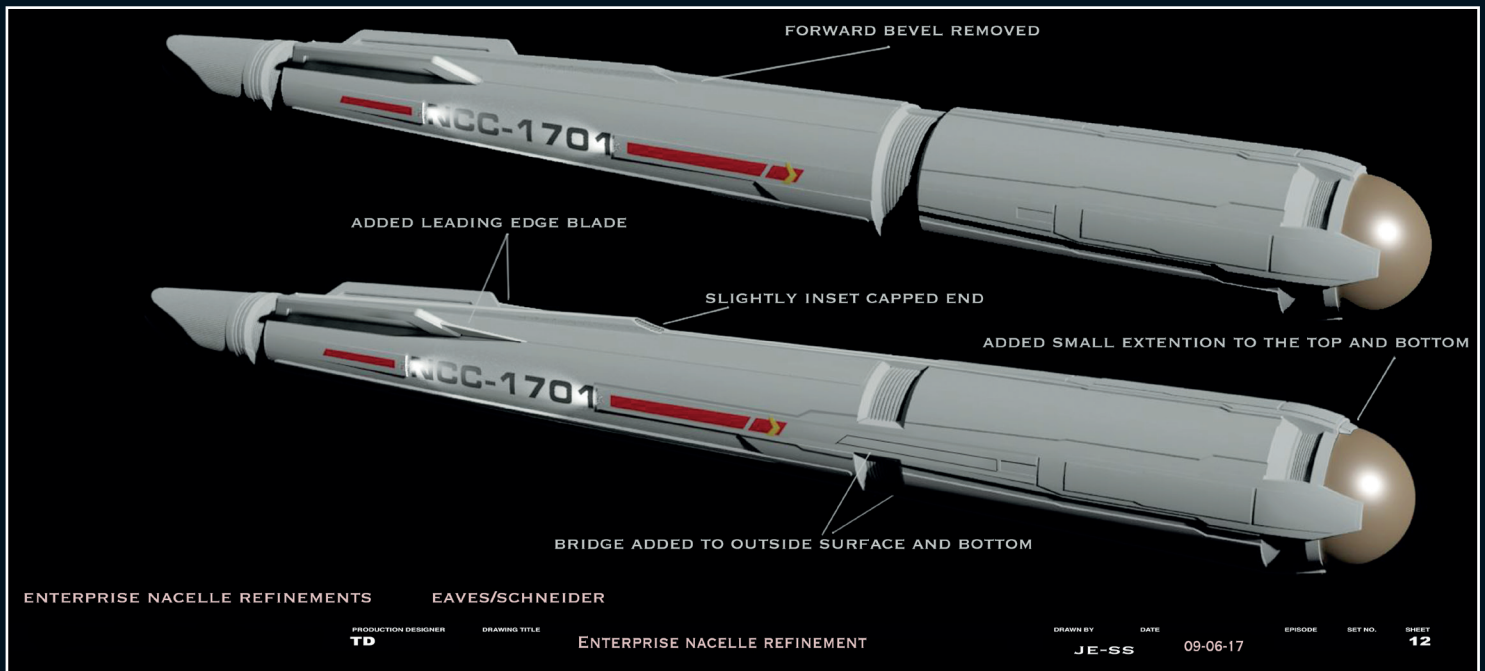
"That was a lot of fun," Eaves chips in. "Usually you don't have time to do something again after you're done. But we got to look at it and say, 'You know, it would be kind of cool...'" Scott knows more about the ship than anyone I've ever known. He'd say, 'You know you should do this, this and that,'

and I'd go, 'You know you're absolutely right. Why didn't I think of that?' The same thing would happen with William.

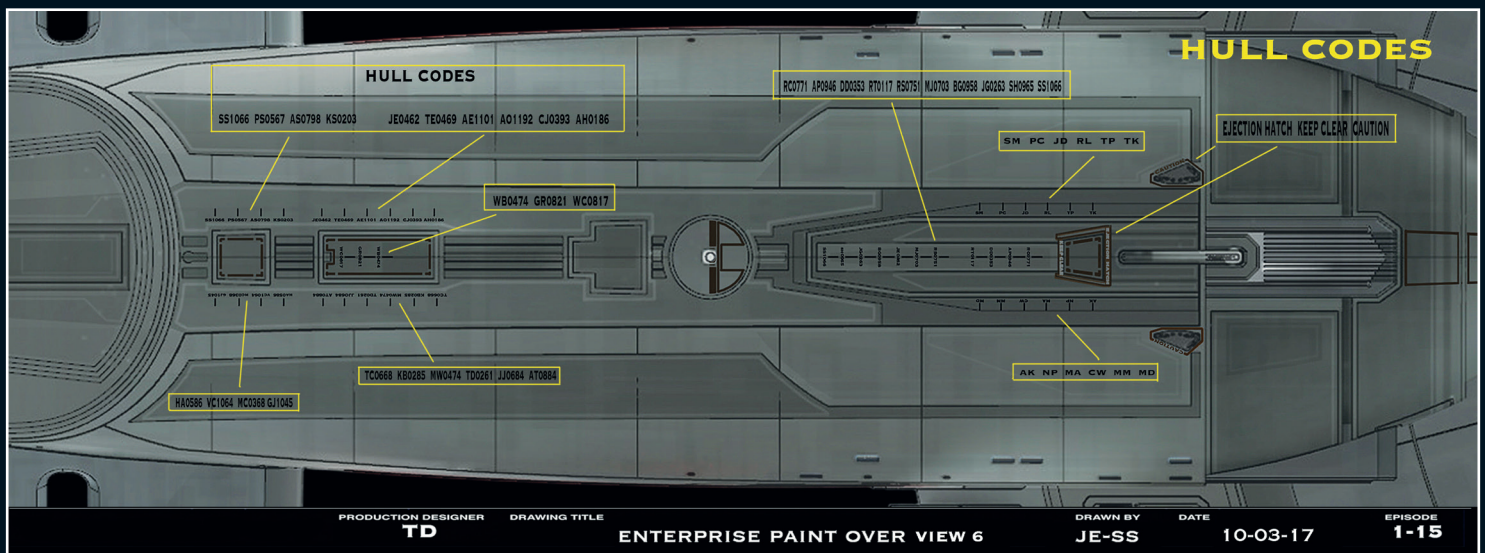
"It was a really cool thing to have a check and balance on each other - like, 'We should add this, no we shouldn't add that.' And we had Tamara there too. We did a lot of that up until the very end when they said 'OK it's got to go.'"

One of the areas that the three men put a lot of





▲ This drawing shows how the design of the warp nacelles evolved as the team refined every possible detail.



thought into was the look of the ship's surface. Matt Jefferies had always wanted the ship to be smooth, but on modern high-definition television screens, this left the ship looking too simple.

"John did a couple of passes where we had different types of traditional metal surfaces," Budge recalls. "We had a phase," Eaves elaborates, "where we were trying to do the blend from NX metal to the paint. We did fifty/fifty ratios and stuff. Those were awesome."

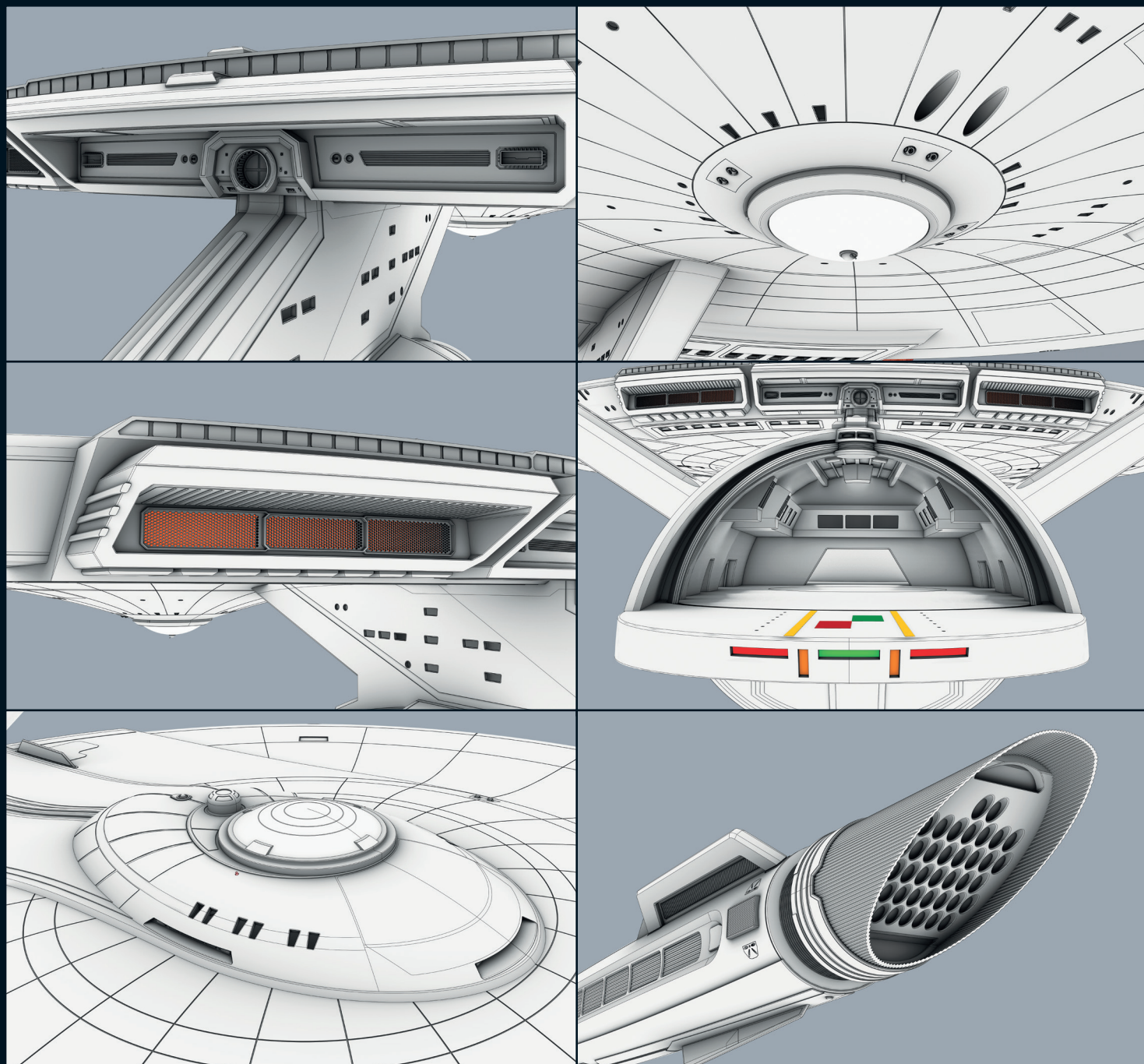
METALLIC TEXTURES

Schneider remembers that this was exactly the kind

of detail that Eaves would work up on top of his initial renders. "John took a render I did of the ship and he did some paint overs, trying out some aztecing. He also did one where we were doing a pass where there was bare metal versus painted, it had the grey stripes on the top which was very much 'The Cage' look.

"I think some of that artwork is what they used as a guide when they did the final visual effects file. If you look at what they did, they basically did one of John's early paint overs. They did it a little differently in terms of the surface texture. They didn't do aztecing, they put sort of a generic

▲ One of the ideas the team suggested was to add codes to the hull that were actually the initials and birth dates of significant figures in *STAR TREK*'s history.



▲ Schneider paid an enormous amount of attention to the details when he modelled the ship, from the exact look of the impulse engines to the interior of the shuttlebay.

plating all over it and gave it a sort of metallic finish to it. But the big grey stripes that were along the top of the saucer that was very similar to a concept John had done early on.”

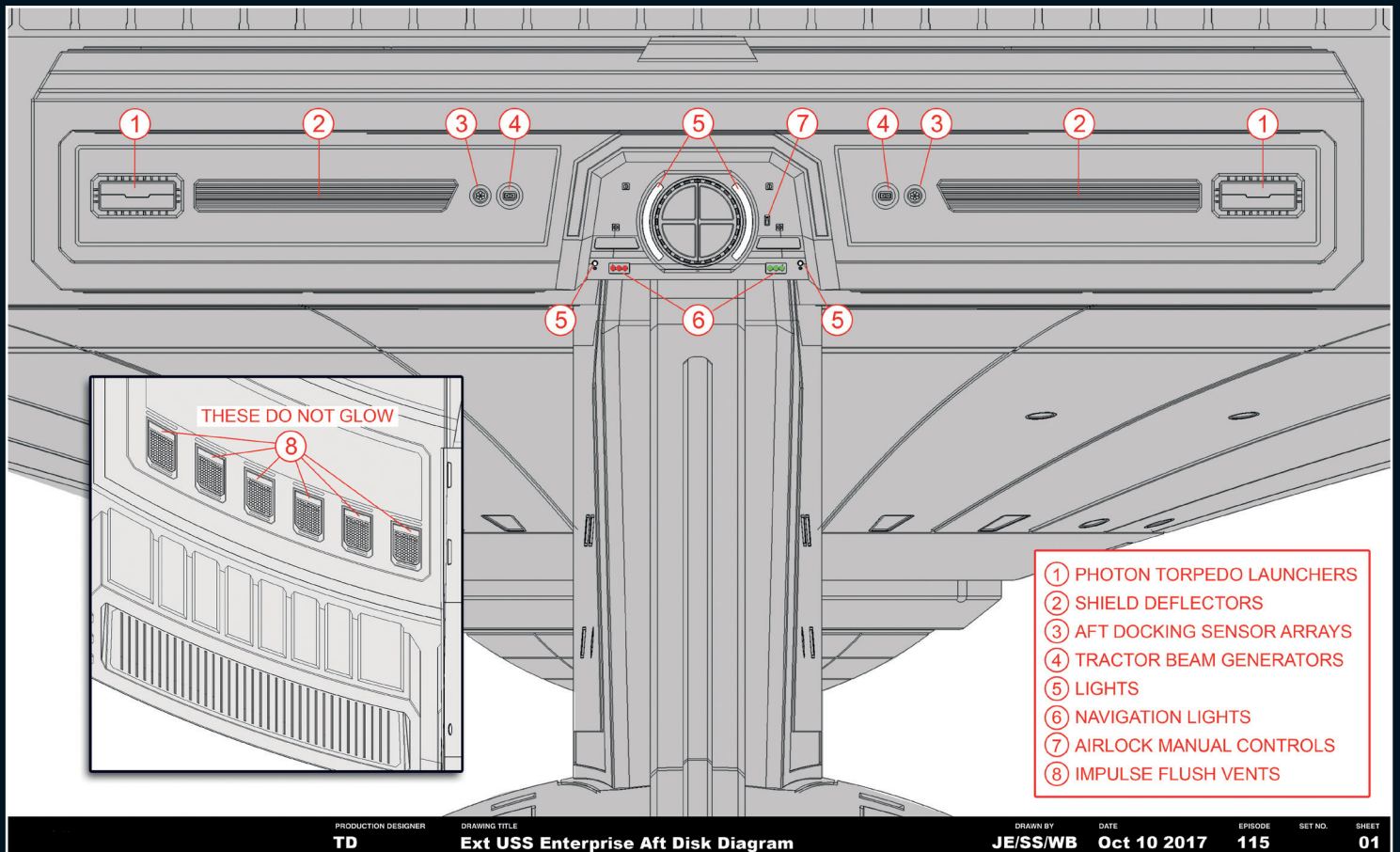
One of the most contentious issues was the size of the ship. “The scale would go up and down,” Eaves remembers. “Were we going to keep the scale of the original series or was it going to be increased to match the size of the *DISCOVERY* ships? Scott would have to readjust those window sizes constantly. At one point William did a whole scale sheet showing what it would look like at a

thousand feet up to fifteen hundred.

“It was decided we were going to go with the 1500-foot scale range so the windows had to be adjusted, but we still tried to keep that *TOS* pattern of what the windows looked like. It changed the shape and the scale and stuff. William would jump in there and help us and we had to do the mooring decks and stuff.”

A GLIMPSE INSIDE

One of the areas that the team thought particularly hard about was the bridge. As Schneider explains,



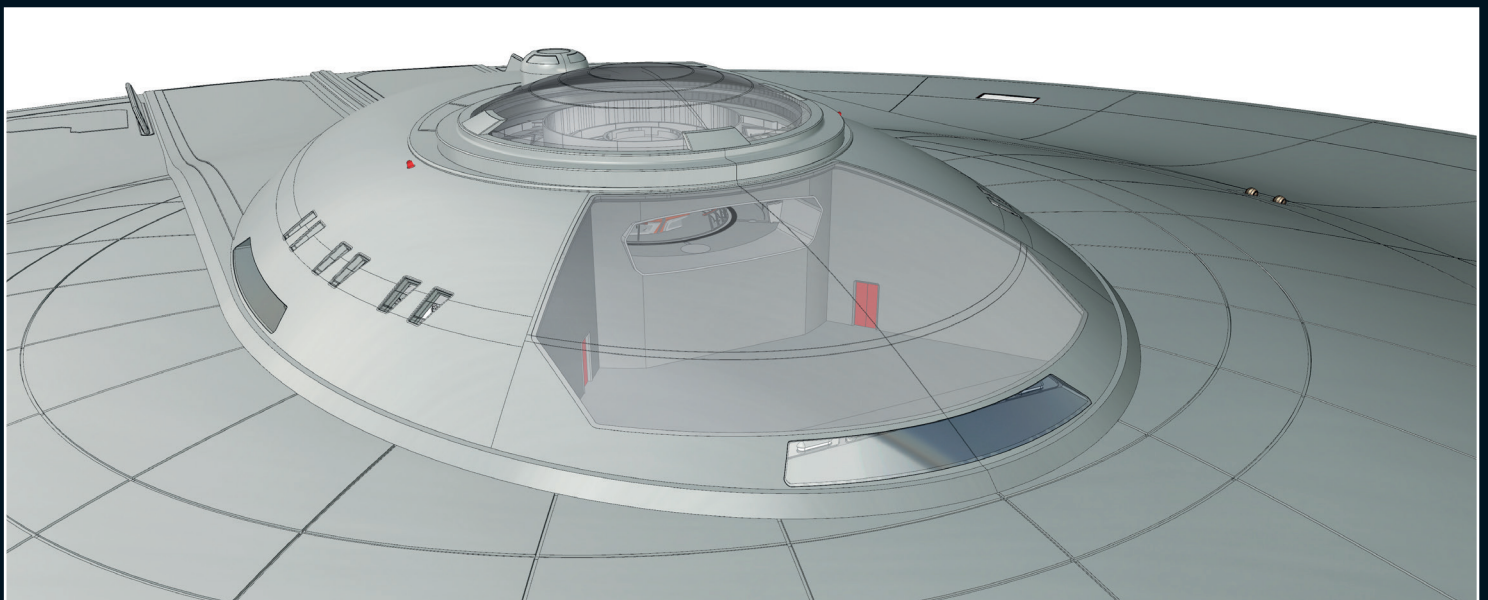
most of the *DISCOVERY*-era ships have a window at the front where the viewscreen is, but Jefferies' design has a distinctive curved area. "I told John early on that I really didn't want to mess with this shape up here, but they liked having windows at the front of the bridge, so I came up with the idea that this panel here is transparent aluminium.

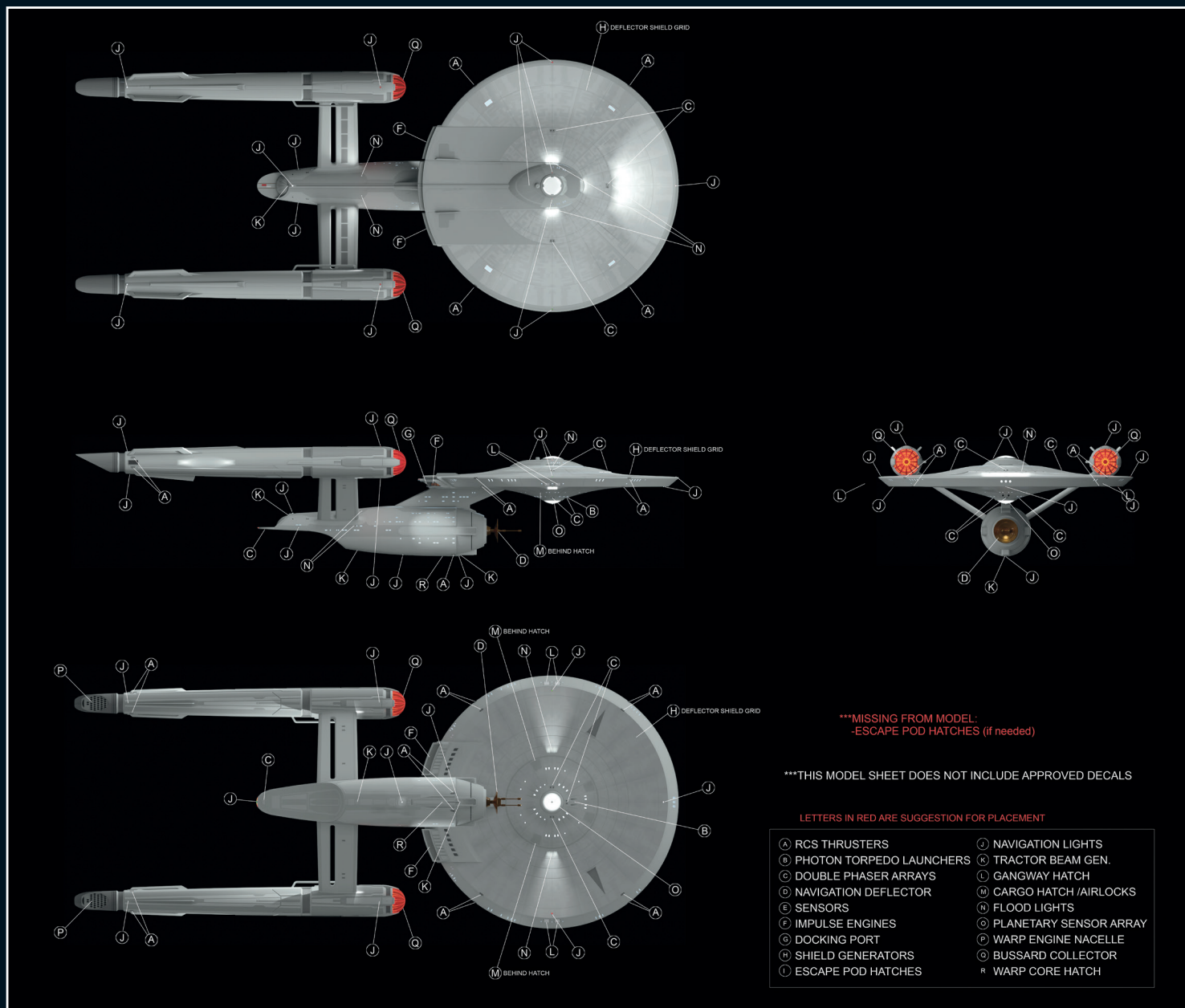
During battle mode it would go opaque and during exploration mode it would go transparent, and then you could see the window behind it."

Schneider even built a basic model of the bridge, which you could see through the transparent section. If you looked closely at it you would see that the team also addressed another

▲ Budge drew up detailed schematics showing exactly what all the components were.

▼ Schneider suggested giving the front part of the bridge the ability to turn transparent.





▲ Budge’s schematics reveal just how much thought went in to make sure the *Enterprise* had everything it needed to travel through space.

continuity problem with the design of the original *Enterprise*. On the top of the bridge you can clearly see the turbolift on the centreline, but on the set it is off to one side.

“A cool thing Scott did that you’ll never see,” Eaves says. “was to make the turbolift work. He came up with the idea that, you get in the turbolift and it rotates in to the tube and then drops. It was a brilliant way of making that work aesthetically on the interior and the exterior. It was really a cool thing.”

Schneider goes on to explain exactly how he saw it working. “You have an elevator shaft on the center line and two standby elevators off to the side. So one would slide back and over and go

down the tube and another one would come in. This is why you could get an elevator quickly because there’s always at least two standing by and that explained why there is a center shaft.”

Eventually, the team handed their model on to the visual effects team, who used it as the basis for their own, much higher-spedded model. “I sent them a mesh model,” Schneider says, “and they basically rebuilt it. They made some design changes. They took the lower hull and from the sensor array, they basically scaled it in one direction and shortened it. They lowered the lower hull and lengthened the neck. They shortened the engines and they swept the pylons back.”

“We’d made the struts on the nacelle thicker



◀ After the VFX team built their model they continued to refine the design and made several important changes to the ship's proportions.

one to match the *DISCOVERY* stuff," Eaves continues. "We thought you could remove the venting on the back, which would make it transition toward the *TOS Enterprise*. But we're a stepping stone. You pass things on. You're a stage in the process. There was another collaborative process that went on after us."

The art team only got to see the VFX version of the *Enterprise* a couple of weeks before it appeared on screen. All of them are overjoyed to have worked on the ship and with the reception it has received. "It's been a great process and we've enjoyed it," Schneider says. "The best time I've had in many years was basically from April of

last year to October of last year. Just because of being able to work with these two guys."

Eaves had designed two other *Enterprises* but for him this stands out as one of the highlights of his career. "This was really an honoring project," he says. "How often do you get to take a Jefferies design and work it? On a scale of it being a very rare and fantastic treat to do, I think we all thought this was probably a twelve. It was really a very fun thing to do. I couldn't have been more thrilled about how this thing turned out. Just watching what William and Scott were doing the whole time was fantastic and I thought the finished product was just immaculate."



◀ The *Enterprise* made its debut in the closing minutes of *DISCOVERY*'s first season, when Pike's ship hails the *U.S.S. Discovery* before dropping out of warp.

STAR TREK™

