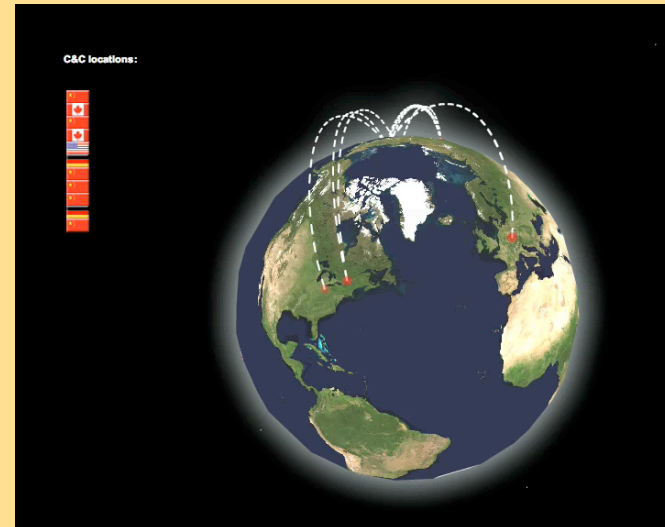
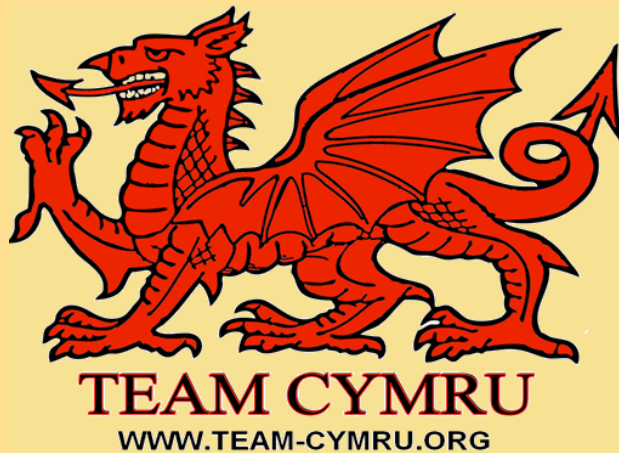


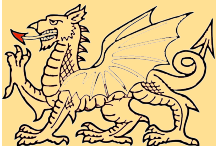
29 June 2009

Show Me The Evil



Dave Deitrich
Chief Technology Officer
Team Cymru

FIRST 21
Track 1 – 16:00-17:00
3F Genji West & North



About Team Cymru (1998-Present)

WHO?

Qui?

Wer?

¿Quién?

Kmo?

من؟

谁？

どなたですか？

누구세요?

מי?



WHY?

Pourquoi?

Warum?

¿Por qué?

Почему?

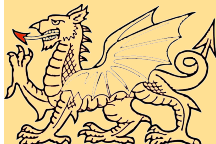
لماذا؟

为什么？

何故ですか？

왜요?

למה?



About this Presentation

¿Tan malo es? Jak je to špatné? Hur illa är det?

كيف هي سيئة؟ Cât e de rău? Hoe erg is het?

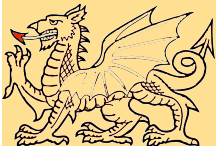
如何坏是什么? Come è brutto? कितना बुरा है?

Comment est-il mauvais? Насколько это плохо?

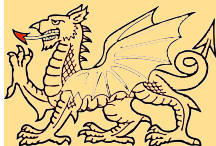
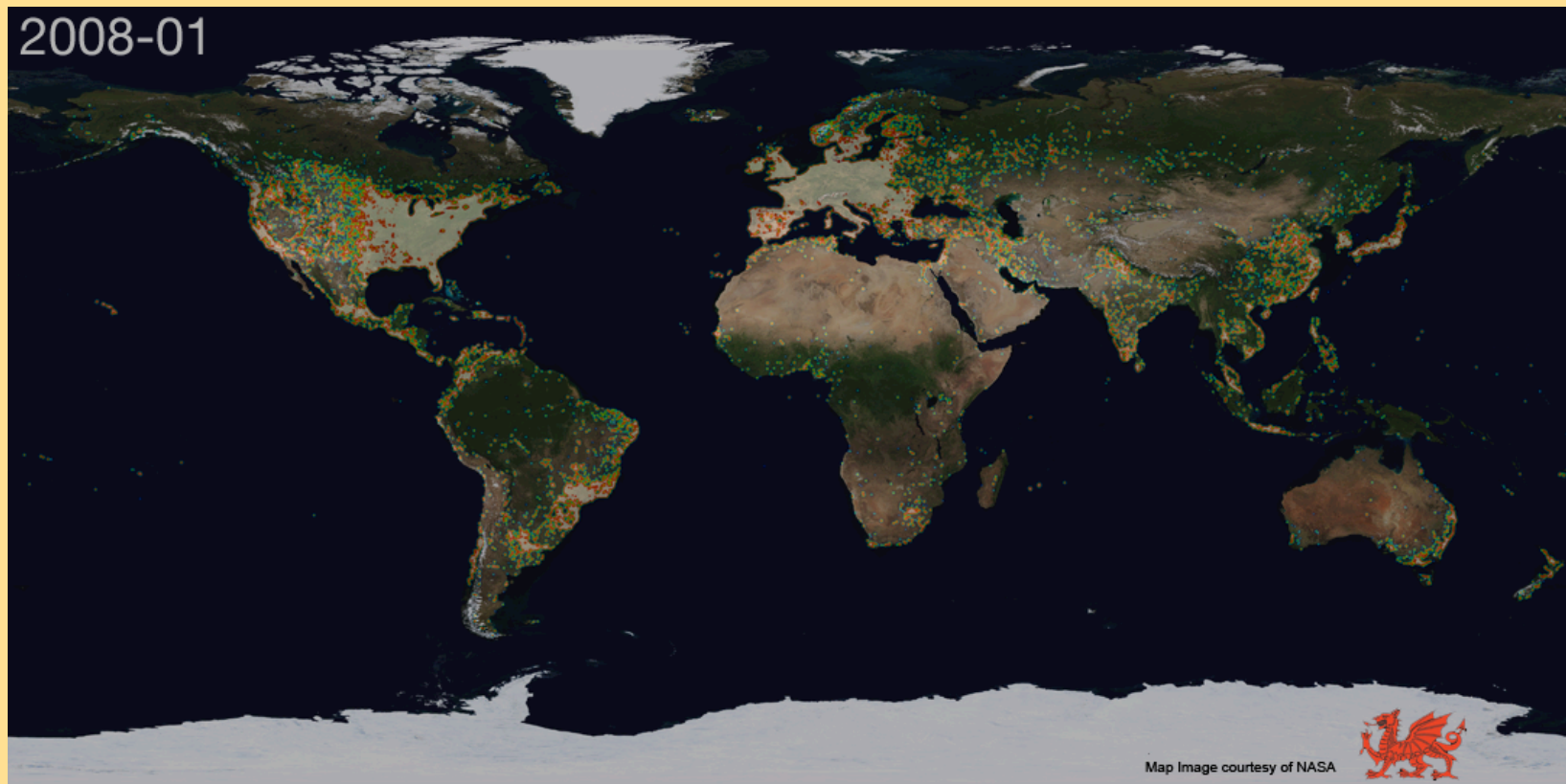
Wie schlimm ist es? Ne kadar kötü? כמה גרוע זה?

どのように悪いのでしょうか? วิธีเลวคือมันได้หรือไม่

얼마나 안 좋은가요? Kako je to loše? How bad is it?



Internet “Evil” in 2008



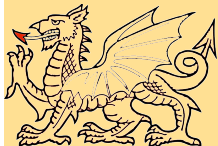
Bad Neighborhoods (By Count)

Country	Count
China	12,960,231
United States	9,046,360
Germany	6,324,031
Brazil	6,123,311



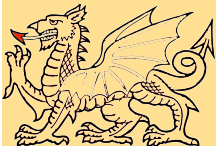
Bad Neighborhoods (By Percent)

Rank	Country	Count	% Malicious Ips
#1	Dominican Republic	194,777	48.06%
#2	Equatorial Guinea	825	40.28%
#3	Algeria	106,629	40.13%
#4	Djibouti	1,514	36.96%
#43	Brazil	6,123,311	20.58%
#107	Germany	6,324,031	7.43%
#115	China	12,960,231	6.89%
#201	United States	9,046,360	0.62%

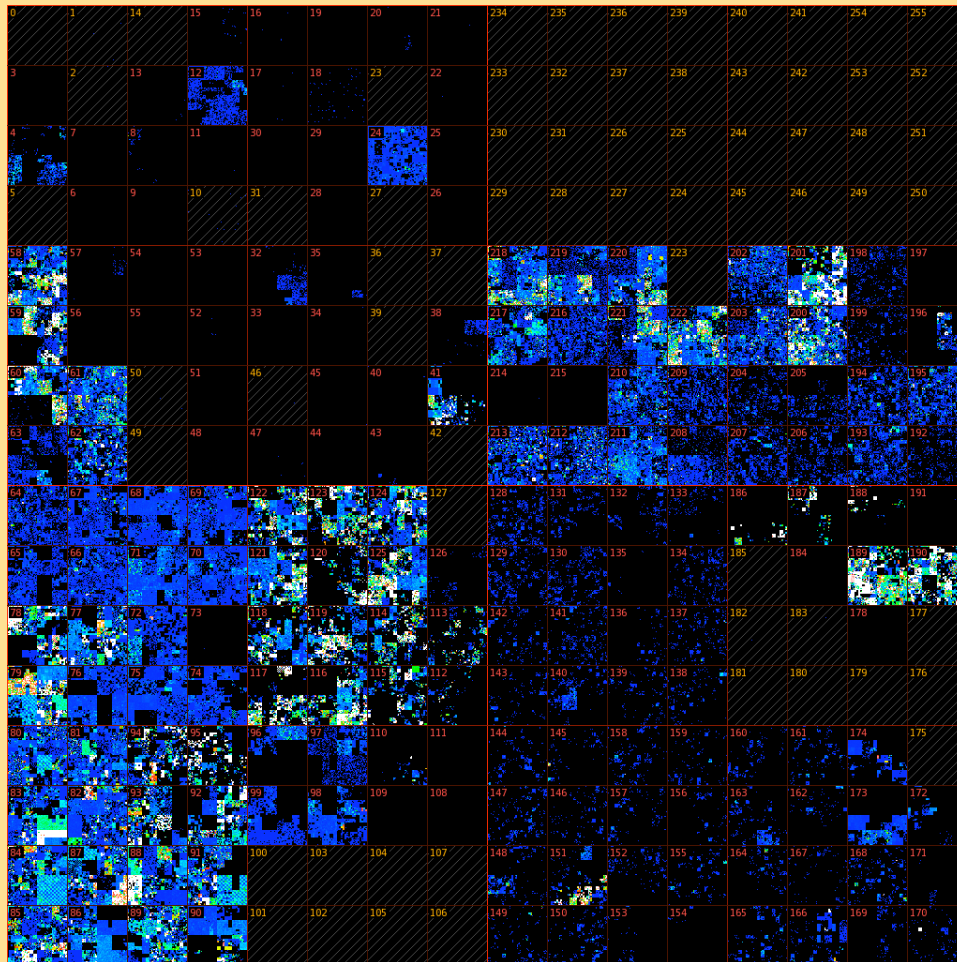


Bad Neighborhoods (By /8 Network)

Network	Prefixes	Designation	Countries	Count
201/8	3,890	LACNIC	21	3,774,135
189/8	2,466	LACNIC	2	3,703,918
190/8	5,699	LACNIC	23	3,505,554
88/8	973	RIPE NCC	45	3,324,326
79/8	1,055	RIPE NCC	47	3,289,545
78/8	1,528	RIPE NCC	53	2,956,894

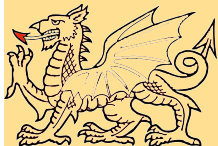
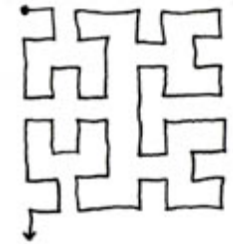


Bad Neighborhoods (Hilbert Curve)

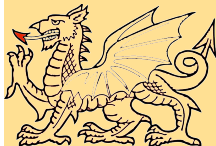
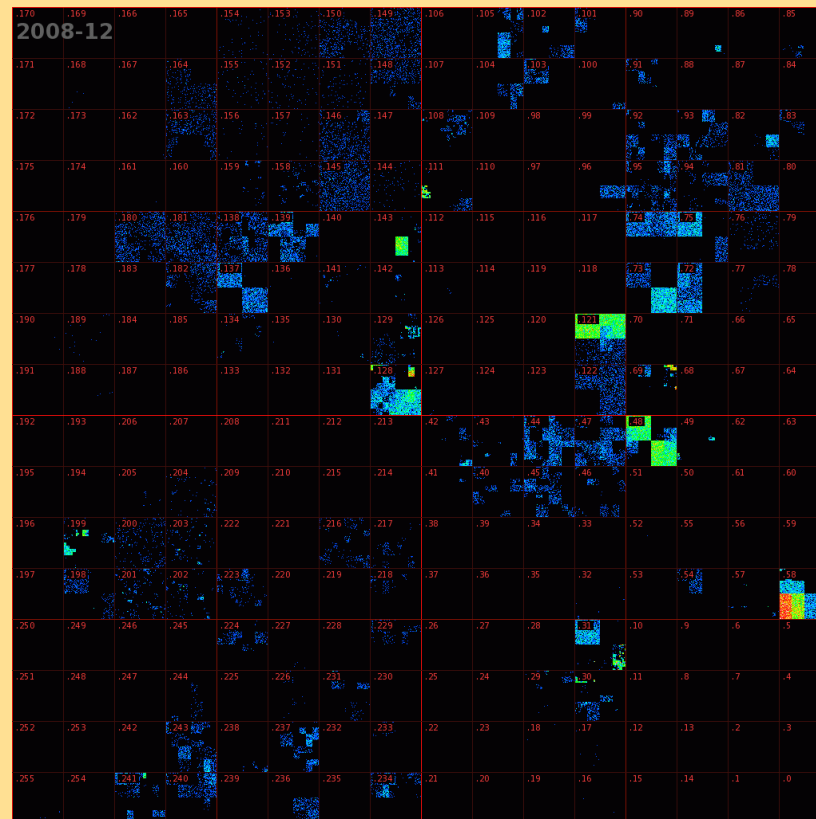


Hilbert Graph
<http://xkcd.com/195/>

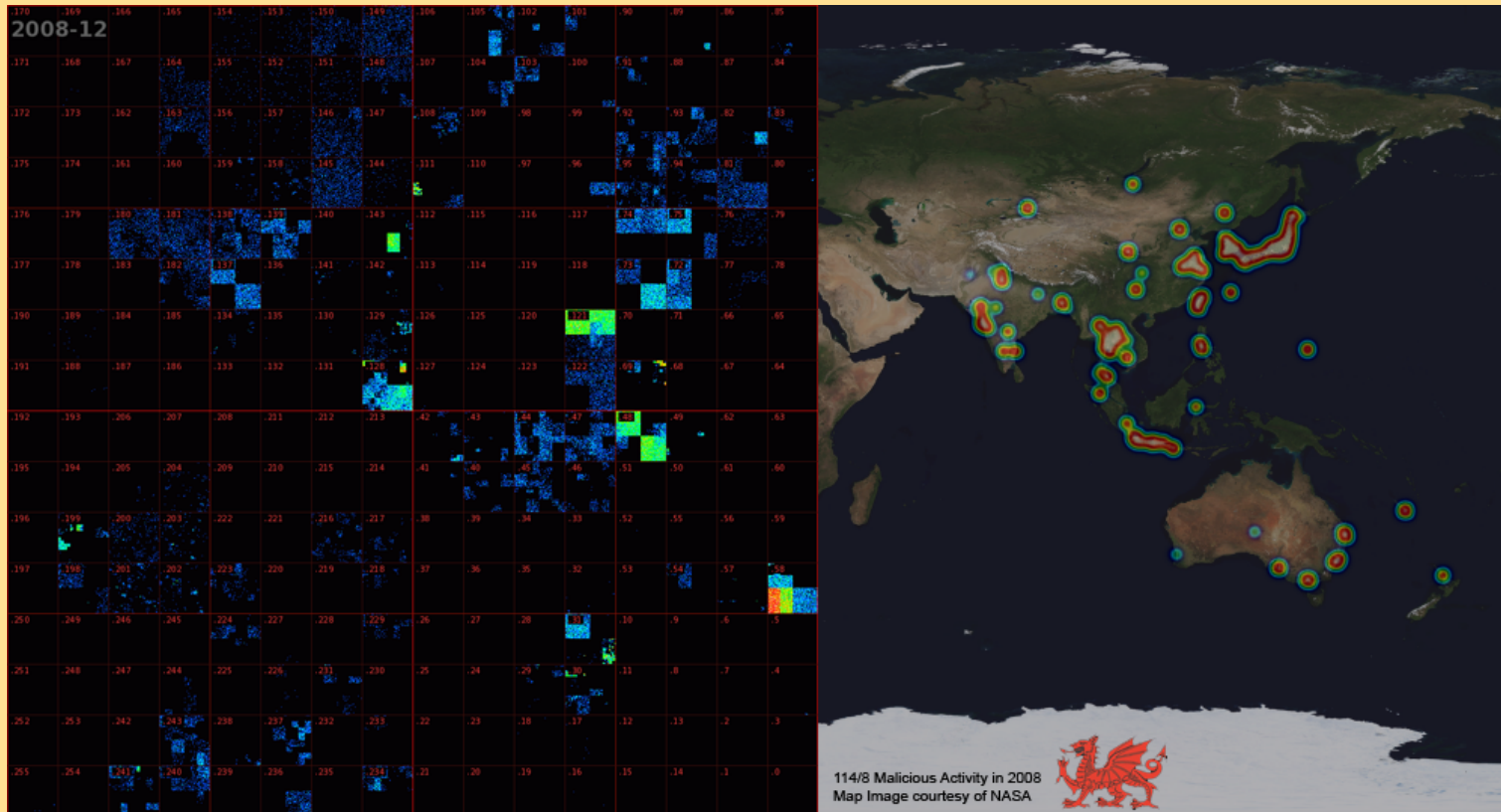
0	1	14	15	16	19 →
3	2	13	12	17	18
4	7	8	11		
5	6	9	10		



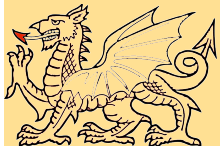
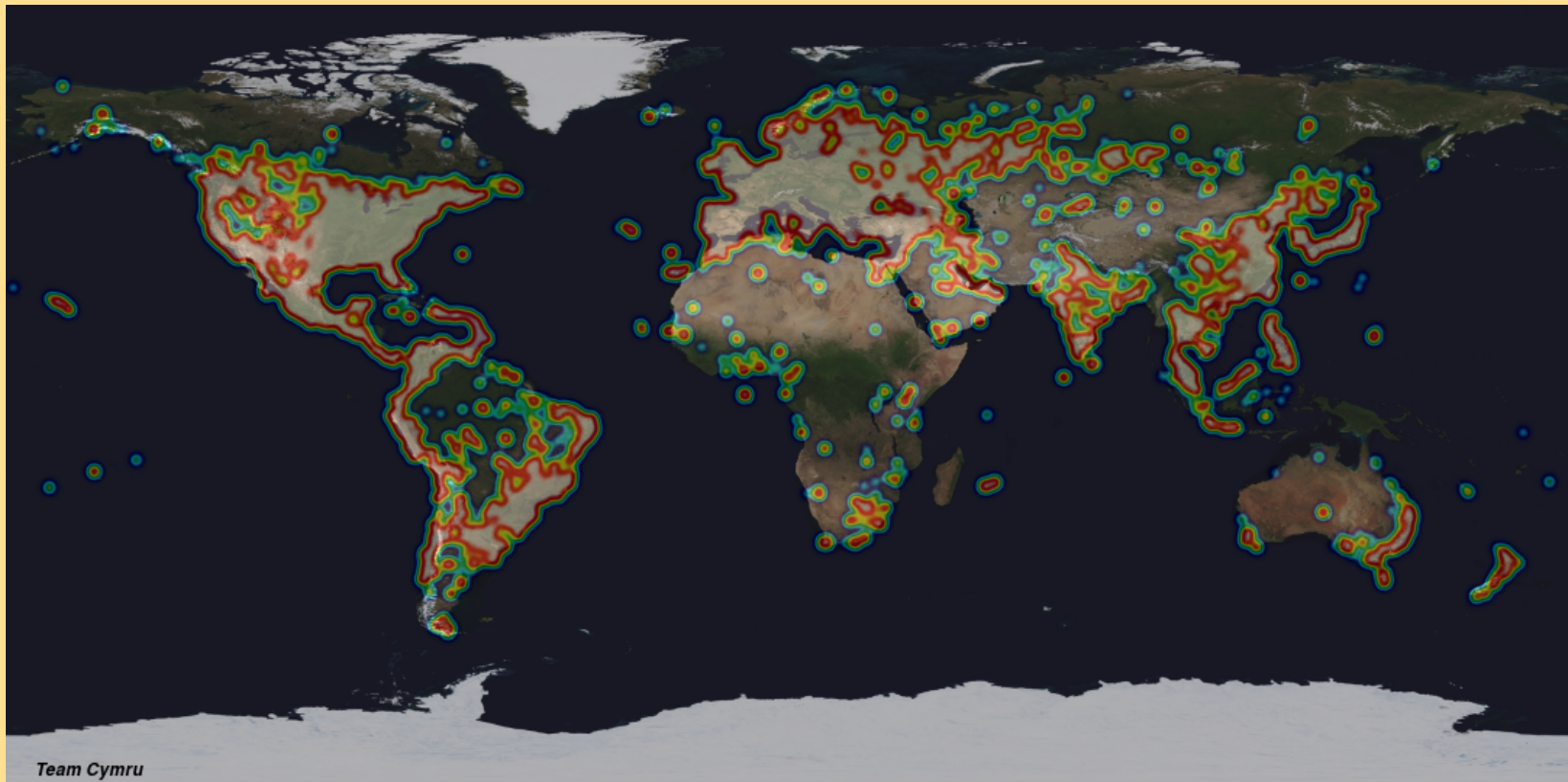
History of 114.0.0.0/8



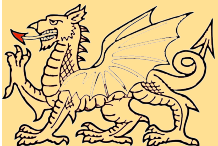
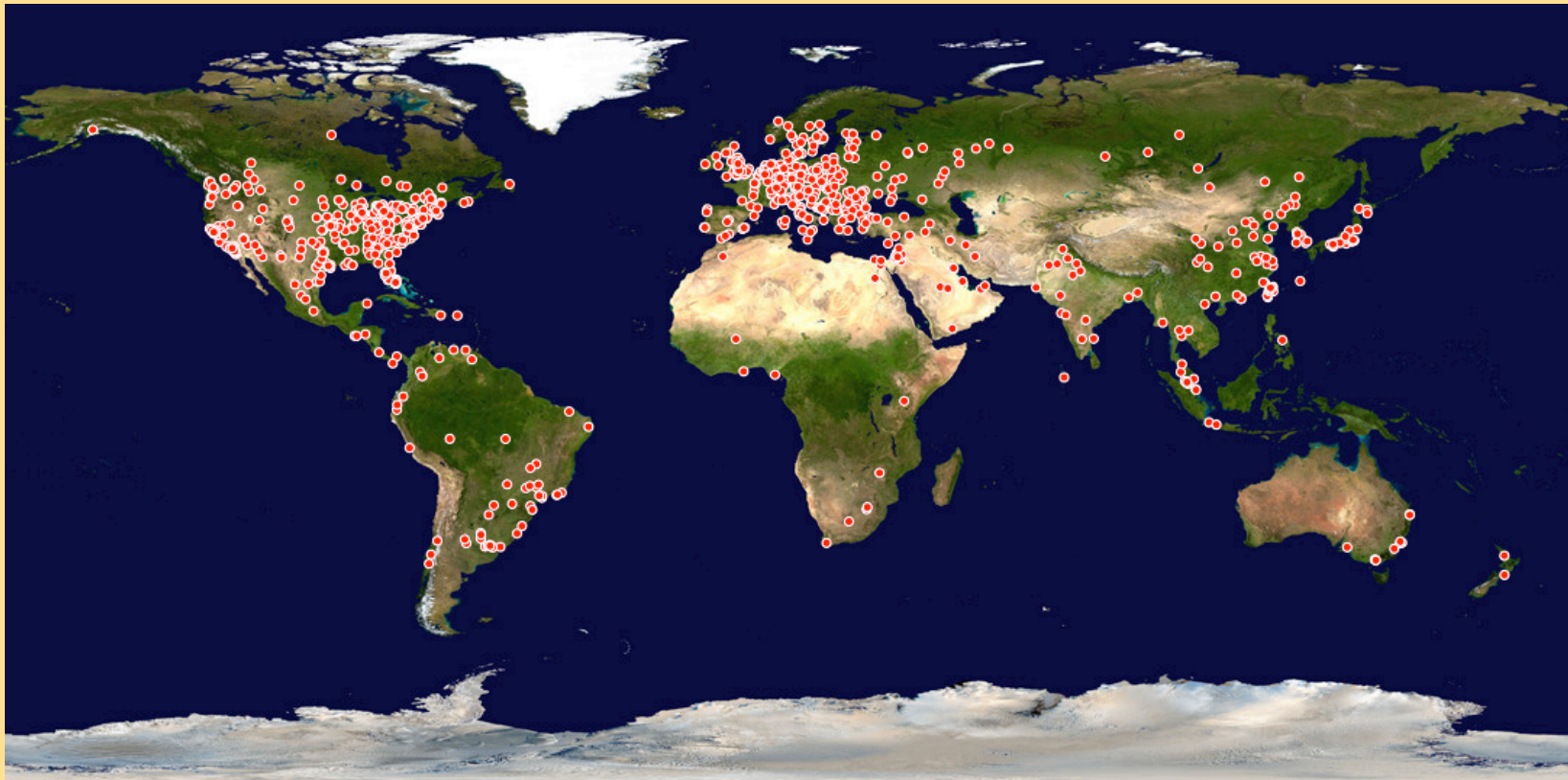
History of 114.0.0.0/8



Bots and Botnets

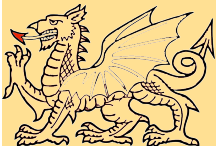


Bots and Botnets (C&Cs)

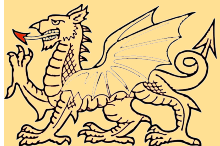
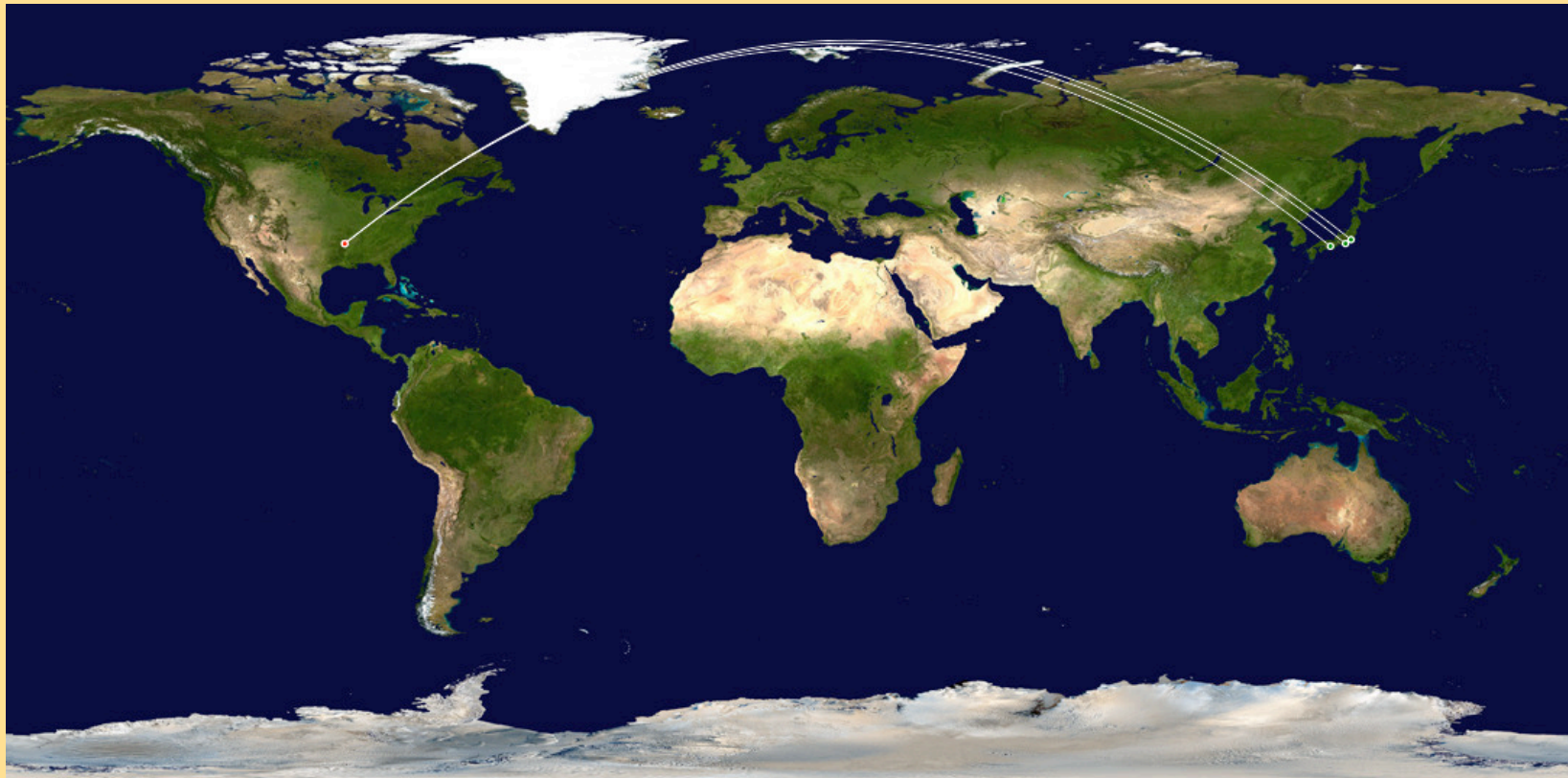


Bots and Botnets (C&Cs)

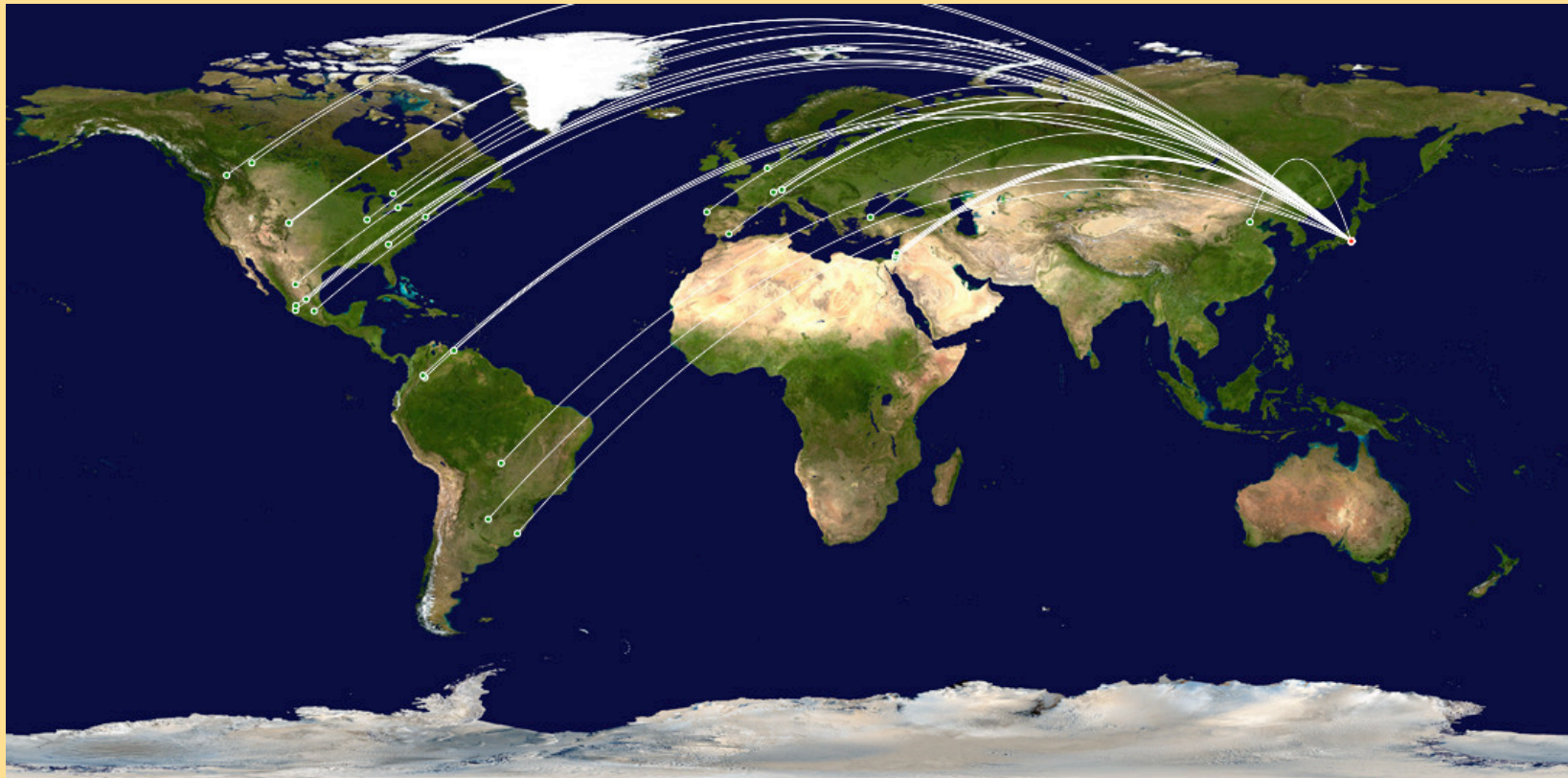
Country	# of Botnet Controllers (2008)
United States	1,941
Germany	294
Korea, Republic of	212
United Kingdom	159
Canada	138
China	134
Russian Federation	104



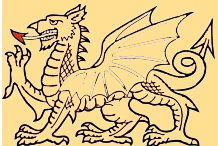
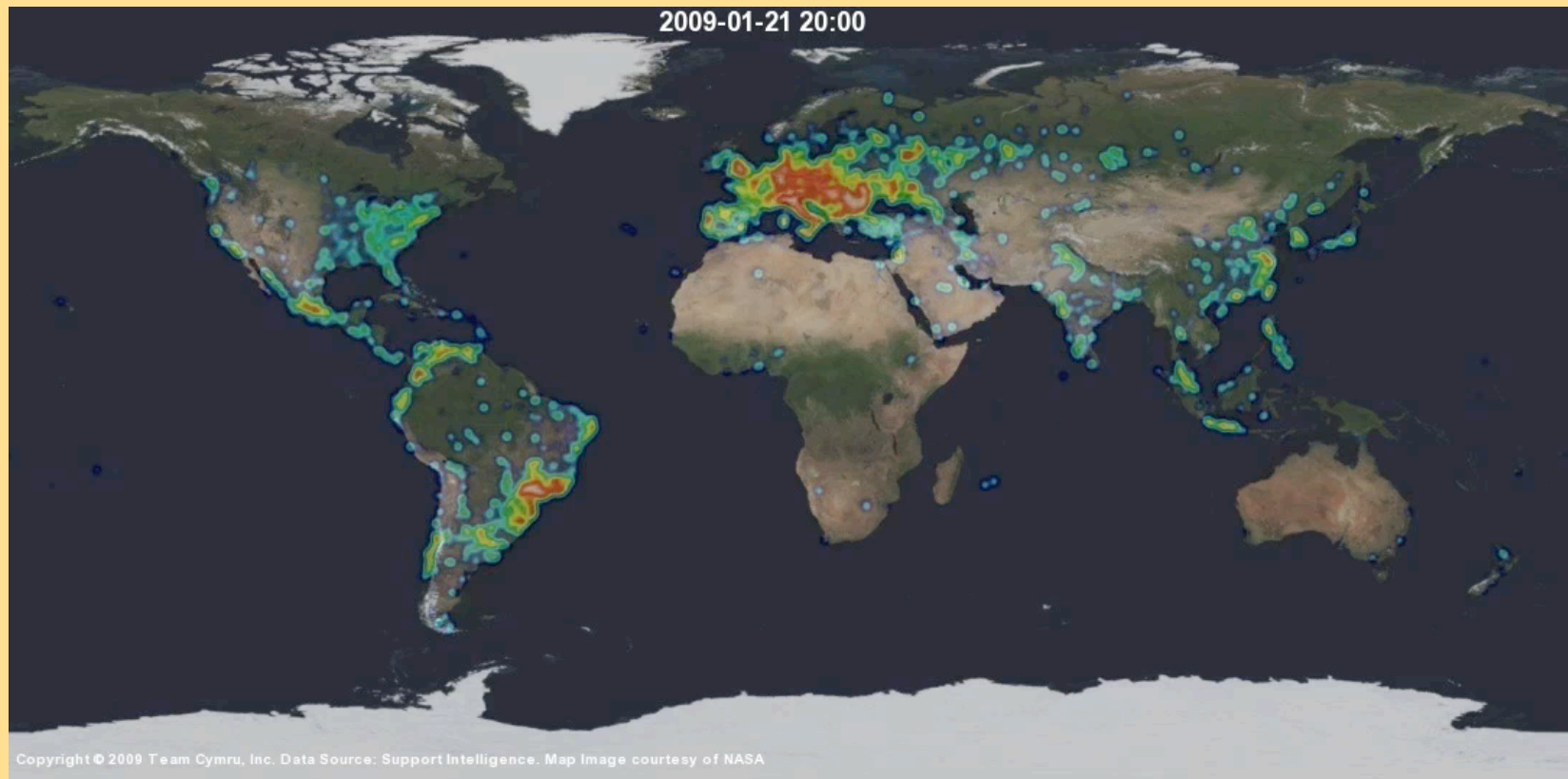
Target Japan! (Bots)



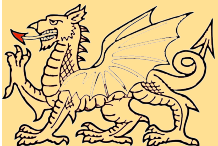
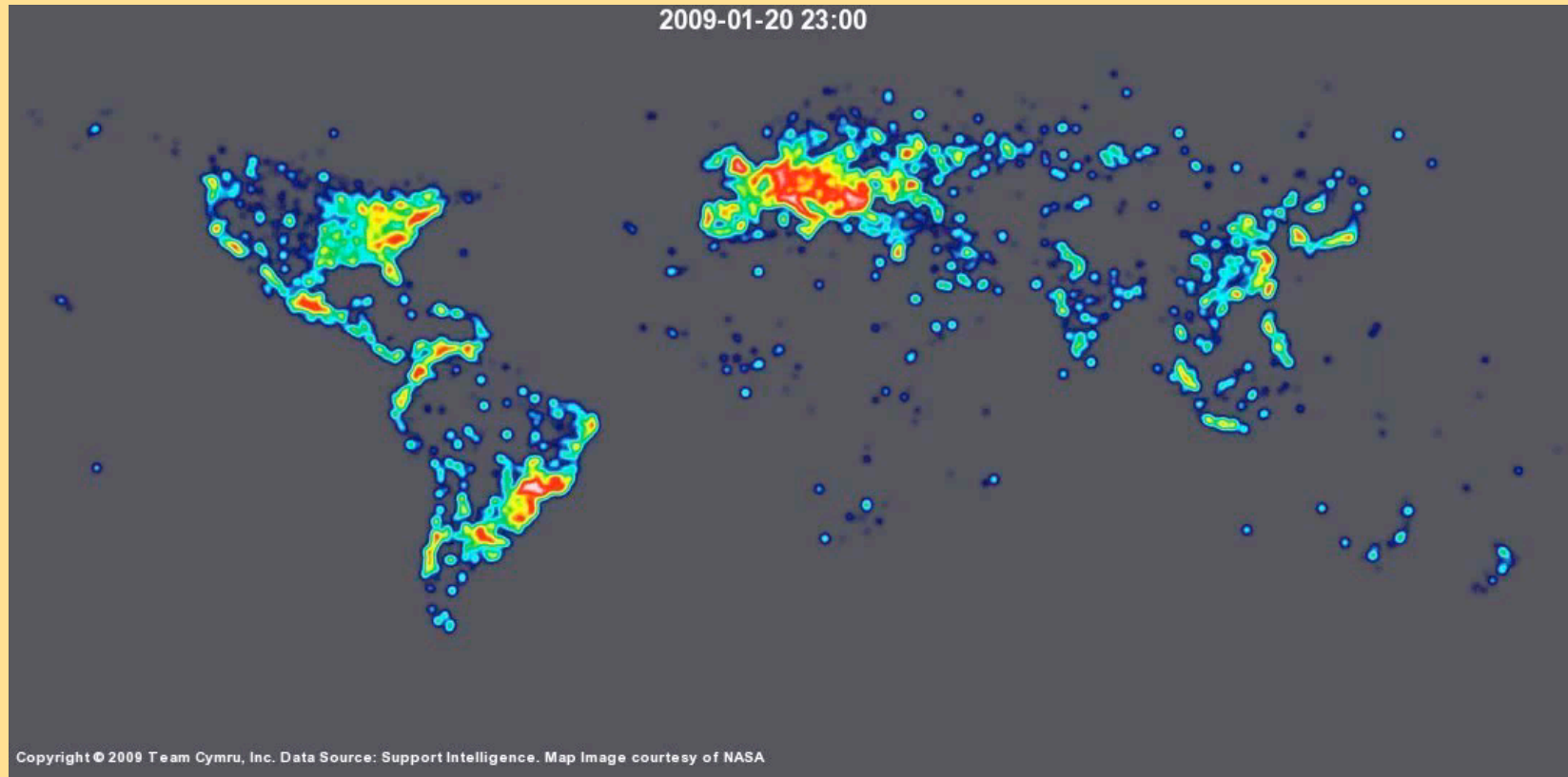
Target Japan! (C&Cs)



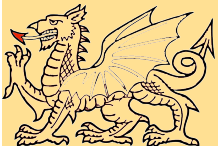
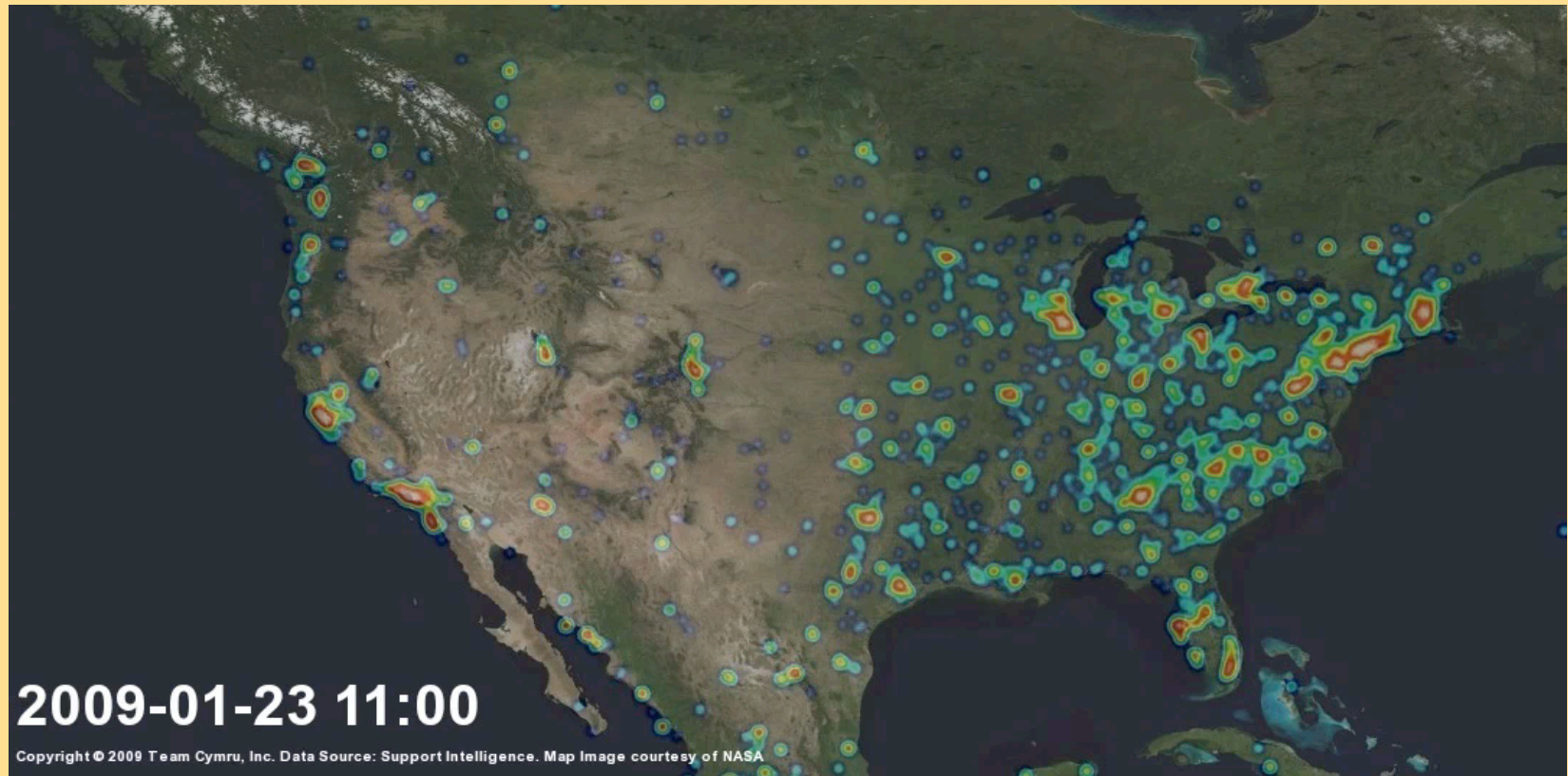
Conficker / Downadup



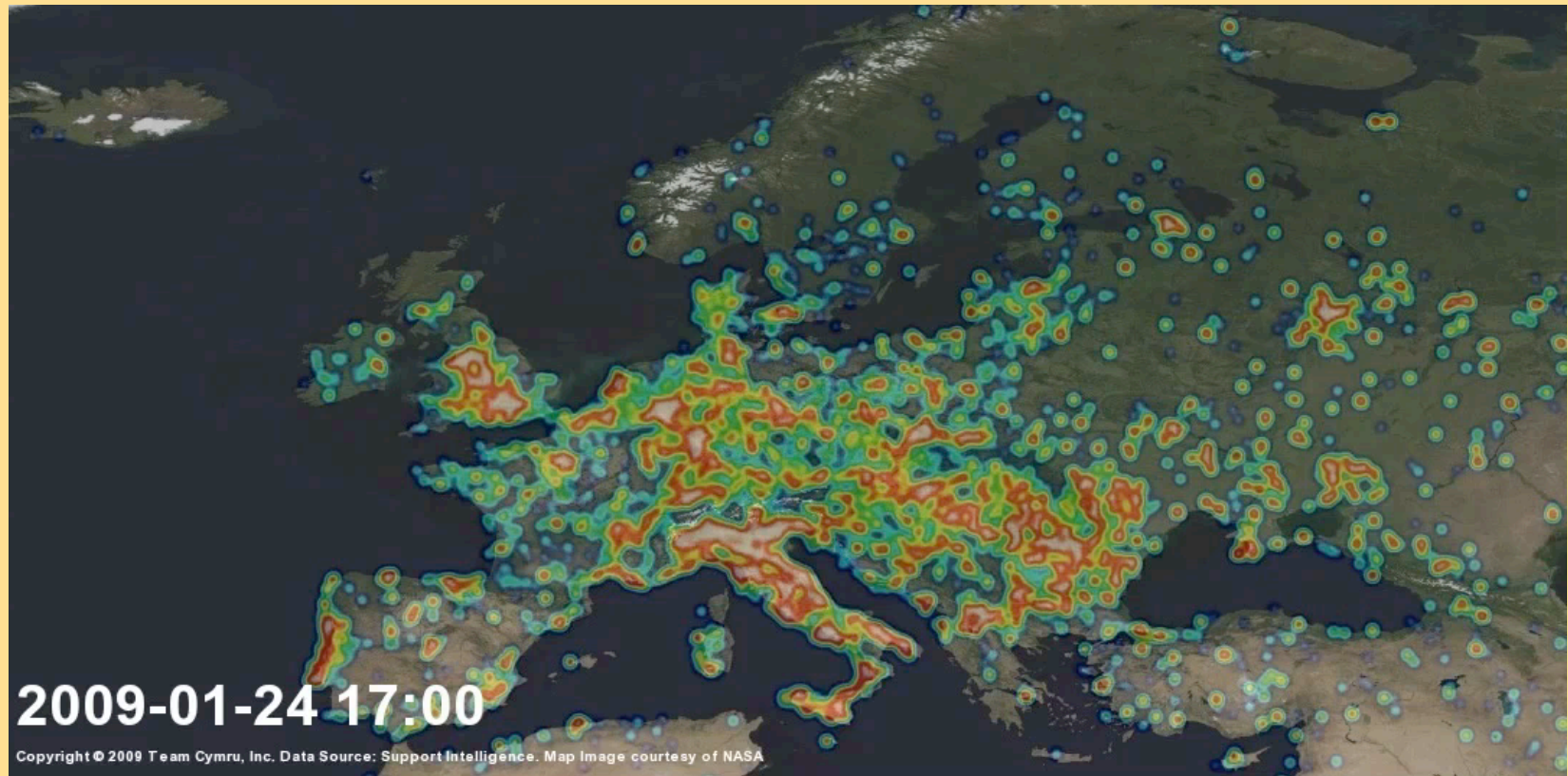
Conficker (No Map)



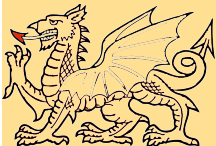
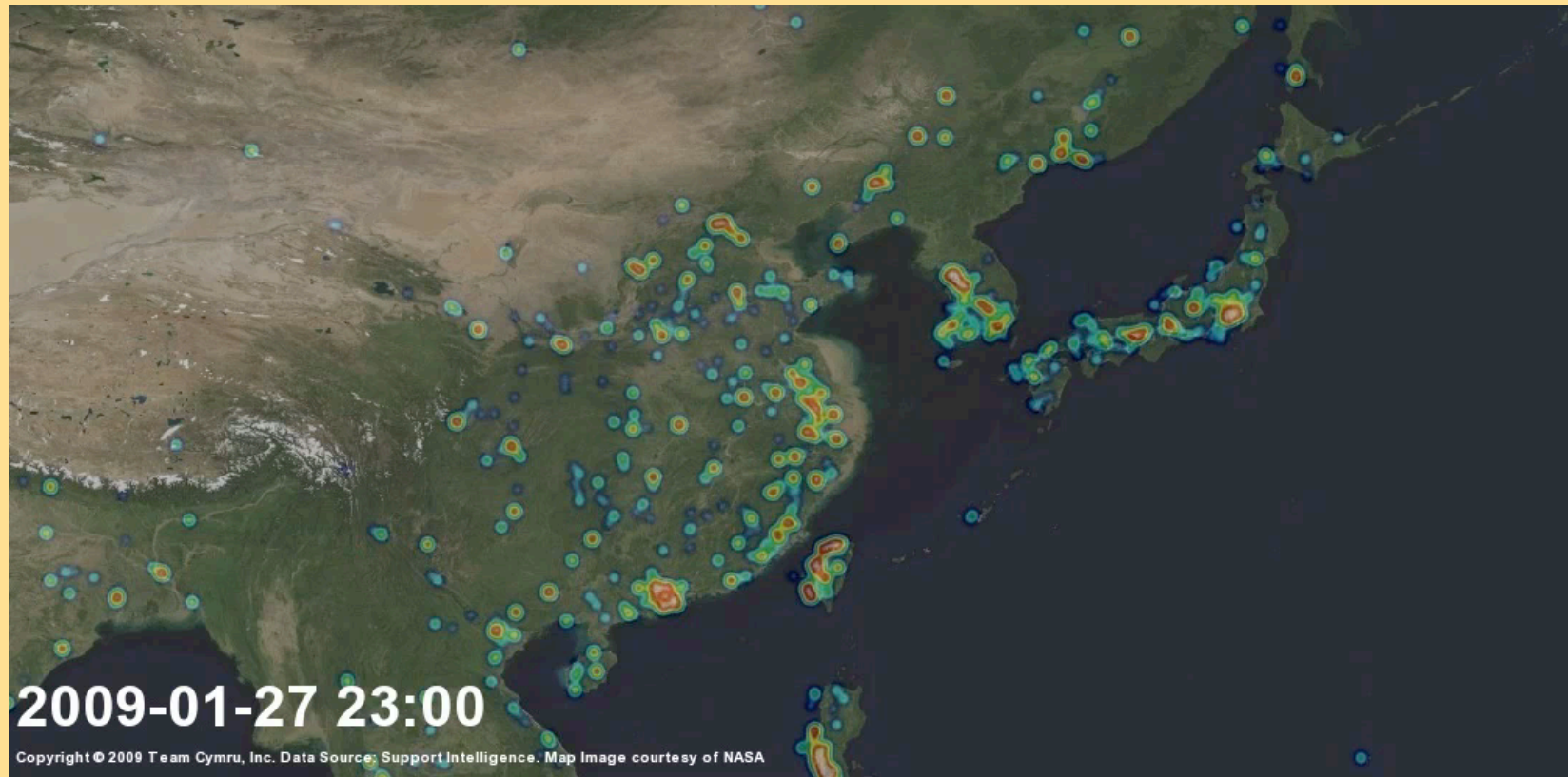
Conficker (North America)



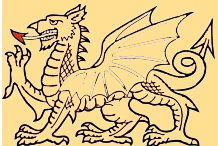
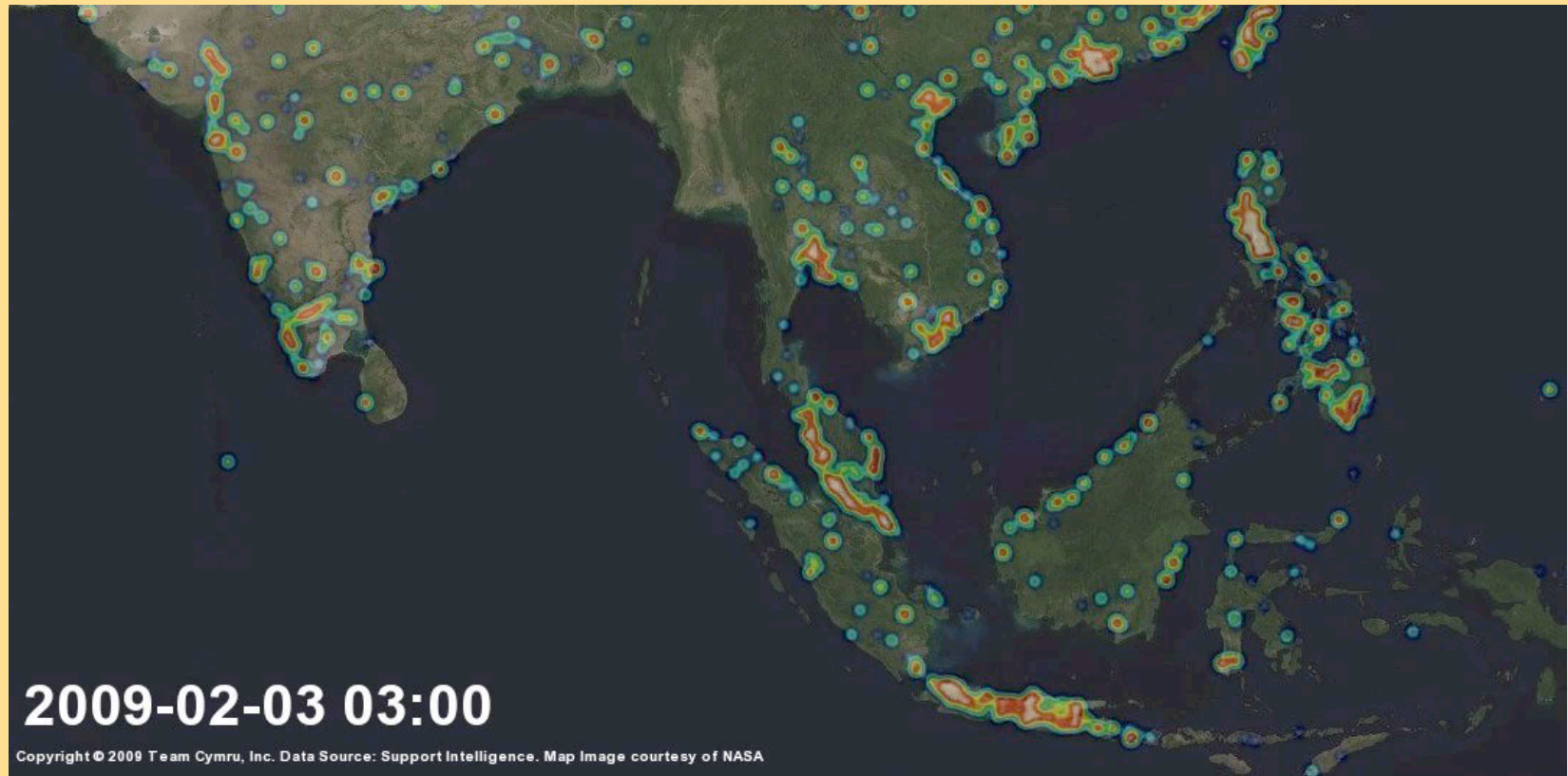
Conficker (Europe)



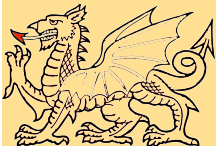
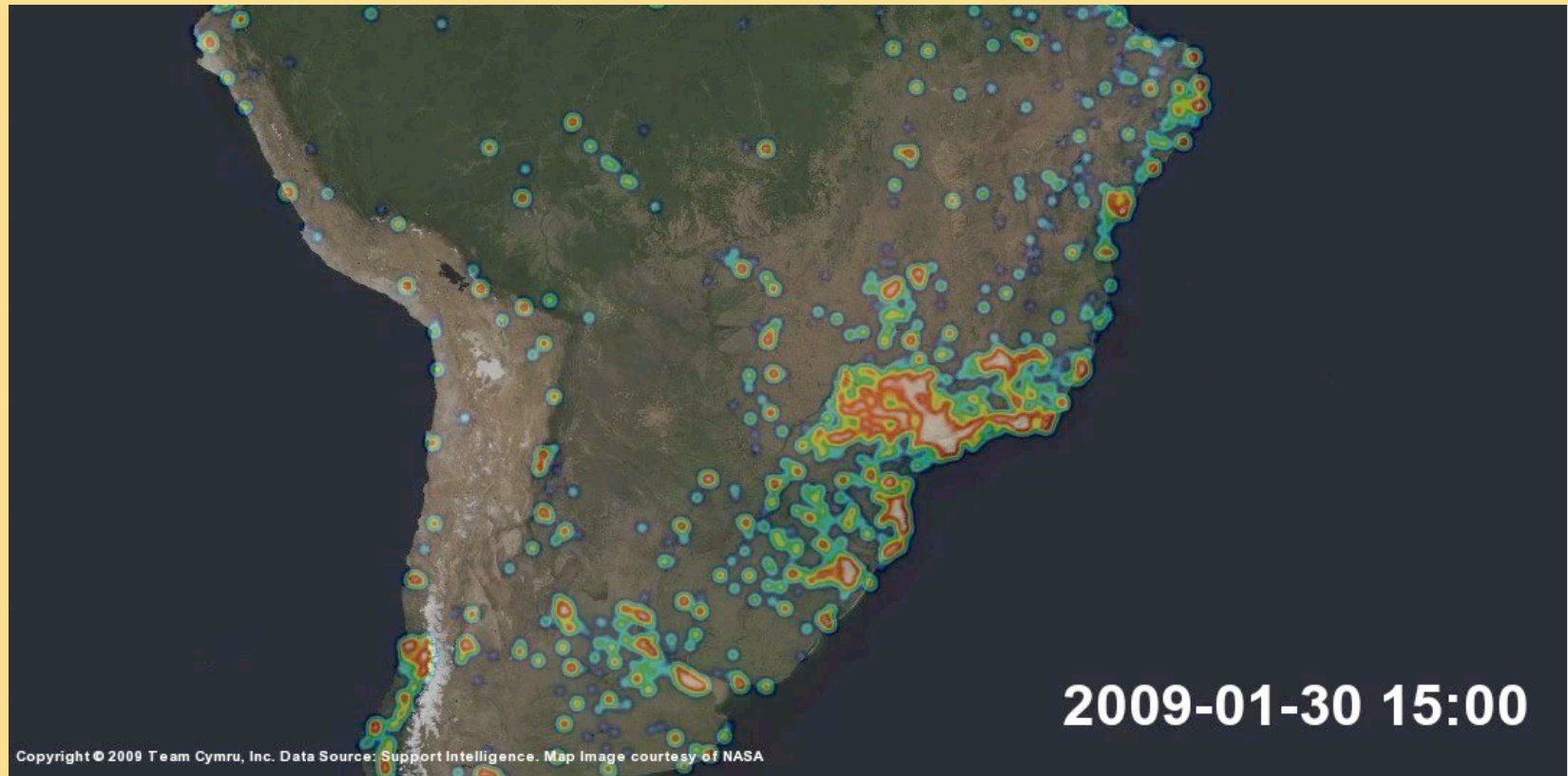
Conficker (North Asia)



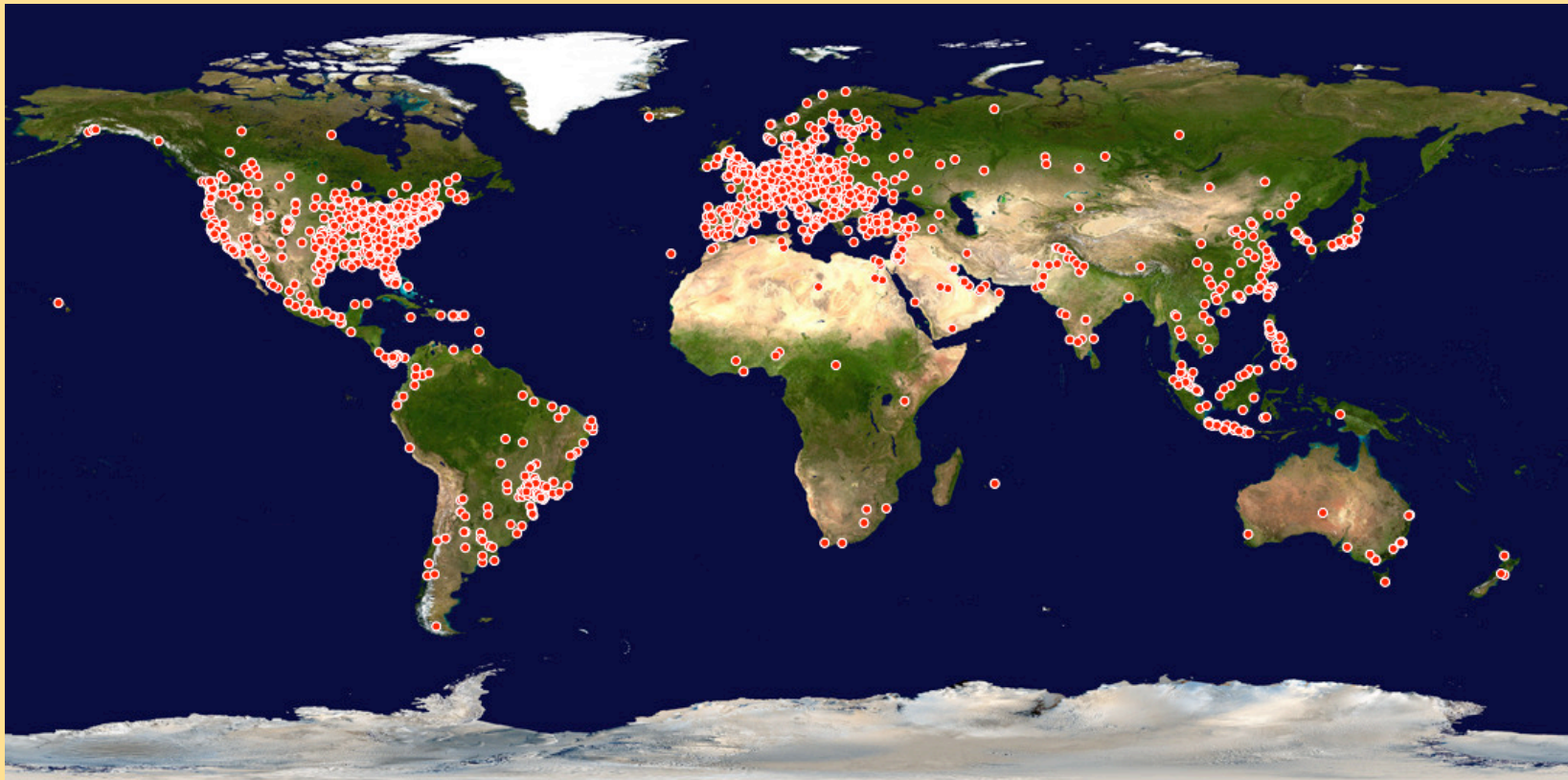
Conficker (South Asia)



Conficker (South America)

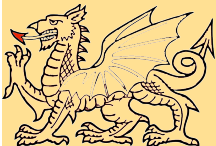


DDoS Attacks in 2008



DDoS Attacks in Japan 2008

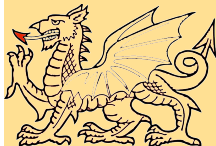
- 118 total attacks
- Top target cities
 - Tokyo: 65 attacks
 - Osaka: 14 attacks
- Top target networks
 - AS17676 GIGAINFRA BB Tech. (29 attacks)
 - AS4713 NTT Communications (17 attacks)
 - AS17506 UCOM Corporation (12 attacks)



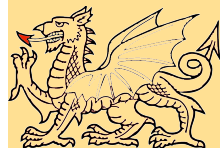


DNS Amplifier attack

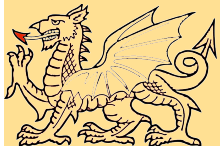
DDoS attack uses over 1 million open recursive servers



A Global Problem...

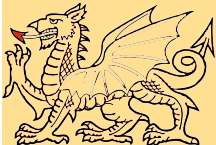


Questions?



Special Thanks

- Support Intelligence (Data)
 - <http://www.support-intelligence.com>
- Maxmind and Quova (GeoIP)
 - <http://www.maxmind.com>
 - <http://www.quova.com>
- NASA Visible Earth
 - <http://visibleearth.nasa.gov>



Contact Info

- deitrich@cymru.com
- www.team-cymru.org
- Team PGP key at
www.cymru.com/teamcymrukey.txt

THANK YOU!

ありがとうございます!

