

What's New?

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2018 in review

- ❖ Lots of new Apple hardware and software
- ❖ Apple's rollercoaster stock price (\$150.24 - \$233.47), Trillion dollar company
- ❖ Bloomberg SuperMicro / Apple / Amazon "story" (Still no external confirmation, retraction soon?)
- ❖ T2 chips and the death of the hobbyist user?
- ❖ New vulnerabilities: speculative execution, Meltdown / Spectre, TLBleed, Foreshadow
- ❖ Flash continues to have a continuous stream of critical security updates
- ❖ Adobe killed lab licensing for CC without providing a replacement...
- ❖ Breaches galore: Facebook / Cambridge Analytica, Quora, Post Office, Google Plus (twice), etc, etc, etc...
- ❖ Ransomware is still a thing, but declining due to Bitcoin difficulty / crash?
- ❖ Things to look forward to next year: the modular **Mac Pro!**, iOS Apps on MacOS, AirPower?!?, ARM on Mac?

Apple selling LumaForge Jellyfish storage servers

- ❖ Mobile, Rack and Tower
- ❖ 1GB / 10GB Ethernet connectivity
- ❖ 32TB / 80TB Mobile, \$12K / \$20K
- ❖ 120TB Tower, \$40K
- ❖ 120TB / 200TB Rack, \$40K / \$50K
- ❖ Can daisy chain multiple devices



LUMA **FORGE**



DriveSavers offers consumer iOS “Passcode Lockout Data Recovery”

- ❖ <https://www.macrumors.com/2018/11/27/drivesavers-ios-passcode-recovery-service/>
- ❖ \$3900
- ❖ “new proprietary technology”, “100% success rate”
- ❖ will unlock and return device to owner, with optional data backup



PASSCODE LOCKOUT

Recover Your Data from a Passcode-locked Phone or Tablet

 > [Data Recovery Services](#) > [Recoverable Devices](#) > [Smartphones](#)

iTunes 12.8.1 update breaks Yosemite's Safari

- ❖ <https://www.macrumors.com/2018/12/14/itunes-12-8-1-breaks-safari-on-osx-yosemite/>
- ❖ Fix suggested in the article, or wait until Apple corrects the issue

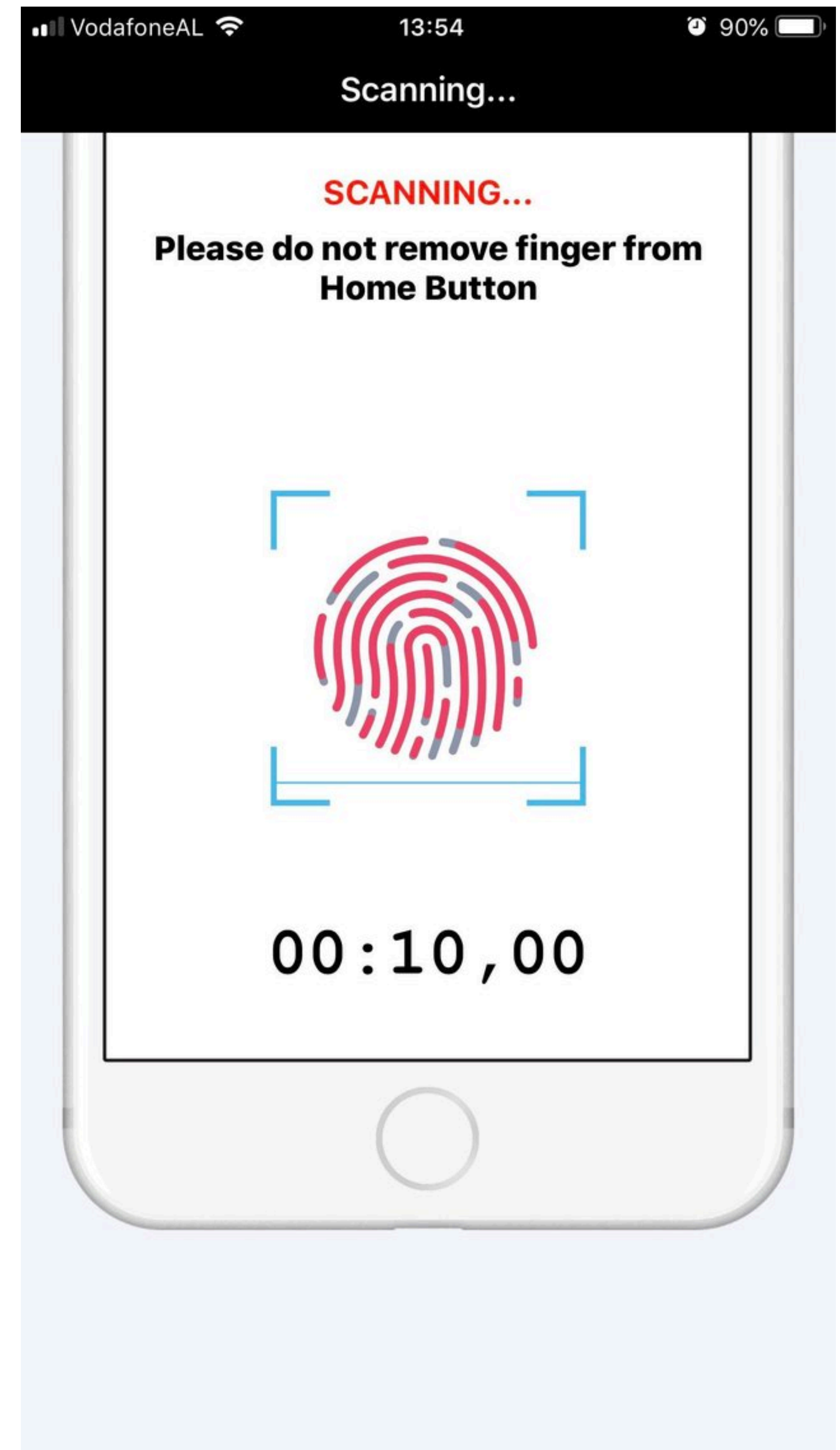
Face ID not fooled by 3D sculpture...

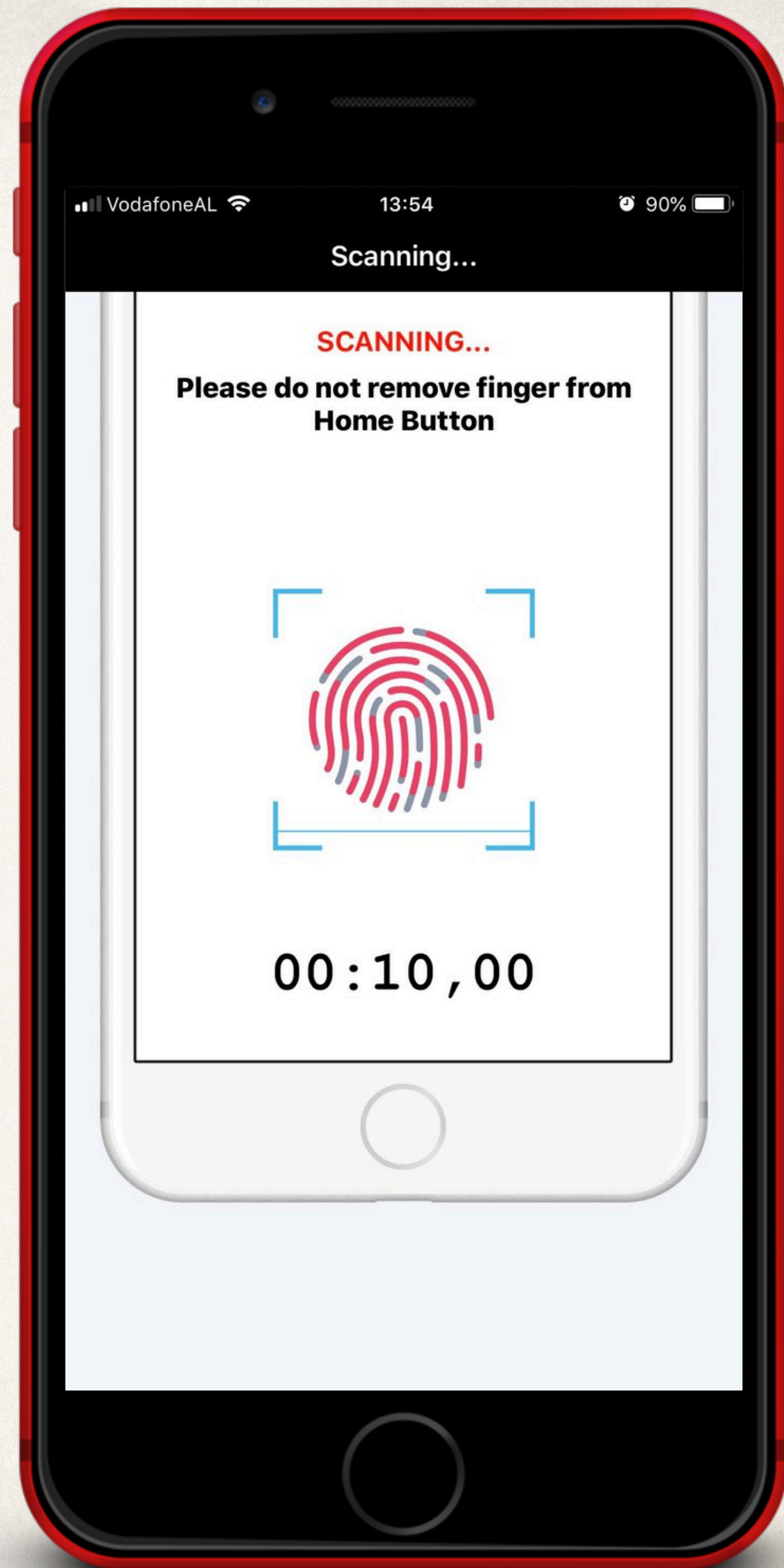
- ❖ <https://www.forbes.com/sites/thomasbrewster/2018/12/13/we-broke-into-a-bunch-of-android-phones-with-a-3d-printed-head>
- ❖ *"The iPhone X was the only one to never be fooled."**
- ❖ Android manufacturers state facial recognition not designed for security, only convenience.
- ❖ *There has been a separate report of Face ID being spoofed by a mask.

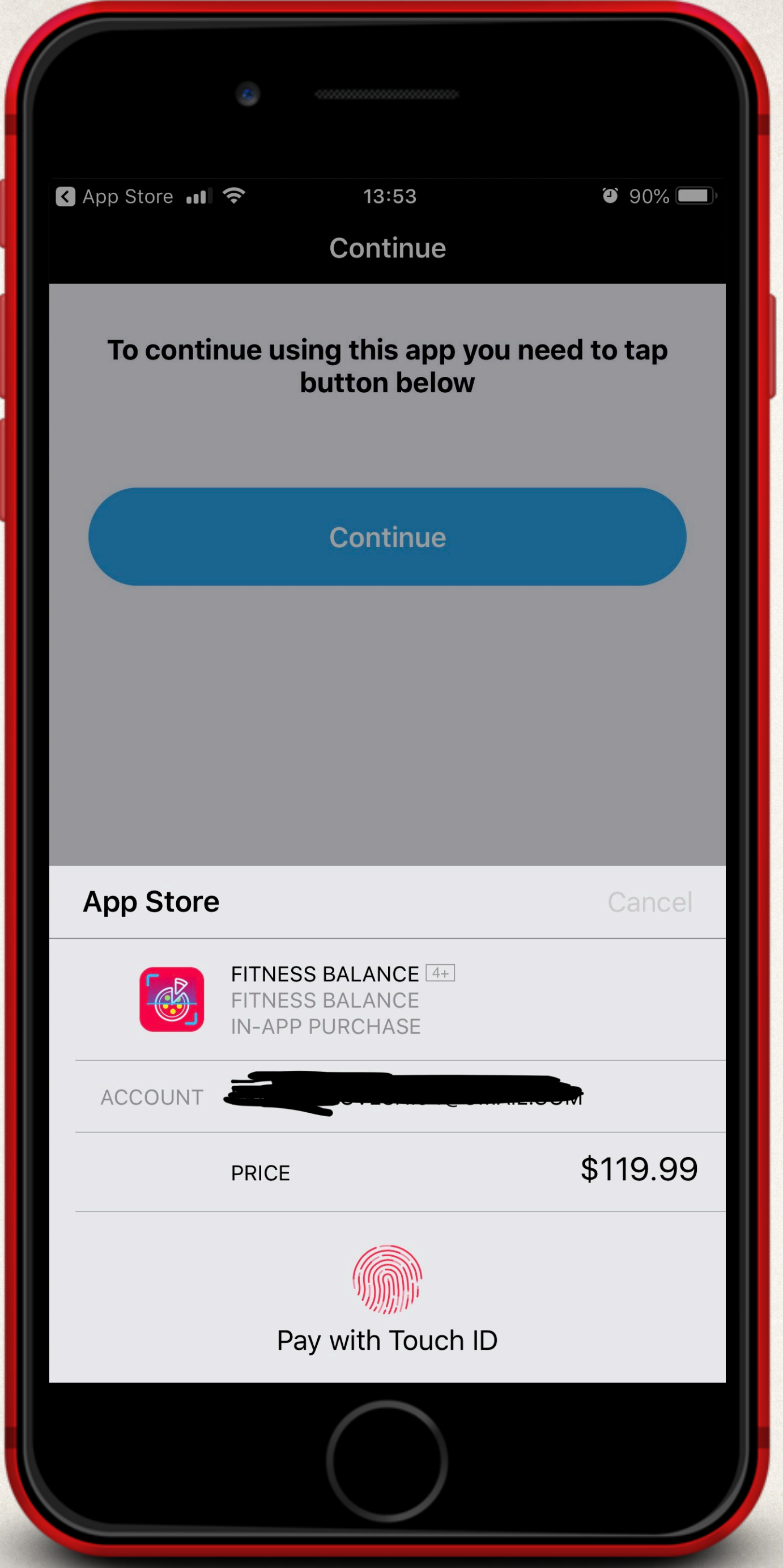


Face ID/Touch ID scammers

- ❖ [https://www.reddit.com/r/a\\$sholedesign/comments/a1h3xf/this app tricks you into asking for the/](https://www.reddit.com/r/a$sholedesign/comments/a1h3xf/this_app_tricks_you_into_asking_for_the/)
- ❖ <https://www.wired.com/story/iphone-touch-id-scam-apps/>
- ❖ Be sure you know what app is asking for approval and why!







Continue

To continue using this app you need to tap button below

Continue

App Store

Cancel



FITNESS BALANCE 4+
FITNESS BALANCE
IN-APP PURCHASE

ACCOUNT

[REDACTED]

PRICE

\$119.99



Pay with Touch ID

Marriott/Starwood Hack exposes 500M

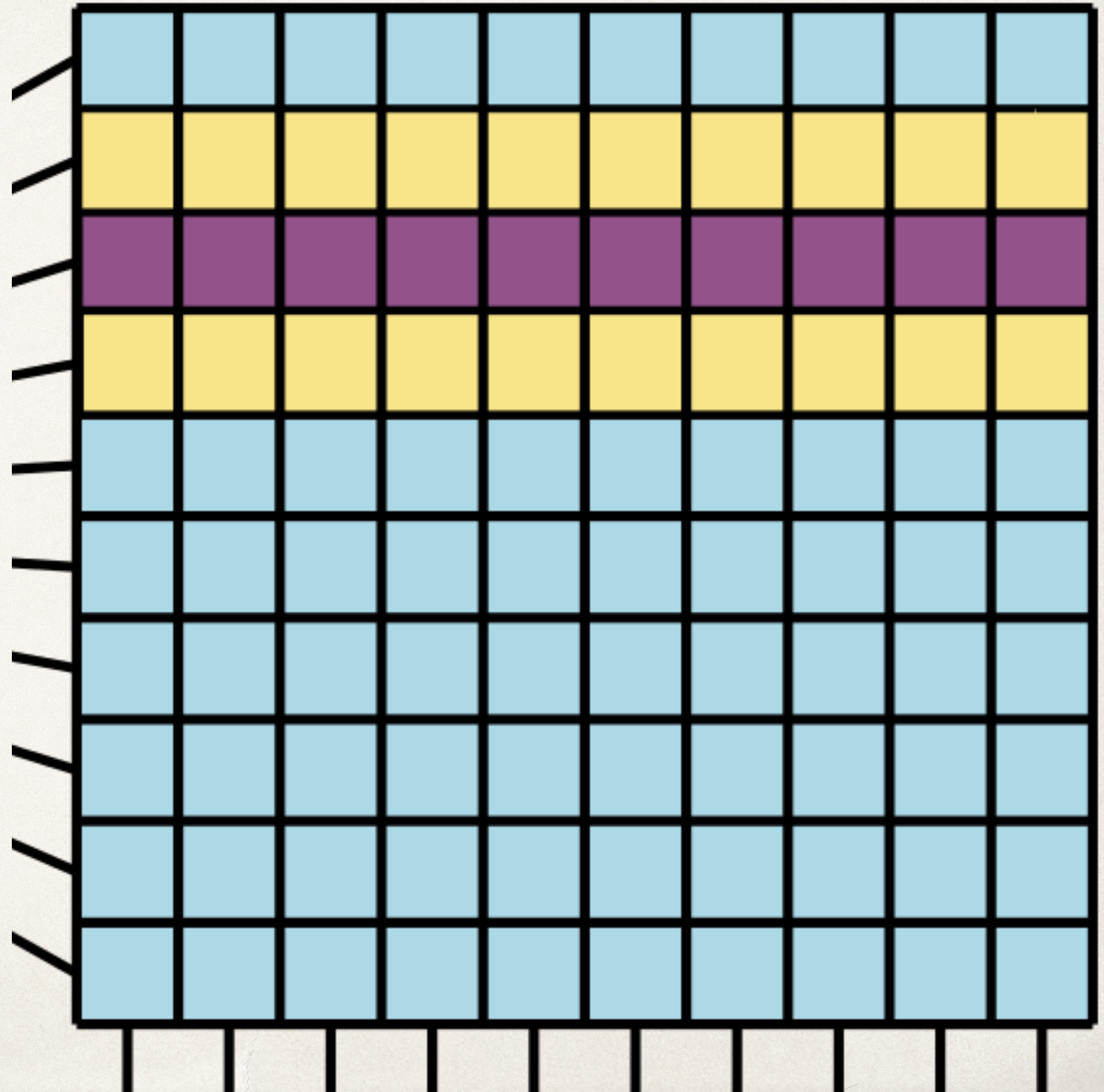
- ❖ <https://www.washingtonpost.com/business/2018/11/30/marriott-discloses-massive-data-breach-impacting-million-guests>
- ❖ Hack began in 2014 with Starwood
- ❖ Followed to Marriott when Starwood acquired in 2016
- ❖ Personal and contact information and encryption keys to credit card data
- ❖ <https://answers.kroll.com/>

starwood
Hotels and
Resorts



What is Rowhammer?

- ❖ Rapid reading of same memory locations, inducing single bit flips in adjacent areas
- ❖ DDR3, some 4. Not 1 or 2
- ❖ <https://en.wikipedia.org/wiki/Rowhammer>
- ❖ <https://arstechnica.com/information-technology/2015/03/cutting-edge-hack-gives-super-user-status-by-exploiting-dram-weakness/>



What is ECC RAM?

- ❖ *Error Correcting Code*, detect and correct internal data corruption
- ❖ https://en.wikipedia.org/wiki/ECC_memory
- ❖ Cosmic rays, man!
- ❖ Xserve G5, Mac Pro, iMac Pro, Itanium, Xeon, many AMD CPUs support ECC
- ❖ More expensive, extra hardware
- ❖ Is thought that architecture avoids Rowhammer effect...

ECCploit

- ❖ <https://www.vusec.net/projects/eccploit/>
- ❖ Thought to be highly improbable due to error correcting nature of ECC
- ❖ 1 bit flip in a 64-bit word will be corrected :)
2 bits will crash the process :o
3 bits will bypass ECC. :(
- ❖ Using timing side channel to detect differences when an error is corrected by ECC
- ❖ Not considered an immediate threat

Toshiba announces 12/14TB HDDs

- ❖ N300 (NAS)/X300 (desktop) helium-filled hard drives
- ❖ 7200 RPM, 256MB cache, SATA
- ❖ uses 1.56TB platters
- ❖ 12TB ~\$430, 14TB ~\$540



Google+ back in the news

- ❖ <https://arstechnica.com/tech-policy/2018/12/google-bug-exposes-non-public-profile-data-for-52-million-users/>
- ❖ 2nd G+ API bug resulting in breach
- ❖ Accelerating closure date to April, from August, 2019
- ❖ G+ API shutdown in 90 days

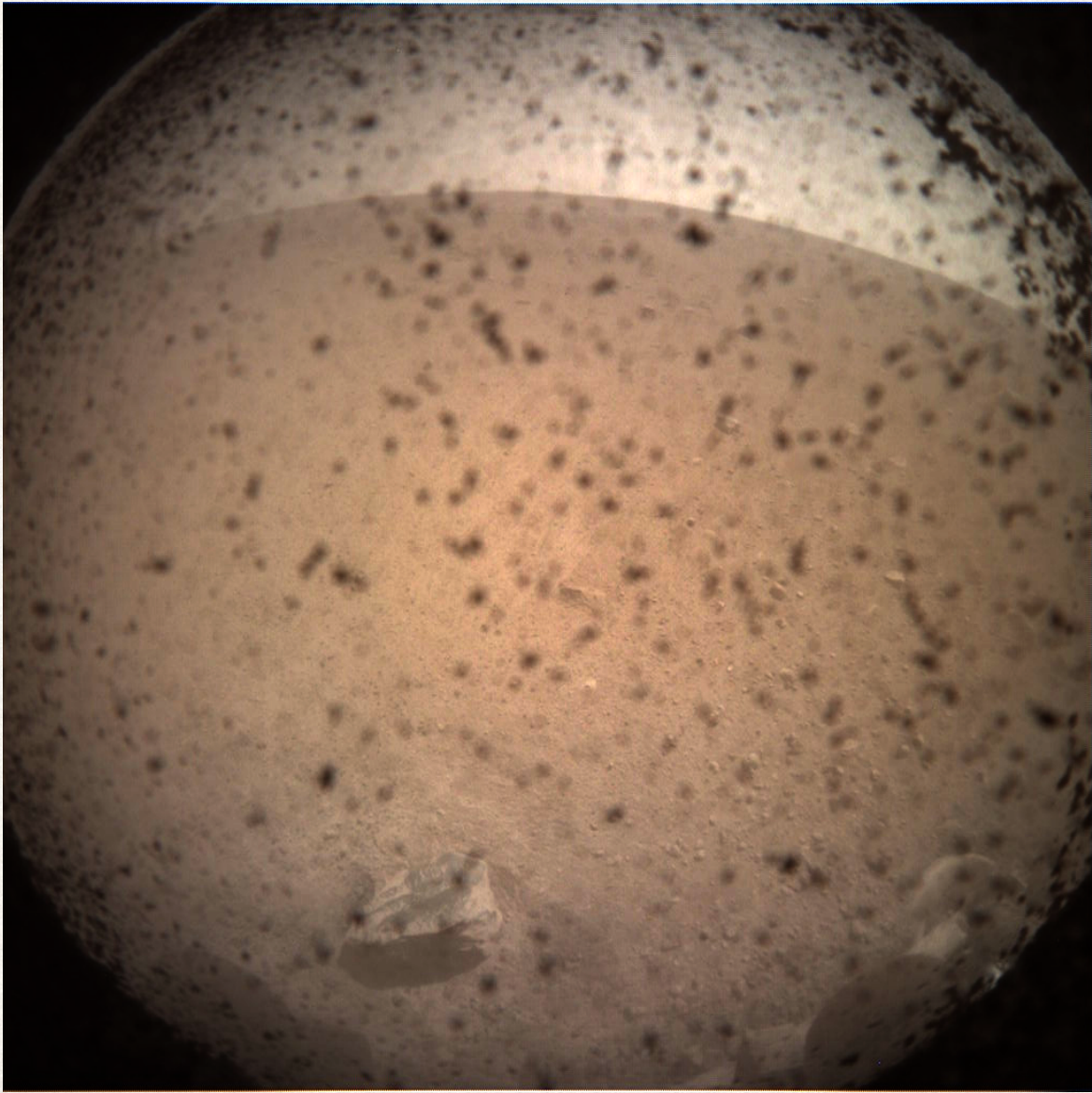
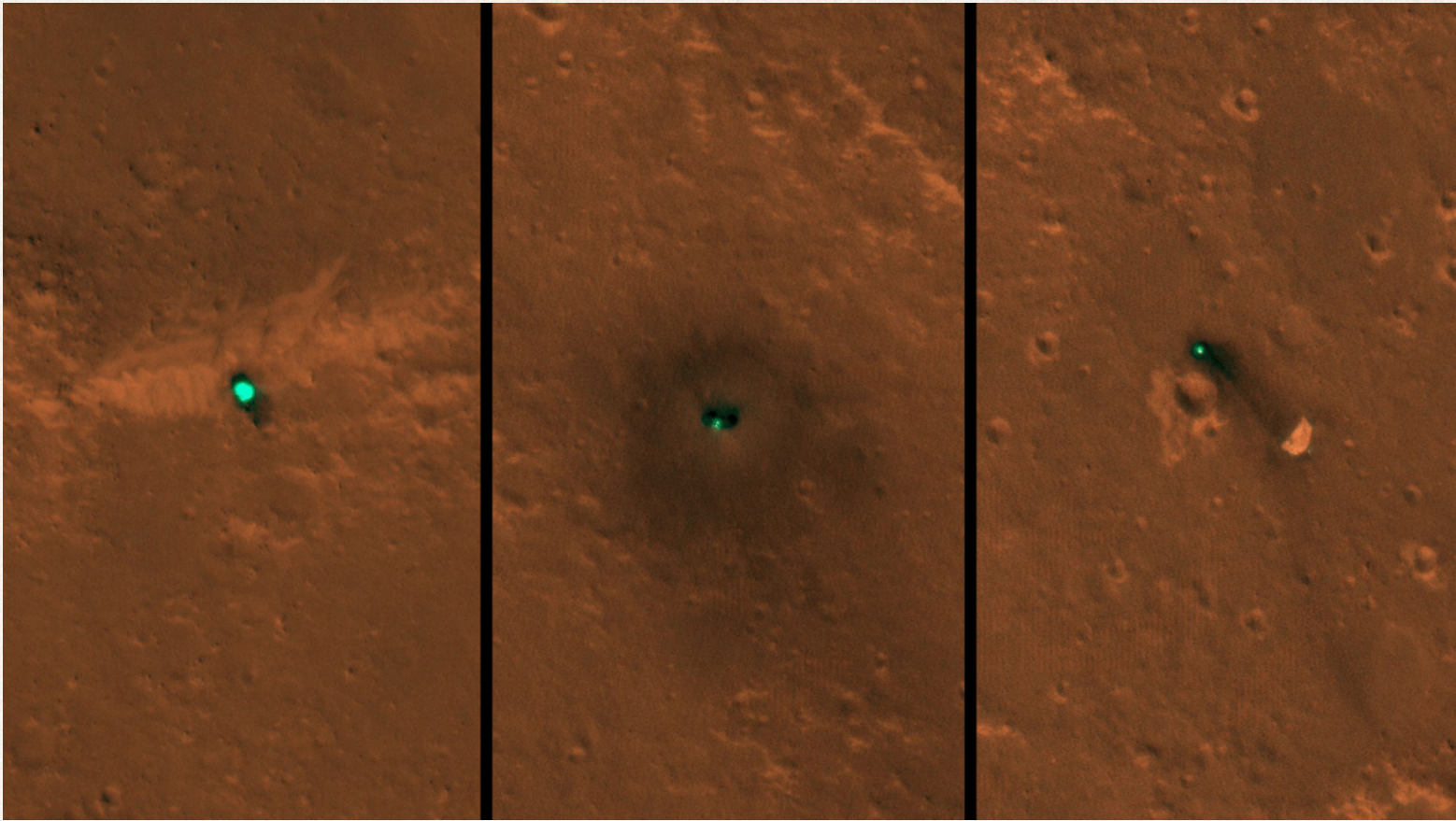
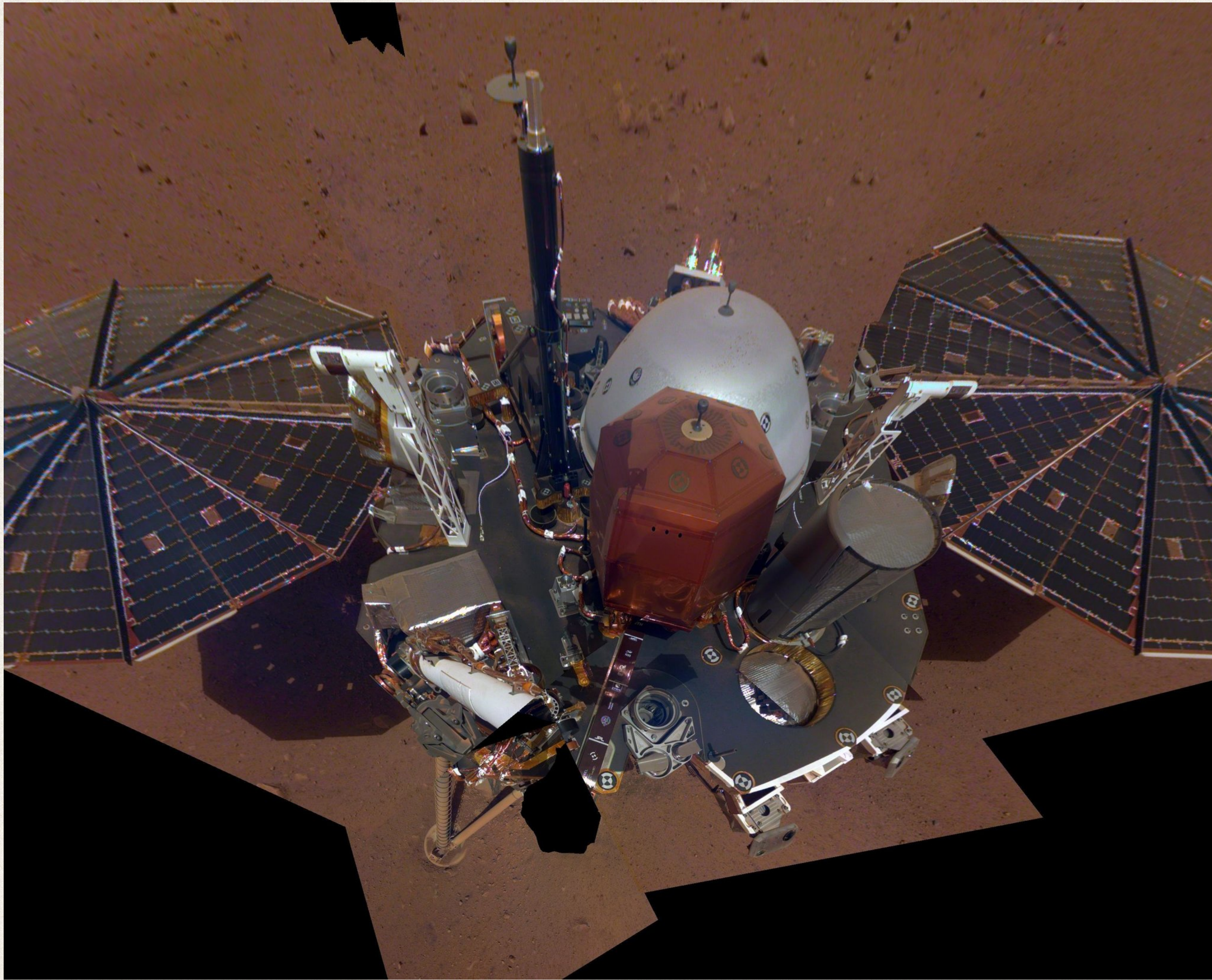
Australian Assistance and Access Act passed

- ❖ <https://arstechnica.com/tech-policy/2018/12/australia-passes-new-law-to-thwart-strong-encryption/>

“The new law, which has been pushed for since at least 2017, requires that companies provide a way to get at encrypted communications and data via a warrant process. It also imposes fines of up to A\$10 million for companies that do not comply and A\$50,000 for individuals who do not comply. In short, the law thwarts (or at least tries to thwart) strong encryption.”



“However, the law as currently written seems to contain what some view as a loophole. The statute says that companies cannot be compelled to introduce a "systemic weakness" or a "systemic vulnerability" into their software or hardware to satisfy government demands.”

- ❖ <https://blog.1password.com/does-australias-access-and-assistance-law-impact-1password/>

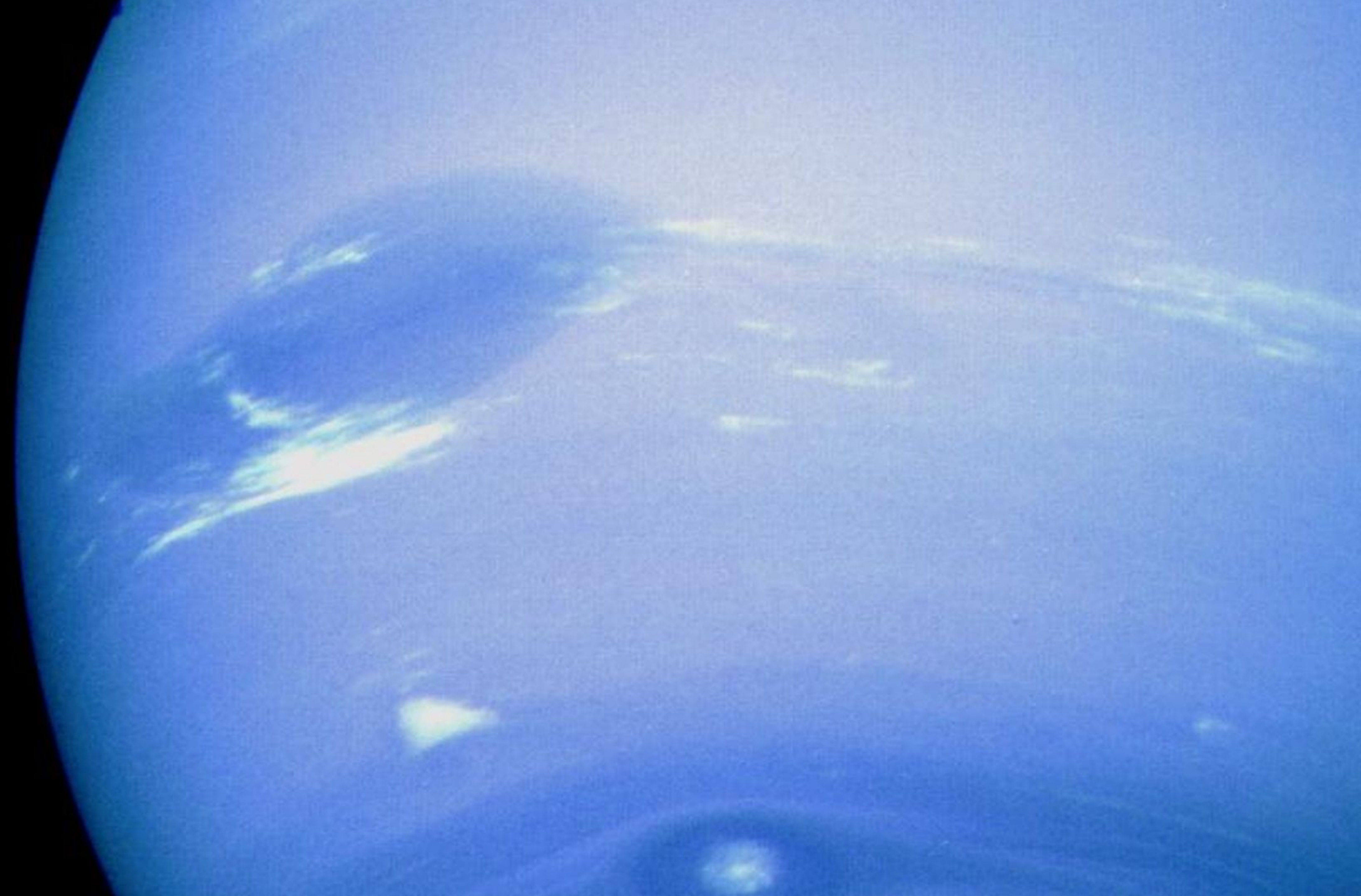


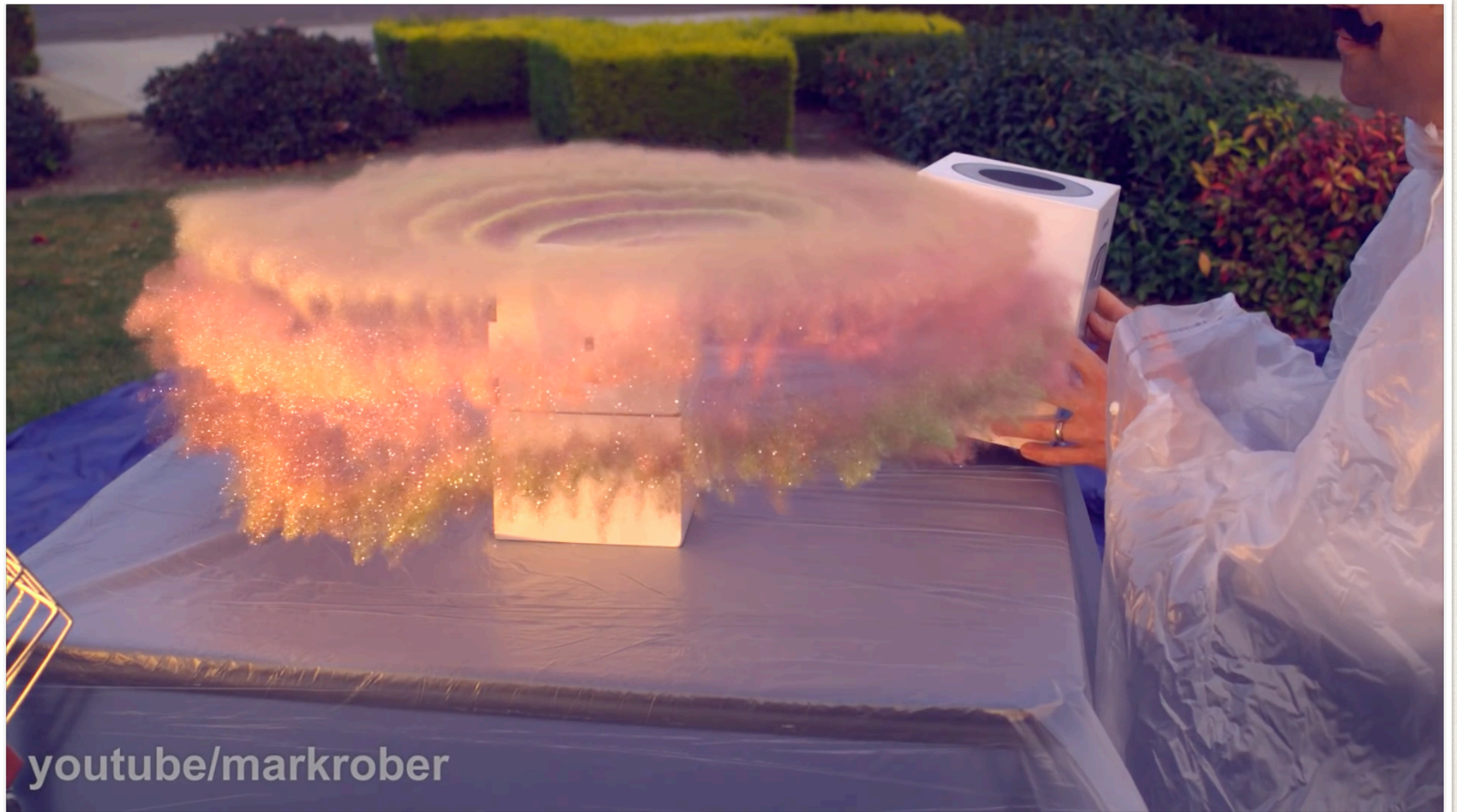
Voyager 2 passes into interstellar space

- ❖ <https://arstechnica.com/science/2018/12/voyager-2-joins-its-sibling-in-interstellar-space/>
- ❖ Both still expected to operate to mid-2020's
- ❖ <https://voyager.jpl.nasa.gov/mission/status/>

	Voyager 1	Voyager 2
Launch Date	Mon, 05 Sept 1977 12:56:00 UTC	Sat, 20 Aug 1977 14:29:00 UTC
Mission Elapsed Time	41:03:06:09:33:19 <small>YRS MOS DAYS HRS MINS SECS</small>	41:03:21:08:00:19 <small>YRS MOS DAYS HRS MINS SECS</small>
Distance from Earth	13,476,657,054 mi	11,156,349,976 mi
	144.97922851 AU	120.01782088 AU
Distance from Sun	13,401,707,126 mi	11,093,256,490 mi
	144.17293191 AU	119.33907356 AU
Velocity with respect to the Sun (estimated)	38,026.77 mph	34,390.98 mph
One-Way Light Time	20:05:45 (hh:mm:ss)	16:38:09 (hh:mm:ss)
Cosmic Ray Data		

IMP ☐ MET





Package Thief vs. Glitter Bomb Trap

JAMF PC Recon replacement announcement next month

Happy Holidays and an Awesome New Year!!!



J. Willard Marriott Library
THE UNIVERSITY OF UTAH

50 ALL U
YEARS NEED