PLANE1

POTENTIAL ROLES
Battle Medic
New Recruit Trainer
ATV Fast Recon
Transport Pilot
Tank Driver

T-SIZED

PLANETSIDE 2 wants to be a player-driven, PvP-only, free-to-play FPS. It may be the most audacious game ever made. Can the studio that created *EverQuest* pull it off? *by Evan Lahti*

A Liberator attack gunship flies with a Reaver fighter-escort on its wing.

Many vehicles, like the ATV, are shared between factions.

Developing an MMOFPS requires intense focus, unwavering commitment, and a stark willingness to court failure. To make one, your designers have to be alchemists, your artists have to be engineers, and your coders have to develop a universe that never sleeps (presumably without any sleep themselves). It's a merciless genre with few precedents to fall back on, one that other talented developers (like CCP, Hi-Rez, or Red 5 Studios) have stumbled over, or are still struggling to accomplish.

PlanetSide 2 in particular presents a balancing problem on par with *StarCraft II*: three factions waging, potentially, 666 vs. 666 vs. 666 combat per server with dozens of player-customized weapons and vehicles on continents as large as 64 sq km. From a technical standpoint, it'll need netcode nimbler than *Tribes 2*'s—programming that flexes under the strain of hundreds of those players rushing to reinforce a single, vital base. And when you touch it, it still has to walk and talk like a first-person shooter—agile, rooted in player skill, crackling with emergent gameplay, headshots, squad systems, PhysX-enabled vehicles (check, by the way), stealth mechanics, and everything else we've come to expect from a sophisticated FPS.

That's the challenge Sony Online Entertainment has taken on. It's without a doubt the most ambitious FPS I've ever seen. And with all that, the only thing I want to do in it right now is be a guy that drives an unarmed, burly transport truck. I want to be a tactical chauffeur.

I want to be counted on to get 10 men where they need to go intact, yell something encouraging over VOIP when they dismount, and nothing else. I want to know nuances of the southern zones of *PS2*'s canyony continent, Indar, and be able to tell you why a valley insertion from the northeast is safest (the Terran air patrols tend to shift to the south at night). That's me.

I want to be a goddamned good combat bus driver, and, by some miracle, *PlanetSide 2* might actually support my obscure fantasy, along with dozens of other player-authored roles. Maybe you'd rather be a front-line medic, or an anti-air specialist. These are the kind of personal experiences an MMOFPS absolutely must deliver, and I'm spending the day at Sony Online's San Diego offices to observe firsthand how *PlanetSide 2* intends to render them.

Light warfare

Matt Higby is controlling the sun. He's *PS2*'s creative director, and he's used a console command to multiply *Planet-Side*'s day-night transition rate 120 times. The star is crawling against the cosmos at the speed of *Super Mario*'s malicious sun.

As he gives me a glimpse of a reality-in-progress, Higby sounds like a proud god. "We have this realtime dynamic shadow system, it works with our realtime dynamic cloud system, so the sun will actually create shadows on the ground and in the battlefield based on the clouds that are up ahead, which are dynamically generated."

PlanetSide 2 is primordial—at the moment, clearly still in its alpha

"We're an FPS game first."

PlanetSide 2 Creative Director Matt Higby

phase—but Higby won't shut up about all this raytracing, normal-mapped clouds, and admittedly beautiful sky activity happening in his world-embryo. "We're going to be layering in things like weather, and a satellite system that lets us have stars and space stations—basically proxy space battles happening up above. And again, that all goes back to trying to build a world, not just a map."

That last bit sounds a little like a tagline, so I push him. I ask if attacking with the sun at your back will be a viable tactic—using glare to blind your enemy. It will be. "It's neat to be able to say, 'Well, let's wait 30 minutes for the

sun be in this position, and then we won't have to deal with that, we'll be able to pick off guys up there a lot easier,'" Higby says. "Those sorts of tactical decisions are what great generals and war leaders have used for hundreds of years, and allowing players to use that kind of stuff adds an extra layer of depth."

Deciding that *PlanetSide 2* is a shooter first and foremost is what allows Higby, and the rest of Sony Online, to put absurd, wonderful stuff like tactical sunlight into their game. Making something that tries to wedge itself between MMO and FPS is a misstep that's been made by other developers. It creates compromises that upsets fans of both genres, and SOE gets that. "We're an FPS game first, and the most important thing is 'fps' in an FPS game. Frames per second. Otherwise it's not an FPS," says Higby.

Getting certified

Higby puts me behind an ATV. It's heartening the way the wheels forget their traction a bit when I turn hard at high speed. And that I can freelook while driving. And that the UI shows what gear I'm in. And that I can strap C4 to the headlights and make my bike into a bomb. And further, that I'll be able to decide in that vehicle's certification tree—*PS2*'s skill system—if I'd rather have a high horsepower, low torque spec or level-up a high torque, low horsepower variant for hill-climbing.

When *PS2* was announced, veterans of the

original were skeptical about whether or not the addition of explicit classes—something that the original game forewent in favor of fully-customizable equipment loadouts—would undermine the specialized roles that *PS* is known for. *Tribes: Ascend*, another rebooted sci-fi shooter, has received similar criticism for adopting a class system.

When I mention this, Higby indicates that he thinks classes will encourage more diversity across the playerbase, not less. "You could have a heal tool, a repair tool, 10 grenades and a machinegun," Higby says of the original game. "That could be your loadout and you'd just go to town with that. We've definitely moved away from that. As soon as you start putting in crazy capabilities in an open system, people are going to find two of them that are really broken when they work together and exploit it. By sectioning those off, it allows us to have each one of these classes have really special gameplay."

Classes won't be one-dimensional archetypes, Higby says. They'll each have one or more certification trees that can be leveled, using points that are (like *EVE Online*) earned automatically, whether you're online or off. Active players will earn certification points atop that allowance. None of *PS2*'s abilities are set in stone, but an Engineer could, say, train up his repair speed; a Medic might unlock "Symbiotic Healing," a perk that heals you when you revive allies. A MAX suit

SOE has confirmed joystick functionality for vehicles.

You can attach a mine guard to most land vehicles, which absorbs the impact of one or more of the exploding traps.
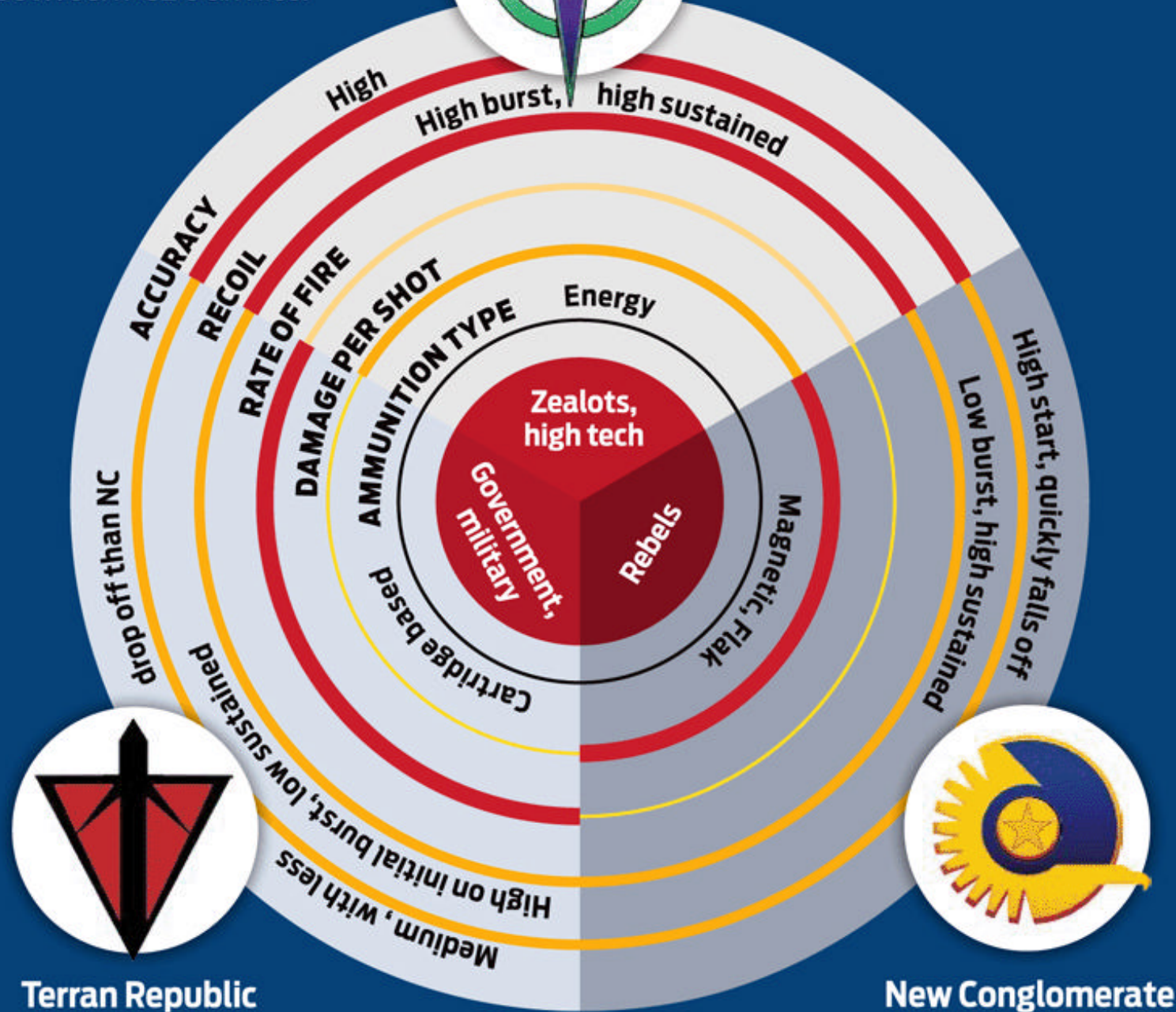

A Terran Light Assault. Classes aren't permanent choices, and can be changed at any inventory station.

THREE-WAY

SOE's *StarCraft*-like approach to faction diversity goes way beyond color schemes. Here's a broad comparison of the differences in weapon behavior between *PS2*'s armies.

Vanu Sovereignty

High

High burst, high sustained

Accuracy

Recoil

Rate of Fire

Damage per Shot

Ammunition Type

Energy

Zealots, high tech

Government, military

Rebels

Magnetic, flak

Cartridge based

drop off than NC

High on initial burst, low sustained

Medium, with less

High start, quickly falls off

Low burst, high sustained

Terran Republic

New Conglomerate

Low
Medium
High

(a designated class for using *PS2*'s hulking mini-mechs) could learn the ability to equip the same weapon type on both arms.

Readability and easier threat recognition are other benefits that classes contribute, Higby says. "In *PlanetSide*, you would see some dude and you would have no idea what they were going to be able to do to you. Having that predictability of, 'I see that guy, he's an Engineer, I know he can do these few things to me.' That's critical. All those pre-dictability elements add a lot to people being able to learn how to play the game."

War crafting

SOE only put a few weapons in my hands during my visit to the studio, but *PS2*'s weapon handling fell somewhere between *Borderlands* and *Tribes*—intuitive, but not so slight that I didn't have to think. I could rack up an easy kill at medium range by stamping Mouse 1 with my New Conglomerate Gauss Rifle, but after about two seconds my ironsights would hiccup 45 degrees and I'd be completely off-target. "We do have realistic ballistics in the game. Bullets do drop over time, they do lose damage over time. We don't have some of the stuff like,

Unlockables for this Vanguard tank include a flak cannon and countermeasures.

I yelp for help from my unarmored teammates; I feel like a bully being bullied.

say, penetration. A lot of it's just, how much simulation can you really be doing when you're talking about potentially millions of bullets flying around at once?"

As a Light Assault I could activate a jump-pack to bounce over an outer wall, or spring over the head of a foe in a face-to-face shootout, daring them to try and finish me off in the air while one of my teammates dealt the killing blow. When I spawn as a MAX suit, I blast away at scattered infantry with separate weapons assigned to each mouse button. The stopping power of my chaingun arm and grenade arm is offset by a pitiful turning rate—any circle-strafing player can out-maneuver me, and they do. I yelp for help from my unarmored teammates; I feel like a bully being bullied.

"In *PlanetSide* there were three specific MAX specs per empire [anti-vehicle, anti-air, and anti-infantry]. We've made one MAX per empire with multiple weapon systems that players can configure to allow for multi-use MAXes as well as dedicated AV, AA, and AI. MAXes will continue to be fearsome units that require support, coordination and teamwork to really reach their full potential," says Higby.

Even from this hour spent in a six-person,

contextless skirmish—well below what *PlanetSide*'s average battle will be—there's plenty of complexity. Higby earns an eyebrow-raise out of me when he starts talking about different missile lock mechanics they'll be adding, "from heat-seeking to camera-guided to laser-guided, and all those will be different upgrades that you can use."

What I don't have a sense of is whether that experience will hold up at a scale of hundreds of players, each with different intentions and expertise, all vying to be heroes. Creating spaces that sustain small skirmishes as well as all-out assaults is one of *PlanetSide*'s daunting design puzzles. One prong of SOE's approach to this is specialized geography: terrain that's suited to different combat. Sure, you can fly your 12-player Galaxy transport anywhere, but you may want to avoid regions where air fighters clump together like a rocket-toting gnat cloud.

Indoor areas are also embracing some "level design basics" that Higby says have emerged in the last decade. "*PlanetSide* was very heavy on facility fights. It had these circuitous corridors with different rooms. We definitely do have those large facility fights. However, our facilities are largely above ground; there aren't
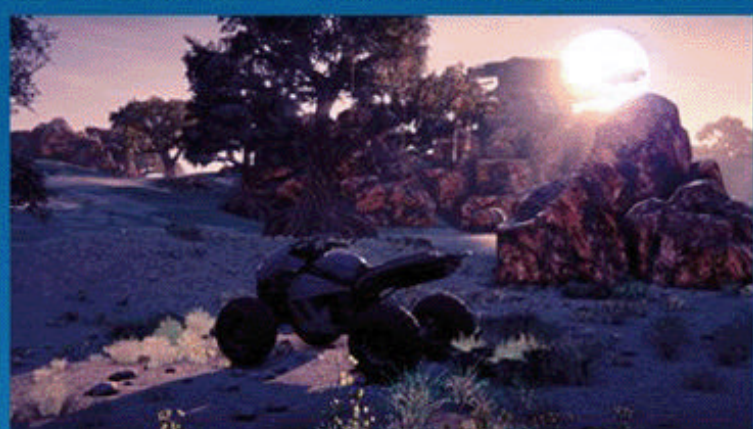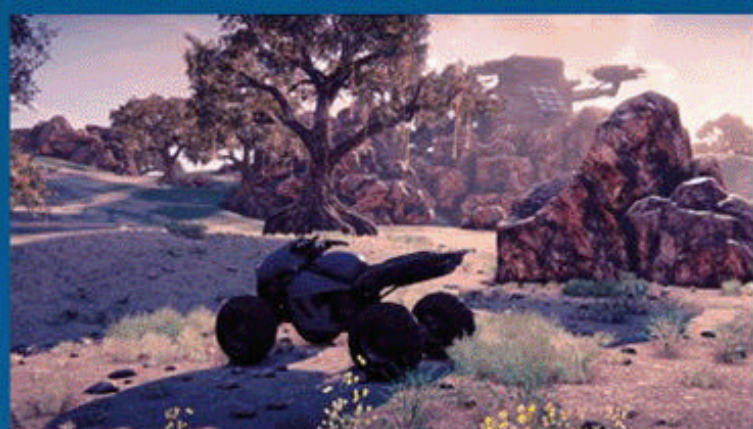
as many corridor and room battles. By making these above ground and having a few more navigation aids...like that map we played today, it was really easy to just look up and see, oh, here's the gigantic base with the big pulsing light sticking out of the top of it. I know if I go that way, bad guys are gonna be there."

Higby tours me around another side of Indar in a Mosquito, a Terran fighter. He emphasizes that each continent is handcrafted, that Indar is mostly red canyons, mesas and mining stations, "but it also has this highland steppe area which I've always said should look like Pride Rock from *The Lion King*," he says. Amerish is Irish highlands interrupted by giant, violet geode eggs and wild savannah. And glacial Esamir is arctic urban ruins and dead freeways cracked by the cold. "We didn't want to just spit out a bunch of height maps and throw clutter on them and say, 'Alright, go play.' If you just look at this tiny canyon area, the amount of work that needs to go into this and then all the play-testing that needs to go into making sure that this is fun is huge. But we're serious about it."

This is a quality-and-quantity approach to world-building. And for a developer, it's a goal that's incompatible with sleep. It will take thousands of manhours of testing simply to make playable. But if SOE pulls it off, *PlanetSide 2* could be an antidote to the map fatigue that crops up in many modern FPSes. Imagine a terraforming base, or a giant crater, that's

AURAXIS NEVER SLEEPS

Flashlights and nightvision will let players battle beyond dawn.

On Indar, bases felt *Borderlands*-esque: bridges, ramps, and tight interiors embedded in rock.

The Sunderer is basically an armored ice cream truck. It can push tanks and fits 12.

your Outfit and you want them to be all about air superiority fighters. And when your Reavers come rolling over the hill, with the paint-job that only your outfit has, people will be like, holy s***, those are the badass Reaver pilots. That becomes an aspirational thing. Anybody who's a Reaver pilot on your server says, 'You know what, one day I want to join that Outfit, because that's where the serious Reaver pilots go to play.' That kind of thing is super compelling."

Design dilemmas

The world wasn't ready for *PlanetSide* in 2003. Broadband was even less ubiquitous; having hardware render a multirole combat world where 1,000 players could be firing 10,000 bullets at any given moment meant a lot of compromises in weapon dynamics and level design.

Technology has only recently matured to render *PlanetSide*'s original vision, but there are plenty of new moles to whack as SOE's ambition swells. VOIP alone presents a brain-breaking conundrum—*PS2* needs a voice solution that all at once accommodates squad-level conversations, vehicle-specific channels (when you want to talk only to the guys in your airdrop Galaxy), and command comms. And this sys-

ing, and the thoughtful tactics they'll inspire—think about an empire employing a misdirection raid to divert enemy forces from the adjacent outpost that's its real target. *PlanetSide 2* could be the only shooter where stuff like patrolling or battle-planning become practical skills, not simply role-playing.

Whether or not this stuff becomes a reality relies on SOE being smart about restrictions, and building systems that support these bright and inevitable player ideas. One of SOE's solutions is the Outfit, player-created clans that comprise *PS2*'s three Empires. "I want [Outfits] to feel like the US military," says Higby. "You see someone from the 101st Airborne and you think, 'That guy is probably a badass paratrooper.' I know that they're the best when it comes to jumping out of planes. We want the Outfit customization system to feel the same way. Maybe you start
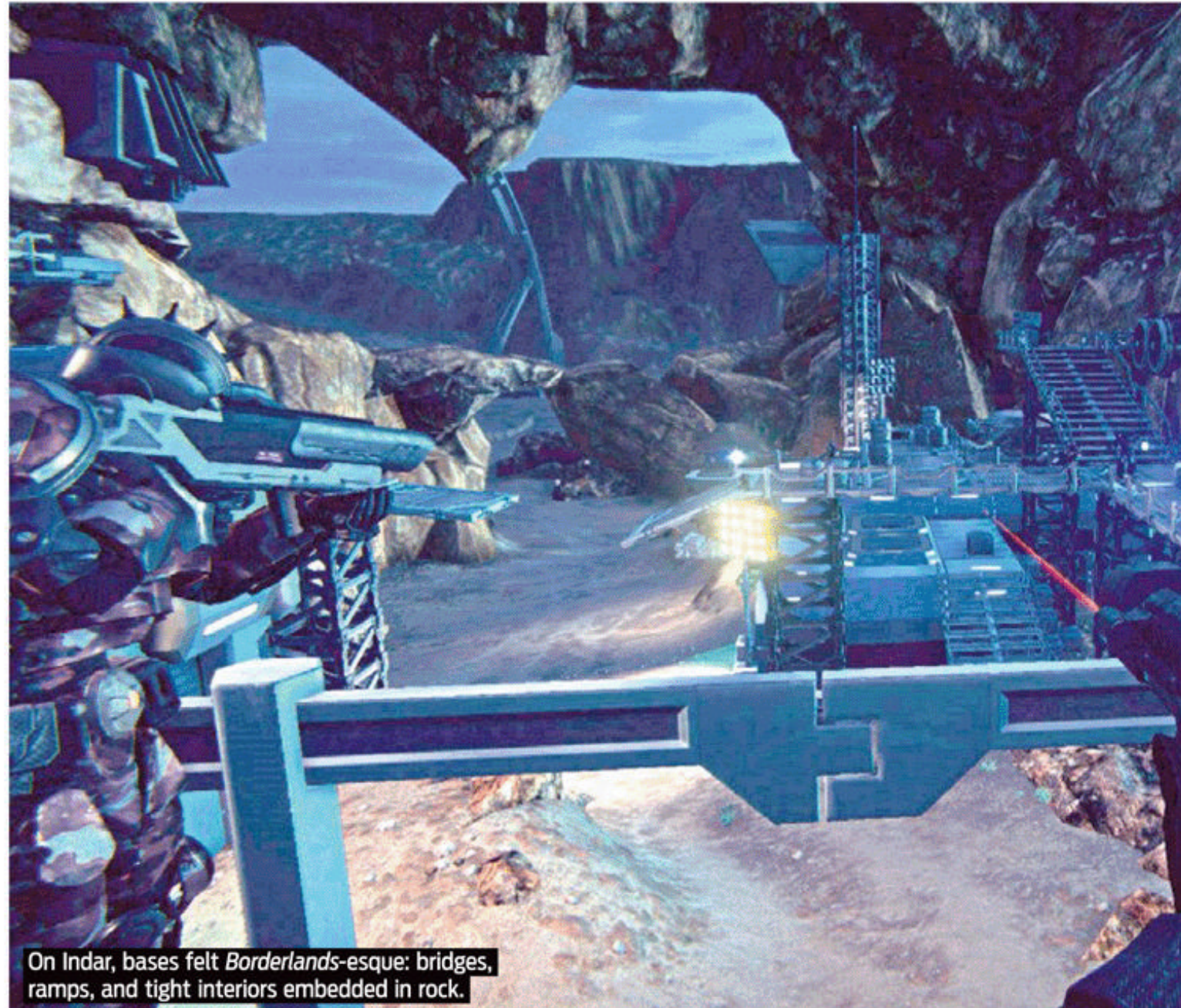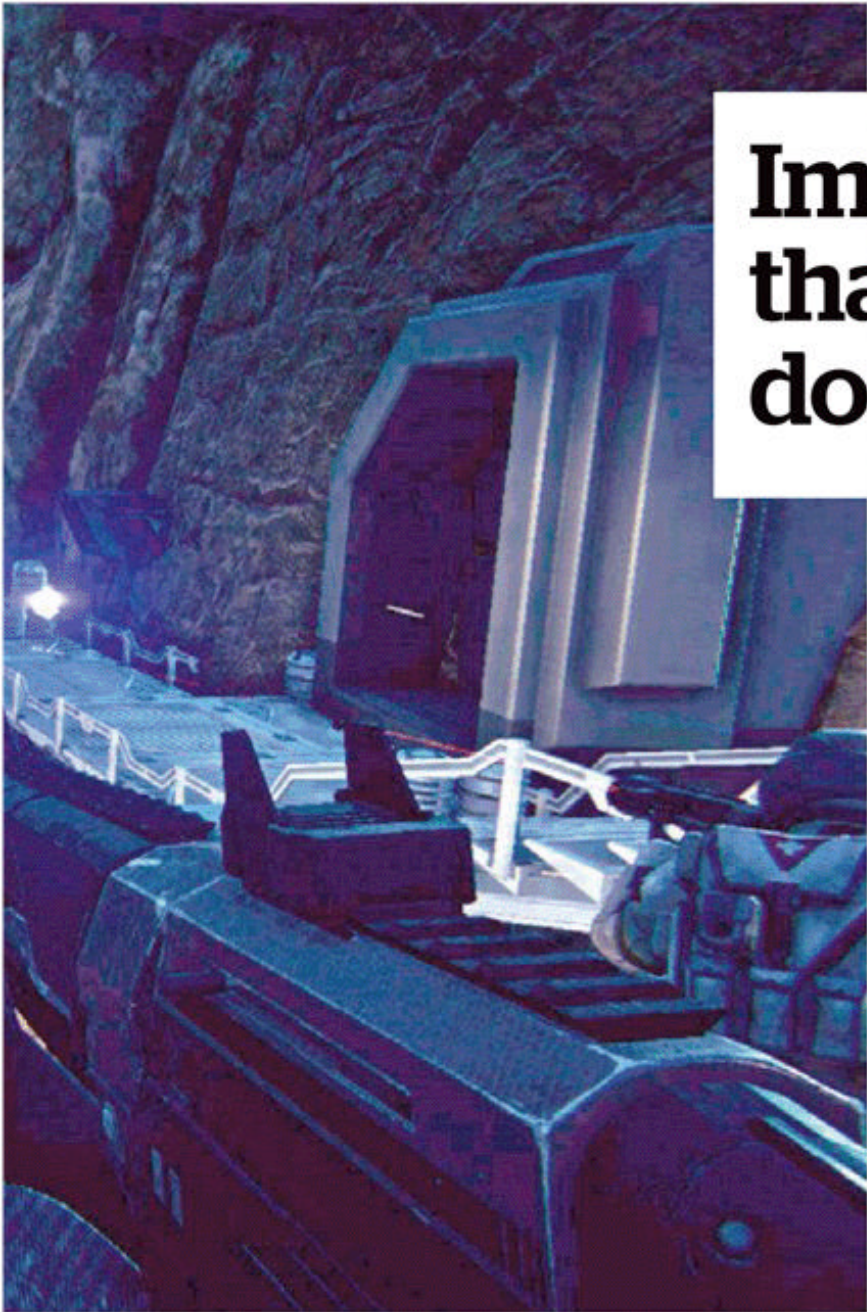
conquered, then disputed, besieged, reinforced, then finally won back after a three-day weekend of counter-attacking—a skirmish later nicknamed "Labor D-Day." That player-authored history of territory control doesn't happen anywhere else in the genre. It won't be quite as free of limitations as *EVE Online*—every empire will always have a foothold base on each continent that's uncapturable—but it's the closest thing to real persistence I've seen in an FPS.

It's also imagination kerosene.

I'm wild about the prospect of emergent roles like regional specialists cropping up in *Planet-Side 2*—imagine a Canadian infantry unit that's trained and customized to do war only at night, earning a server-wide reputation for picking off outposts behind enemy lines. I love the idea of individual kills and wins having lasting mean-

Imagine a Canadian infantry unit that's trained and customized to do war only at night.

tem needs to be flexible enough that hardcore clans will use it instead of a dedicated Team-Speak server, which would separate novices from the battle chatter of hardcore players.

SOE is unwilling to hint at a release or beta date, but I'd confidently say *PS2* is a 2013 game on the basis that there's still so much to be done. Primary content and major systems are still in-progress; December 2011 was the first time SOE put on a live gameplay demo internally. The purchasing and cooldown mechanics for vehicle buying are up in the air; stuff like vehicle hacking (hijacking) is being experimented with and may not be implemented.

Even the decision to allow one player class to wield a new weapon takes a lot of tempered thought and testing, as Higby highlights: "In terms of moment-to-moment gameplay, we've changed some stuff pretty significantly. Back in *PlanetSide*, cloakers were more of a melee class, they were more about subversion, sneaking behind enemy lines and hacking things. We've added sniping to the Infiltrator class. When you're loaded out with a sniper rifle you have a lesser cloaking device. You're visible as an outline, you're never perfectly cloaked, even if you're holding completely still. And when you fire, it's like the Klingon cloaking devices,—you can't fire while cloaked. In *PlanetSide*, you were actually able to change your contrast on your monitor to a degree where if they were moving at all, you'd be able to see them, and there was really no benefit to using the stealth suit in that case. We're going to make stealthing work like real invisibility should in the game, where you're not even getting packets from someone you shouldn't be seeing."

Head in the clouds

I end the day in a corner office with Ryan Elam, Technical Director, and Tramell Isaac, *PS2*'s Senior Art Director (who created *Fallout*'s iconic Vault Boy). They're waxing nostalgic about a raid gone wrong.

"You don't have a lot of 'remember whens' in *Battlefield* or in other modern first-person shooters," Elam starts. "But in *PlanetSide* everyone has that moment of 'Remember when we were trying to drop into the base with 20 guys out of a Galaxy and we all got massacred by one dude?' There's all these epic events that happen, and you get to share that with your friends... same with your first dragon raid in a typical MMO. That's the kind of stuff that we can't make happen. We give you the tools and we let you make that moment yourself."

Issac leans forward from his desk: "We all drop-podded into an orbital strike, that was the best one." Everyone in the room laughs. "Oh, hey, let's go! *AAAAUGH!*'"

"I love making games that people get attached to." Elam smiles.

SOE knows what they want to preserve from the first *PlanetSide*: persistent, modern FPS gameplay that facilitates scrapbook-worthy moments. The studio's opportunities for failure seem infinite—they're building a PvP-only, hundreds-on-hundreds-on-hundreds triple-A shooter with three distinct factions, and they want players to have almost all the say in creating the fun. And they're making it free-to-play. That's not a game, that's a Manhattan Project.

But if you play *Arma*, *EVE*, or *Stalker*, you know that some of the best experiences on PC come from studios that plot a course for another dimension, come up short, but still end up producing something that latches onto one of our deep-set needs as PC gamers: writing our own stories. At the very least, I expect *PlanetSide 2* to join that company. ■

TRICKED-OUT TANK

PS2's art team wants to create unprecedented customization for vehicles and soldiers. Modular armor and weapons, decals, and paint will all be on the menu. Here's one possible progression arc for a single vehicle.

THE MAGRIDER A medium hover (and therefore amphibious) tank developed and used exclusively by the Vanu Sovereignty, *PlanetSide 2*'s purplest faction.

1

This is the Magrider base chassis. The factory model is fitted with a powerful, Vanu-specific anti-infantry weapon, the Pulsed Particle Accelerator.

2

Forward armor plating that reduces damage taken from the front quadrant has been installed. Up top, the gunner seat has swapped to a dedicated anti-armor weapon, the Heavy Rail Beam.

3

Side armor plating protects against lateral attacks. Rear stabilizers (the tan fins) have been attached for improved maneuverability.

4

A forest camouflage pattern has been applied; perhaps this Magrider is preparing to fight on *PlanetSide 2*'s green continent, Amerish.