What's New?

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J. Willard Marriott Library
THE UNIVERSITY OF UTAH

50 YEARS
ALL U NEED

MacBook Pro refreshed

- Intel "Coffee Lake" CPUs (up to ~50-70% improved performance)
- 32GB maximum RAM in 15-inch
- Optional 2.9Ghz i9 CPU in 15-inch
- True Tone display (from latest iPhones)
- T2 (Secure Enclave, SMC, SSD controller, Touch Bar, Hey Siri and power switch)
- Quieter keyboard, silicone membrane fixes previous butterfly issues? (More on this in a moment)

MacBook Pro '18 cost

- 2.9GHz, 6-core i9 (~$300 over base)
- Radeon Pro 560x (4GB) (~$100)
- 32GB RAM (~$400)
- 4TB SSD (~$3300)

Customize your 15-inch MacBook Pro - Space Gray

2.9GHz 6-core 8th-generation Intel Core i9 processor, Turbo Boost up to 4.8GHz

Retina display with True Tone

Touch Bar and Touch ID

Radeon Pro 560X with 4GB of GDDR5 memory

32GB 2400MHz DDR4 memory

4TB SSD storage

Four Thunderbolt 3 ports

Backlit Keyboard - US English

...er today, delivers:
24 - Jul 26 – Fastest
26 - Jul 30 – Free
...ivery options for 84101"

$6,699.00   Add to Bag

Up to 18 months of special financing ›

On the subject of keyboards…

✤ Keyboard Service Program for MacBook and MacBook Pro

✤ Possibly free keyboard (entire upper case, possibly including a battery) replacement, depending on reasons…

✤ MacBooks (2015+) and MB Pros (2016+)

✤ https://www.apple.com/support/keyboard-service-program-for-macbook-and-macbook-pro/

Blackmagic eGPU

- Sold exclusively through Apple
- $699
- non-upgradable Radeon Pro 580 (8GB)
- not a traditional enclosure
- no Windows/Bootcamp support

Blackmagic eGPU

- 2 Thunderbolt 3 ports
- 4 USB 3.1 ports
- HDMI 2.0
- 85W of charging power
- ridiculously short Thunderbolt cable

Comparison with a traditional enclosure

- Sonnet eGFX Breakaway Box 350
- Radeon RX 580 (8GB)
- Single Thunderbolt 3 port
- Single PCIe 3.0 slot
- $549 (Amazon)
- Nvidia GPUs not officially supported by Apple
- https://support.apple.com/en-us/HT208544

SONNET

eGFX BREAKAWAY BOX

set-eGPU.sh

Accelerate macOS applications using external graphics.

✤ https://github.com/mayankk2308/set-egpu

✤ "Allows you to set graphics preferences for macOS applications, and force use of external GPUs, even on internal displays."

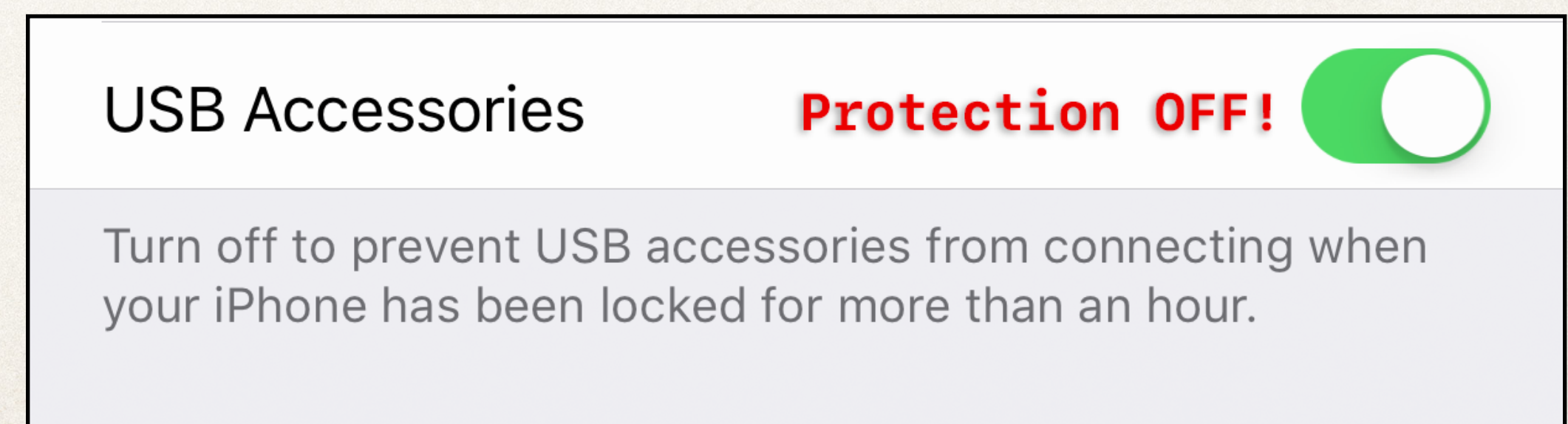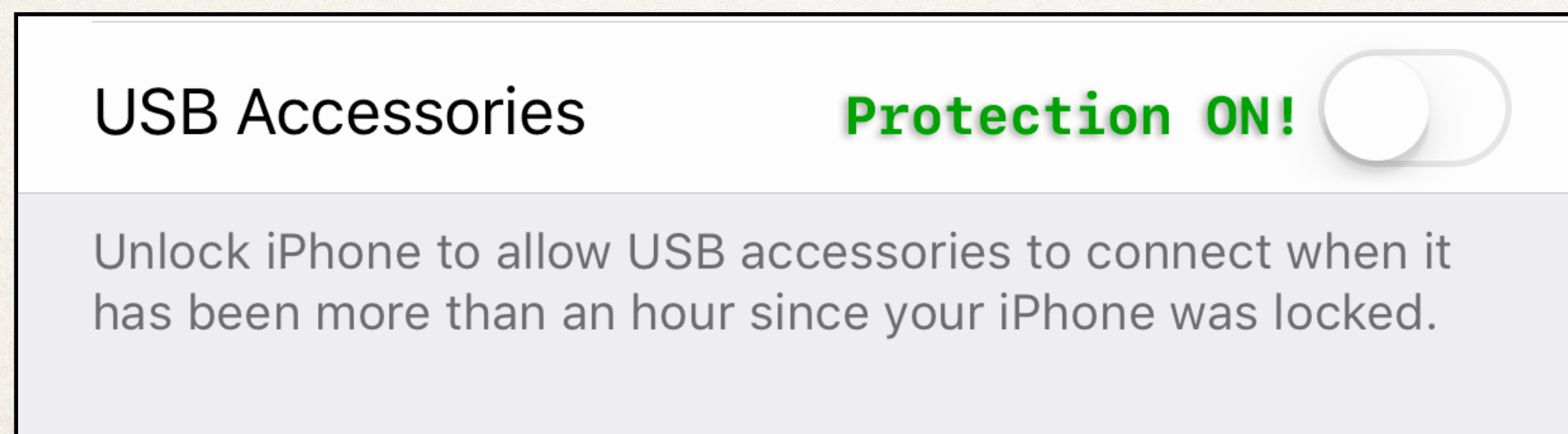✤ https://9to5mac.com/2018/07/01/egpu-acceleration-internal-display-mac-apps-macos-video/

Whither AirPower?

- Due by June
- Now September?
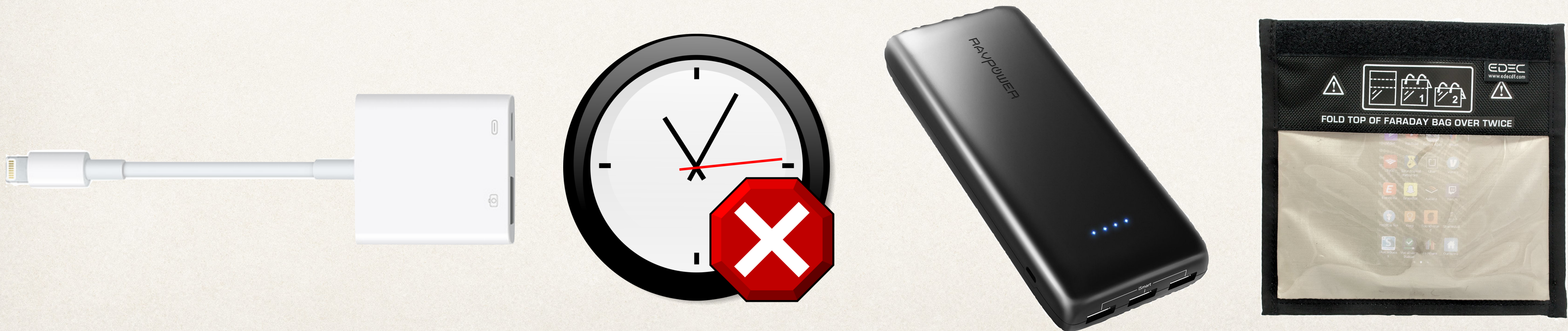- Difficulties managing multiple charging coils?

Using USB Restricted mode in 11.4.1

✤ *POSSIBLE* protection from Cellebrite and Grayshift Graykey types of devices

✤ Should be enabled by default.

✤ **Settings**, {**Face ID** or **Touch ID**} & **Passcode**
Enter passcode
Scroll down…

USB Accessories	**Protection ON!** ⬜
Unlock iPhone to allow USB accessories to connect when it has been more than an hour since your iPhone was locked.	

USB Accessories	**Protection OFF!** ✅
Turn off to prevent USB accessories from connecting when your iPhone has been locked for more than an hour.	

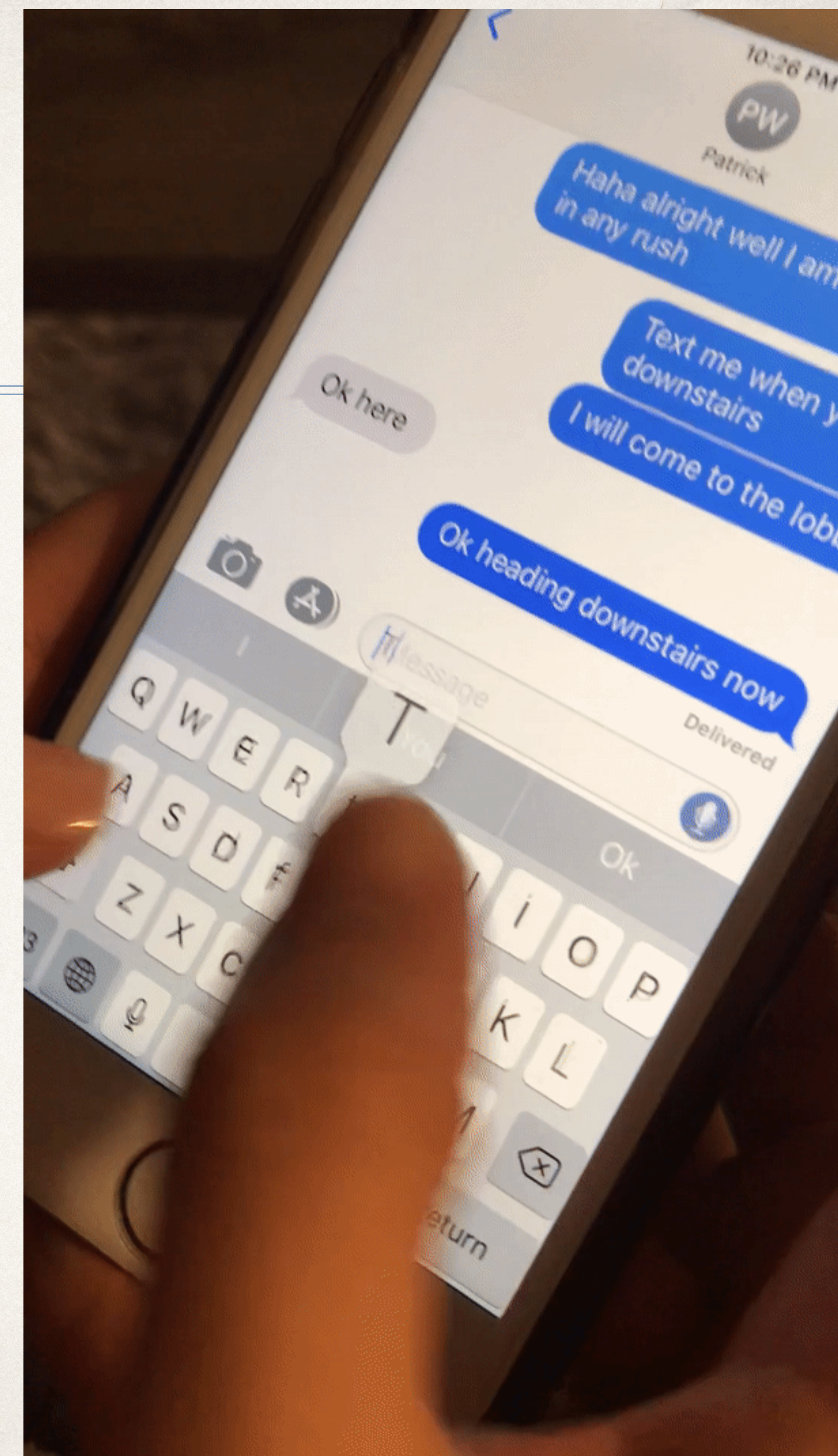# Defeating USB Restricted mode in 11.4.1

✤ https://blog.elcomsoft.com/2018/07/this-9-device-can-defeat-ios-usb-restricted-mode/

✤ https://blog.elcomsoft.com/2018/07/usb-restricted-mode-inside-out/

Taiwa… [crash]

✤ https://objective-see.com/blog/blog_0x34.html

✤ Only affected some "region-less" configurations

✤ corrected in iOS 11.4.1

Adobe Photoshop to iPad in 2019

✤ https://www.bloomberg.com/news/articles/2018-07-13/adobe-is-said-to-plan-photoshop-for-ipad-in-app-strategy-shift

✤ https://arstechnica.com/gadgets/2018/07/adobe-plans-to-bring-full-version-of-photoshop-to-the-ipad-next-year/

✤ Planned debut at Adobe MAX in October.

TLBleed

✤ https://www.vusec.net/projects/tlbleed/

✤ Intel Hyperthreading side-channel vulnerability leveraging the translation look-aside buffer (TLB)

✤ processes that share physical cores, but run on different logical cores, can inadvertently leak data to each other

✤ OpenBSD is disabling Hyperthreading, by default. Announcement at Black Hat in August

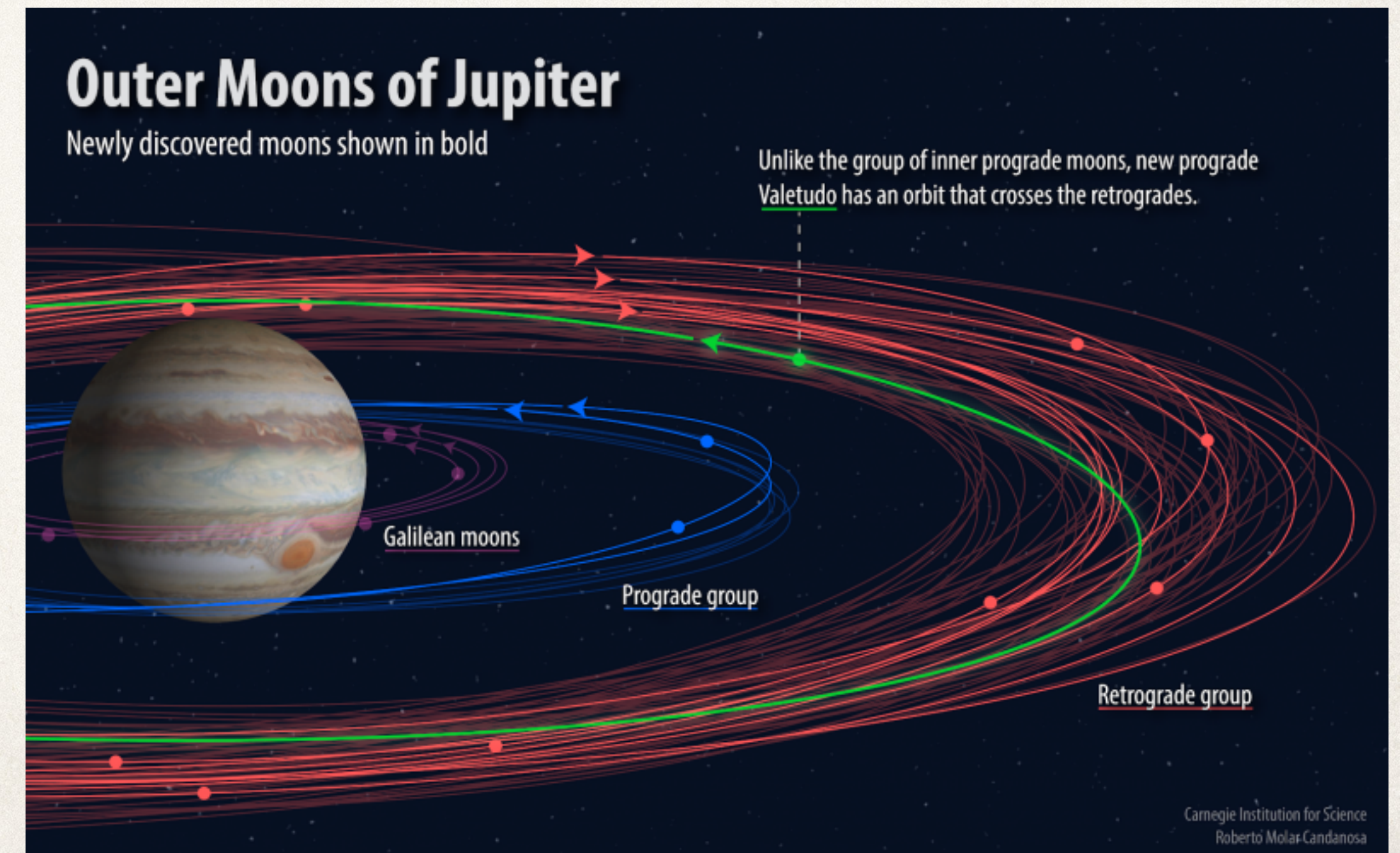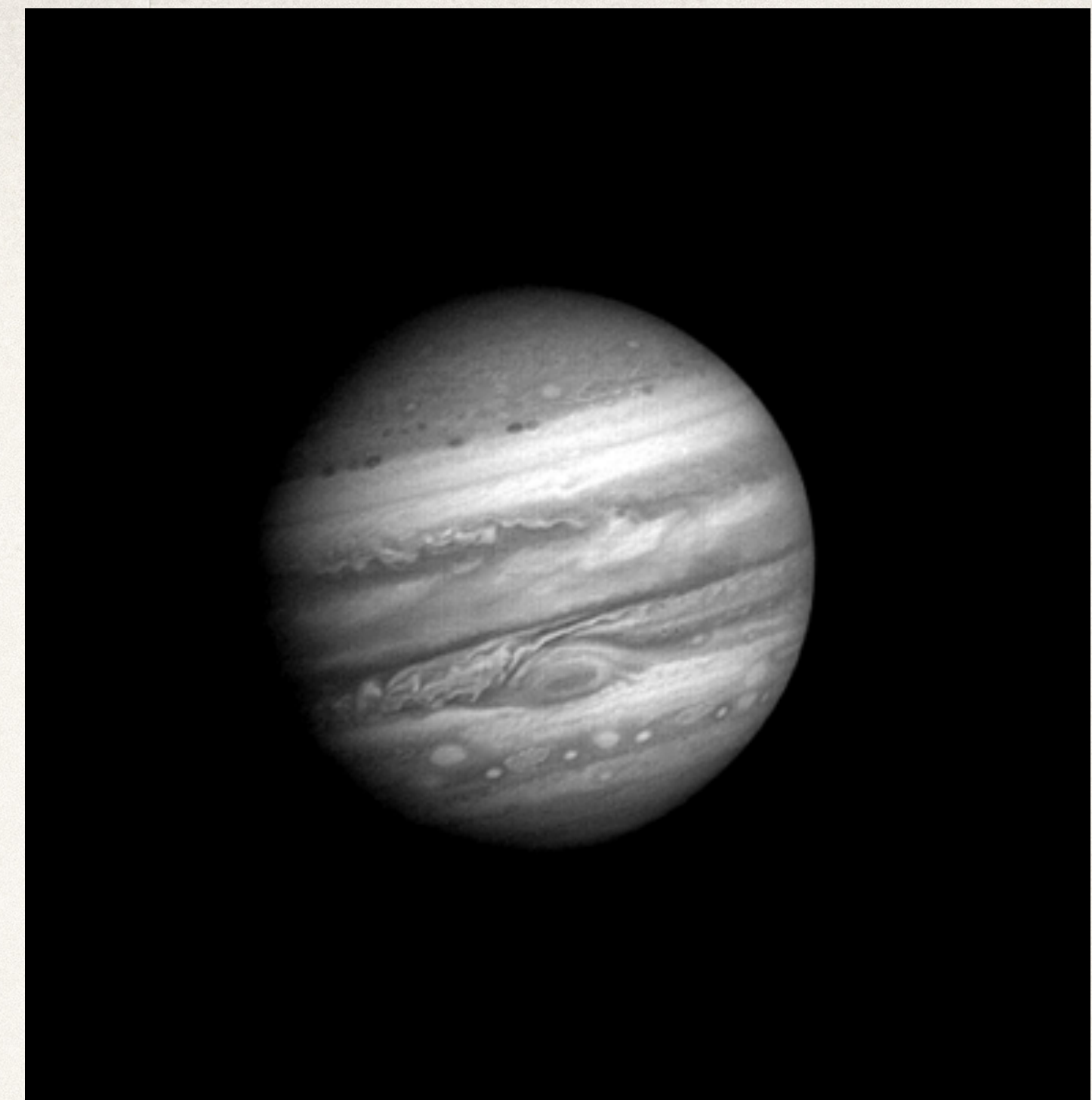✤ https://arstechnica.com/gadgets/2018/06/tlbleed-a-new-way-to-leak-crypto-keys-on-hyperthreaded-processors/

Python's *Benevolent Dictator for Life* steps down

* Guido van Rossum

* "But I'm basically giving myself a permanent vacation from being BDFL, and you all will be on your own."
https://lwn.net/Articles/759654/

* https://en.wikipedia.org/wiki/Benevolent_dictator_for_life

* Thank you, Guido!!!

79!

Outer Moons of Jupiter
Newly discovered moons shown in bold

Unlike the group of inner prograde moons, new prograde Valetudo has an orbit that crosses the retrogrades.

Galilean moons

Prograde group

Retrograde group

Carnegie Institution for Science
Roberto Molar Candanosa

✤ https://carnegiescience.edu/news/dozen-new-moons-jupiter-discovered-including-one-%E2%80%9Coddball%E2%80%9D

STRANGE PARTS
Adventures from the technological fringe

* https://www.youtube.com/channel/UCO8DQrSp5yEP937qNqTooOw

iPhone Adventures   PLAY ALL

How I Made My Own iPhone - in China
Strange Parts ✓   14M views • 1 year ago
I built a like-new(but really refurbished) iPhone 6S 16GB
phone parts markets in Huaqiangbei. And it works! How
CC
23:49

Bringing BACK The iPhone Headphone J
Strange Parts ✓   5.9M views • 10 months ago
I love my iPhone, but it doesn't have a headphone jack! S
made an iPhone in China video: https://youtu.be/IeFuF-:
CC
33:34

Making a CUSTOM iPhone - in Shenzhen
Strange Parts ✓   960K views • 5 months ago
Enough of these boring looking iPhones - let's make a c
China. I headed out to the cell phone parts markets in H
CC
19:02

Making a Custom GLOWING iPhone Log
Strange Parts ✓   688K views • 4 months ago
Enough of that boring Apple logo - let's turn it into a glow
quest to make a custom iPhone in Shenzhen, China Sha
CC
26:13