Review: ASUS Eee Pad Transformer Prime TF201

I sit at a desk and do office stuff in a Windows network environment for seven hours a day. After years of the same with the government, my wife has become an across-the-board Apple devotee. One day, just for fun, I went looking for something a little . . . different.

What I'd like to do here is to give a brief profile of Android, and an even briefer one of ASUS, then a tour of the device. I'll try to strike a balance between tech overload and consumer mush. Let me start you off with a test drive.

Jet-skis bob in a canal of a post-modern Venice (this is not to be taken as an approval of personal water craft). Lights go from red to green, a race is on. Let us spray. There are wakes and waves and sun and shadows and helmet-screen rivulets and roaring noises. This is Riptide GP on an oversize cell phone, all steered by your hands on an Android tablet.

1. So, what's with tablets, anyway?

How did tablets come skyrocketing up out of nowhere? Actually, it was more like water skiing, being pulled steadily into an upright position. First came phones, then expensive radio-driven car phones, then brick-size mobile phones, then fat cell phones, then skinny cell phones, then smart phones, which were pretty much an always-on, hand-held computer that happens to make phone calls.

Each advance brought a level of expectation and presumption, based on those slow-booting PCs that got us all here. Being towed along behind the smartphone boat was an expectation of a phone-like experience in a simplified small notebook computer. We called it a "netbook" for a while, but then a highly stylized, even mildly cultish computer company provided the marketing force to slam two already known concepts—touch screen and always-on—together to create a theretofore unknown critical mass.

Intel built a "Web Tablet" in 1999! Nokia had a Linux-based tablet in 2005 but decided to squeeze the concept down to smartphone size! Archos (who?) had an Android 1.4 tablet by mid-2009! Nobody applauded.

But in April of 2010, Apple invented the chrome-plated wire wheel (it was white, actually) and made it stick. It turned on instantly, got you the weather before coffee was ready, had your iPod music player built in, threw in the accelerometer, gyroscope, and GPS that were already on your smartphone, was a better size for games, was largely self-teaching, and most of all, it extended the iPod/iTunes sales model that had already put fifty thousand record stores out of business: it offered thousands of small, free-to-cheap, single-concept pieces of software to be downloaded at will. We came to call them "apps." An app didn't *have* to be much, it could be just tossing crumpled balls of paper at an office wastebasket in a slight crosswind. Or a barcode scanner. Or angry birds getting even with pigs. And the touch screen was a manufacturer's dream; once the firmware was developed and connected to the touch screen, you save an amazingly large number of 35-cent sweatshop-person hours by not installing hardware buttons, enough to add up to some real speedboat money.

1. Android

Let's compare an Android 4G smartphone with this ASUS Android tablet. Both of these devices run the Android operating system. Both are paid for. The phone is a far more polished device, but it costs an additional *$350 to $800 a year, after* it's paid for, in data- and phone-plan charges. This particular tablet runs wi-fi only, and requires no data plan. Only sometimes, you're driving on the beltway, and you remember that this thing has several internet based apps that could help you get what you want or get where you want to go, but you'd have to pull off the road and find a wi-fi source to make use of any of them. Within the tablet market, access to a telephonic data plan is easily the single largest buying decision.

Android is a strangely hybrid OS: we think of it as a fledgling tool because it first ran on a commercial device in the fall of 2008. There is genuine contention over whether it's a real OS at all, or just an intentionally maimed distribution of Linux. In any case, Android is a much closer cousin to Apple than to Windows.

Android was an “independent” startup in 2003, ostensibly seeking an OS for digital cameras, backed by Google and taken over by them outright two years later in 2005. Two more years, and Google was able to announce—in fall 2007, four months after the release of the first iPhone—its participation in the "Open Handset Alliance" a monster consortium (think Samsung, HTC, Qualcomm, Sprint, T-Mobile, amounting very nearly to "everybody except Apple) for mobile-device open standards, and—amazingly, the very same day—to announce that Android was ready for commercial use. Almost exactly one year later (fall 2008), the first Android smartphone (the HTC Dream) went on sale. Almost exactly one year after that (fall 2009), Verizon Wireless released The Motorola Droid as an explicit competitor to the iPhone, with public support from Google. Although Motorola had great hopes in licensing the name from Lucasfilm Ltd., the product line is still going, but has never developed the monolithic status they were seeking.

Precisely because of Android's open standards, 2010 and 2011 brought the release of a gaggle of Android tablets to compete with the iPad. Some rollouts, like the Samsung Galaxy, were well-planned and have taken a long view. Others tended toward what industry insiders have referred to as "Frankenphone Syndrome," a chaotic re-purposing of smartphone apps that translated badly into the size, usage patterns, and wi-fi sourcing of tablets, and which, early on, slowed the growth of the Android tablet market. That chaos is only now beginning to recede.

Because it’s open-source under The Apache license, and the code has to be released, Android could still veer back and rejoin mainstream Linux (in return for benefits like not having its free office suite be so horrible) in the use of a common kernel. The revered Linus Torvalds has predicted that just that will happen, guessing at 2016 or so.

But consider this as an incentive for further differentiation: there are about one billion smartphones in the world right now, and Android is running on three quarters of them. While US market share was around 52% in 2012, share in China was more like 90%. Android has1.5 million new activations *per day*. It has 750,000 available apps, with something like 27 billion app downloads, so far, from Google’s app store. Also, Android runs on other devices, like smart TVs, digital cameras, watches, headphones, self-dimming auto mirrors, etc., etc., adding several hundred million more to the total device count.

For a sense of scale, let's review the sub-geologic seven-year history of Android version evolution (from Wikipedia.org). Most of you are likely familiar with their naming of major version upgrades after sugary desserts. If you're not, that's just how they (jelly) roll.

1. Pre-commercial release versions (2007–2008)
    1.1 **alpha**
    1.2 **beta**
2. Version history by API level
    2.1 **1.0** (API level 1)
    2.2 **1.1** (API level 2)
    2.3 **1.5 Cupcake** (API level 3)
    2.4 **1.6 Donut** (API level 4)
    2.5 **2.0 Eclair** (API level 5)
    2.6 **2.0.1 Eclair** (API level 6)
    2.7 **2.1 Eclair** (API level 7)
    2.8 **2.2–2.2.3 Froyo** (API level 8)
    2.9 **2.3–2.3.2 Gingerbread** (API level 9)
    2.10 **2.3.3–2.3.7 Gingerbread** (API level 10)
    2.11 **3.0 Honeycomb** (API level 11)
    2.12 **3.1 Honeycomb** (API level 12)
    2.13 **3.2 Honeycomb** (API level 13)
    2.14 **4.0–4.0.2 Ice Cream Sandwich (ICS)** (API level 14)
    2.15 **4.0.3–4.0.4 Ice Cream Sandwich** (API level 15)
    2.16 **4.1 Jelly Bean** (API level 16)
    2.17 **4.2 Jelly Bean** (API level 17)

(I'm betting on Key Lime Pie—aka KLP—for the next one, but nobody's talking.)

A point of caution: as a mobile app, Android was meant to stay awake almost all of the time, consuming as little power as possible. It does that by keeping what amounts to a passive path statement to your current position in every app you have open. If you jump back to your home screen by using the "home" icon, you leave that app open and the path intact. Compared to Windows, what you'd think of as closing an app is more like minimizing it. If you have enough apps open, you *are* in fact consuming resources, as well as leaving a minor chink in your privacy. (Apple iOS is very similar; if you use it, try checking your active apps list sometime.) In other words, this system has no problem with leaving you open to the Google business foundation of "track and bubble."

2. ASUS

ASUSTek Computer, Inc. was founded in 1989 in Taipei, Taiwan, as a spinoff by a group of engineers from Acer. (That doesn't sound like long ago, but note that that effectively predates the common use of Microsoft Windows.) The name arose from an initial desire to use Pegasus, the winged horse, as a marketing symbol for western consumers, but then truncated to the last four letters so they landed competitively close to Acer in alphabetic listings. (They still have a subsidiary named Pegatron.)

They made mostly mainboards and components through the 1990s, but moved toward integrated products as the century turned, expanding into desktops, laptops, netbooks, mobile phones, networking equipment, monitors, graphics cards, optical storage, multimedia products, servers, and workstations. As of the end of 2012, they were the world's fifth largest PC supplier, trailing only HP, Lenovo, Dell, and yes, Acer. They do many private-label lines, including the Nexus 7 tablet branded for Google.

We're focusing specifically on one particular concept group, the "Eee Pad Transformer" series, whose main focus is presenting a tablet which will deliver what everyone expects from tablets (cameras, media player, other phone-like features) but alternatively offers an integrated smart keyboard and wired or Bluetooth mouse capability, bridging the gap between tablets and netbooks. In another burst of English language naming tricks, the name is not only a jab at the iPad, but allegedly the name Eee-(anything) derives from "the three Es," an ASUS abbreviation of its advertising slogan for the product line: "Easy to learn, Easy to work, Easy to play".

ASUS has used the "Transformer" concept elsewhere, including a large-ish 18.4" tablet that can be used freehand as a tablet or dropped into a desktop frame and which can dual-boot into either Android or Windows 8. In 2011, Hasbro Toys actually sued ASUS as a threat to their Transformer Robot toys. Hasbro lost, because as the judge said, the tablets really do transform.

3. The ASUS Transformer Prime (TF201)

Here, we're looking at the first tablet to be built around a quad-core processor, specifically the Nvidia Tegra 3 T30, at a 1.3 gb clock speed (the processor maker is familiar to those of you that follow graphics cards), live memory of 1gb, internal storage of 32gb or 64gb flash, plus a micro-SD slot for up to another 64 gb. It was originally shipped with Android 3.2 Honeycomb, then 4.0 "Ice Cream Sandwich" (ICS) but since upgraded to 4.1.1 "Jelly Bean". Ironically, the fact that Android had Flash animation—and Apple didn't—was a major decision point for me, but then Adobe decided to drop out and Flash went away as Jelly Bean came in.

I've had this device for about a year, and it has since been one-upped—OK, actually two-upped—by both a down-priced TF300 and the higher-hardware-quality TF700T "Infinity" model, which is conceptually the same but offers a T33 1.6 gb quad processor and better display resolution, up from 1280x800 to 1920x1200 for true 1080p HD. "Infinity" struck me as a dubious name choice; whatever it does, next year's model will be doing more. The Tegra 3 processor will become a Tegra 4, and so forth, but marketers must market.

While ASUS has released an "L" version (L = LTE, or 4G phone-plan capable) of each tablet from the 201 forward, as well as a 3G version of the TF101, the carriers (AT&T, Verizon, etc.) have not been particularly receptive (in other words, they won't help bring down the device cost like they do with your smartphone), and you don't see that model much. That may change as marketing models do.

Tour of structure:

- Overall, it’s a 10.1" tablet with optional keyboard/battery dock. It’s thin (8.3mm) and light (1.3 lb)(tablet only), with an all spun-aluminum case that hovers somewhere between gray and purple, so we’re calling it “amethyst gray.” That metal case caused ASUS some pain early on; in an effort to make a very durable clam shell case, they went halfway to making a Faraday cage that GPS couldn’t penetrate. For the first year, they gave away an apologetic exterior dongle to boost location performance, then removed all references to GPS from US advertising. Back in the real world, most users experienced perfectly adequate GPS service, since they were nearly all wi-fi only.

- Price point as shown (32gb) was @ $550 best web price, including keyboard, but now available in refurbs for half that as a passed-over model.

Tablet physical controls:

- There's a power/reboot button on the top edge, along with a microphone that combines with the 1.2 mp front camera to start you off Skype-ready.The left side has a volume rocker control, as well as a Micro-HDMI socket. About that socket: the rolled case edge makes the micro plug seat poorly, a price paid for the slimmest, sleekest, rolledest-edged tablet in the world. There's a (to me, a little amazing) micro-SD card slot, up to 64 GB. (At this writing, a 32 GB chip is around $27, 64GB is around $50.)
- There's a multi-touch screen made of Corning Gorilla Glass, the camera is 8mp rear, 1.2mp front. The right edge has a standard in/out stereo audio jack and a most unimpressive mono audio speaker, but the sound circuitry is fine—a "personal speaker" of some sort for home is a welcome upgrade. At bottom center is a proprietary charge/data jack, which is also the docking connector.
- The optional docking keyboard is compact QWERTY, and the Chiclet style bucks the trend toward touch screen keys; there are 20 physical hot keys, and a multi-touch touchpad.
- The left edge takes the same proprietary charge/data jack as the tablet, and charges both. There's a USB 2.0 jack, a second battery that doubles life to 15 or 16 normal-use hours, and a standard SD Card socket which is seen by the file manager as just another external drive (*or* if you're feeling *truly* geeky, could house a micro SD *adapter* with another 64 GB micro card to bring your total onboard storage to 192 GB).
- In a way that you have to pause to think about, the keyboard doubles as a non-fatigue stand, saving you from left-hand tablet drag. Connecting to keyboard switches off tilt control, which can also be done through settings.

- Functionally, the three "Home Keys" are nearly always present: a "Back" key, a "Go to Home Screen", and a "Recently Viewed Apps." Reminiscent of earlier Apple, Android is long on back and short on forward; try to find a forward delete key or a "Forward browser button". There's a full Apps Directory, regardless of which ones you've copied to your home screens. There's a browser (which my bank identifies as Safari), a direct app to link you to Youtube, a Picture Gallery, File Manager, and Music Player

just as you'd expect them. And then of course there are those other 750,000 Android apps at the Google (and Amazon) app store(s), about fifty of which you may just find very useful.

Now it's up to you. Good luck, and happy motoring.