

# Hurricane Sandy, as seen by RIPE Atlas

---

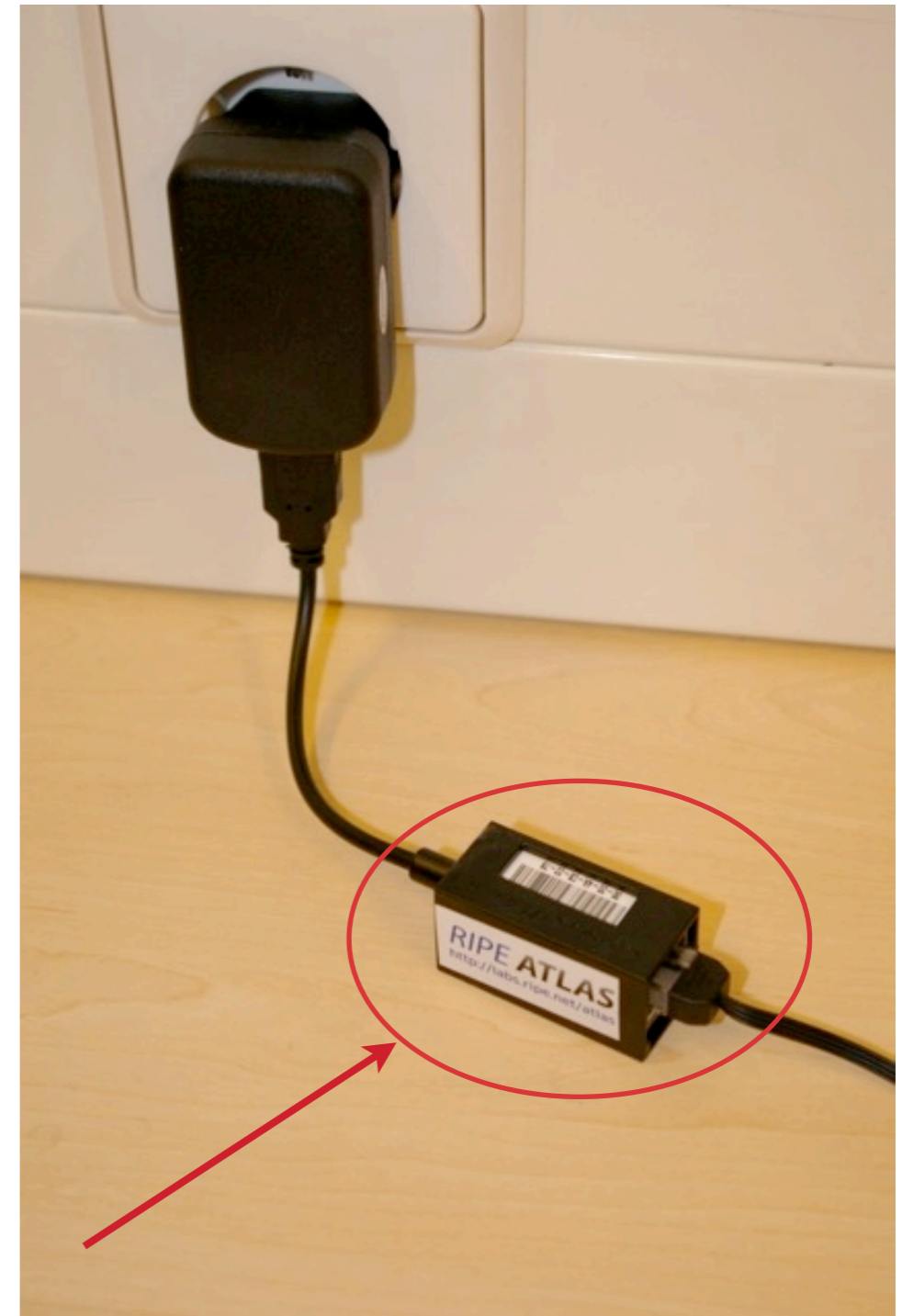
[emile.aben@ripe.net](mailto:emile.aben@ripe.net)

NANOG 57



# RIPE Atlas

- Measuring the Internet
  - For the community
  - By the community
- <https://atlas.ripe.net/>
- <https://labs.ripe.net/atlas>



# 2500+ Hardware Probes Deployed



104 countries  
1202 v4 ASes (2.8%)  
402 v6 ASes (6.1%)

# Measurements

---

- Ping(4/6)
- Traceroute(4/6)
- (DNS/HTTP/SSL)
  
- Towards “fixed” destinations:
  - DNS root servers + RIPE Atlas infrastructure
  
- User Defined Measurements





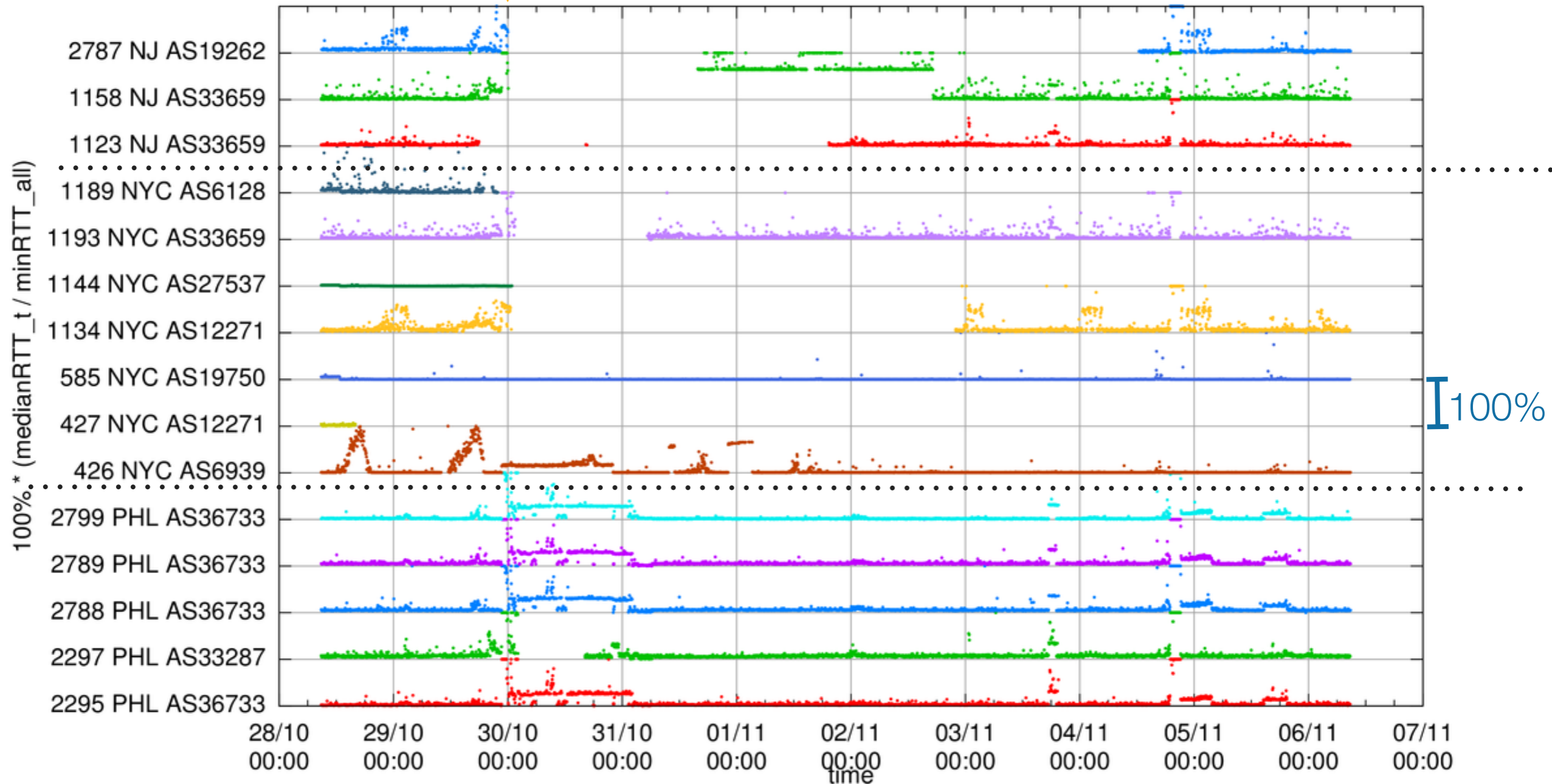
# RIPE Atlas Probes in Affected Area

---

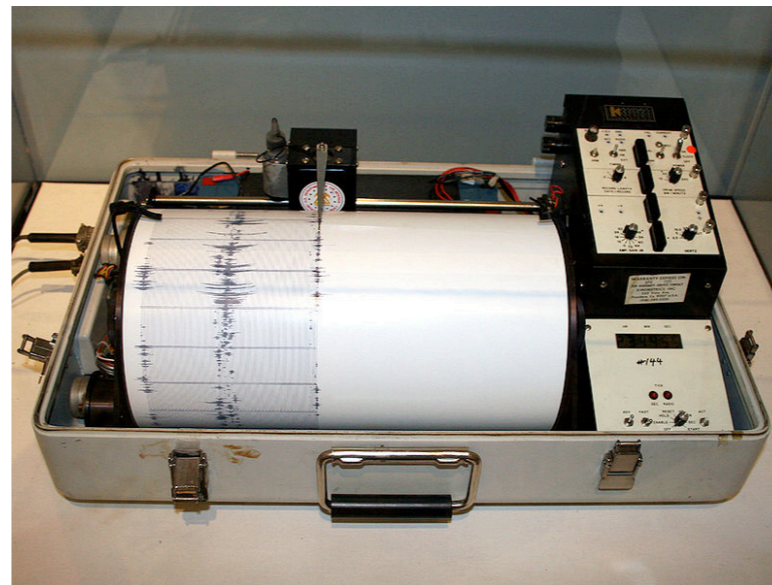
# Vantage Points in Affected Area

Sandy Landfall

Probes to dst 1017, relative rtt trends

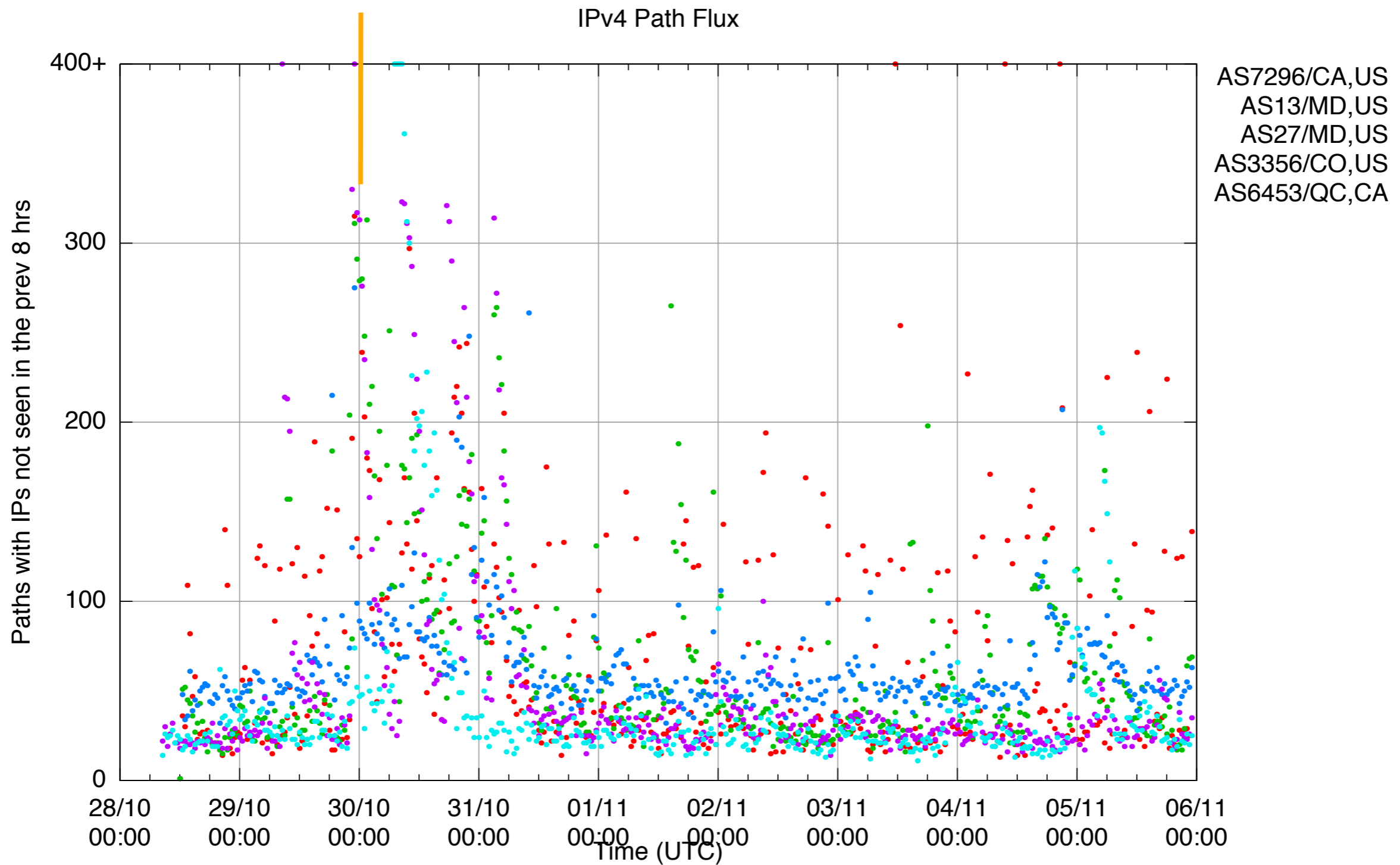


# Path Flux

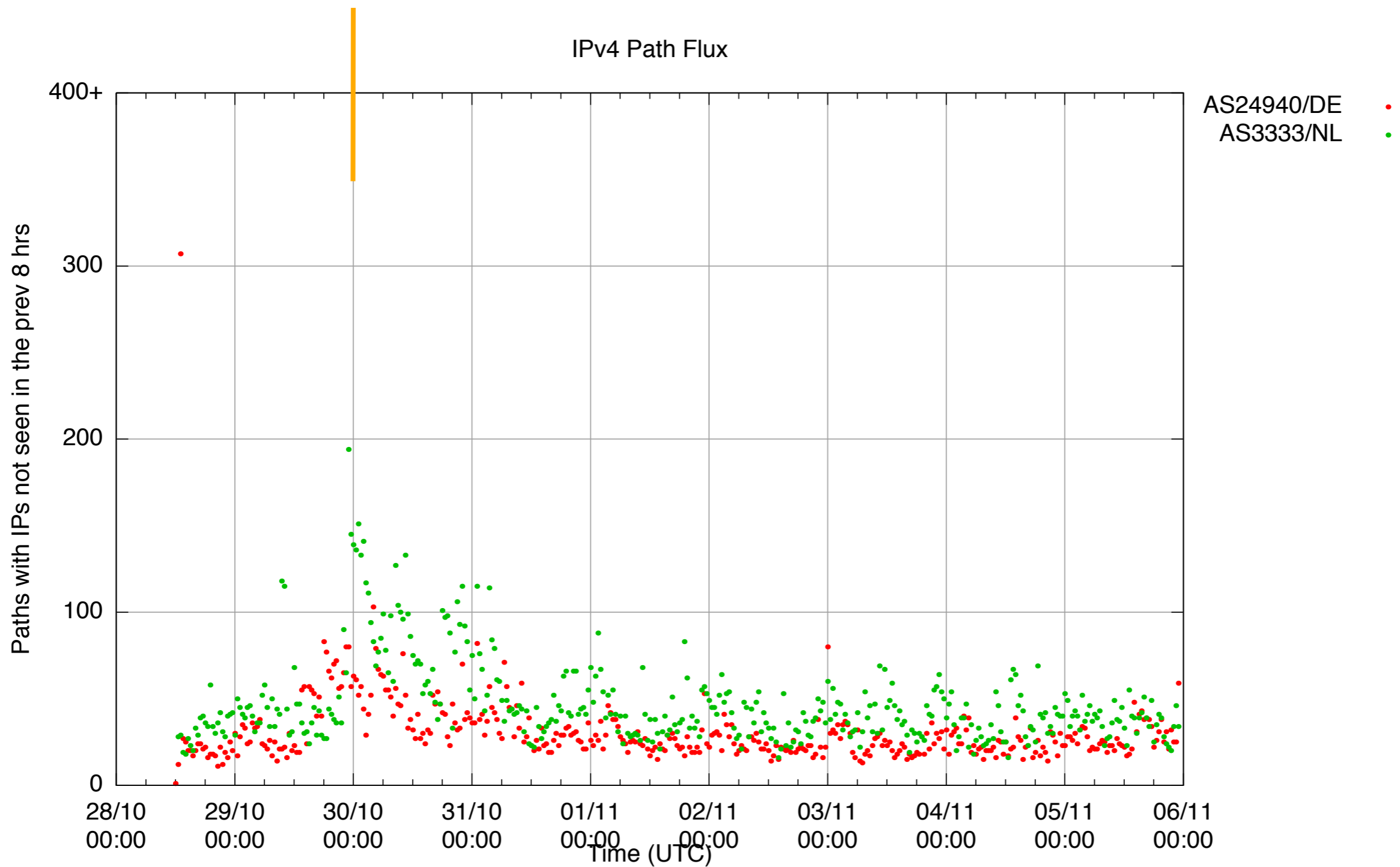




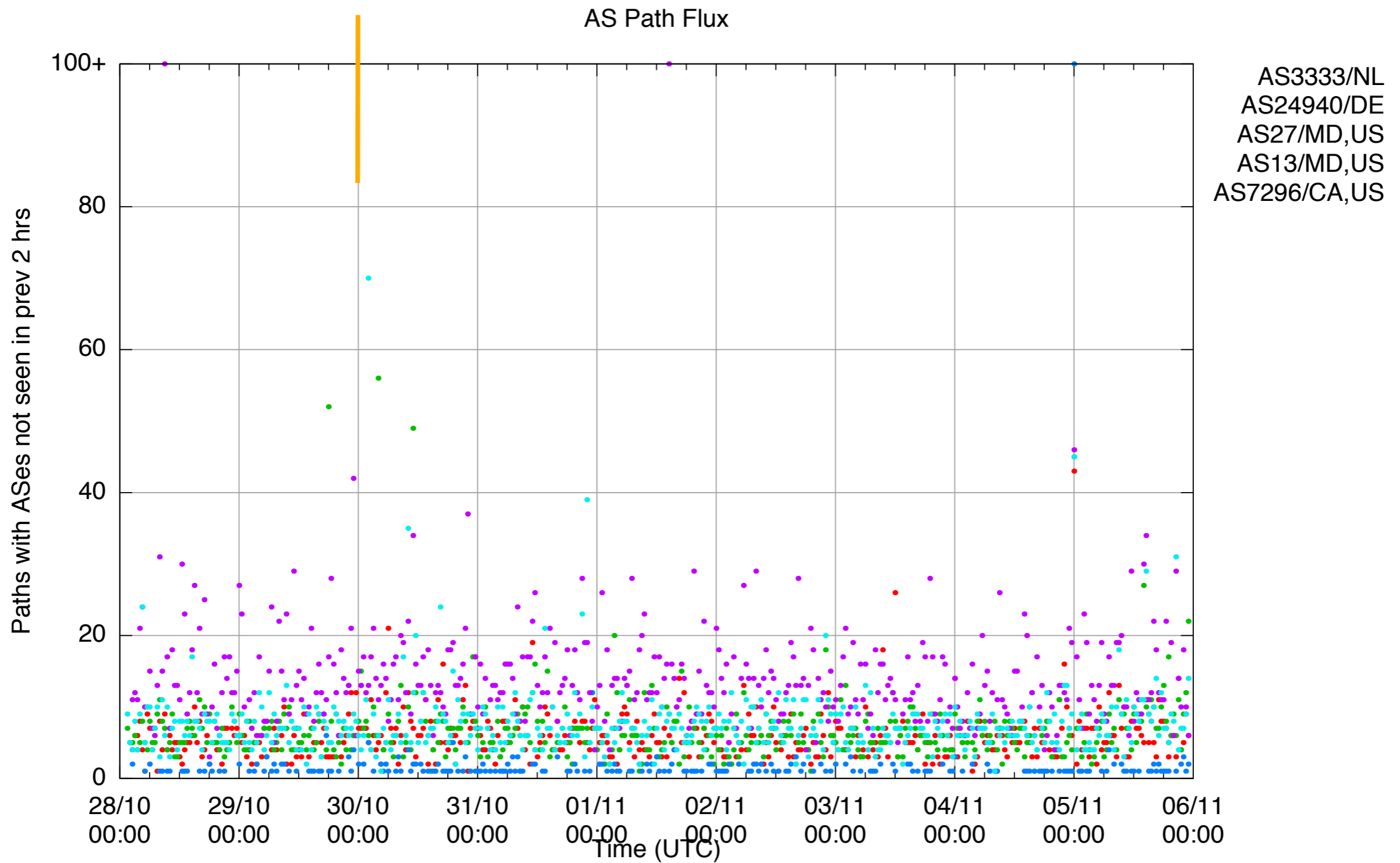
# Path Flux towards North American Targets



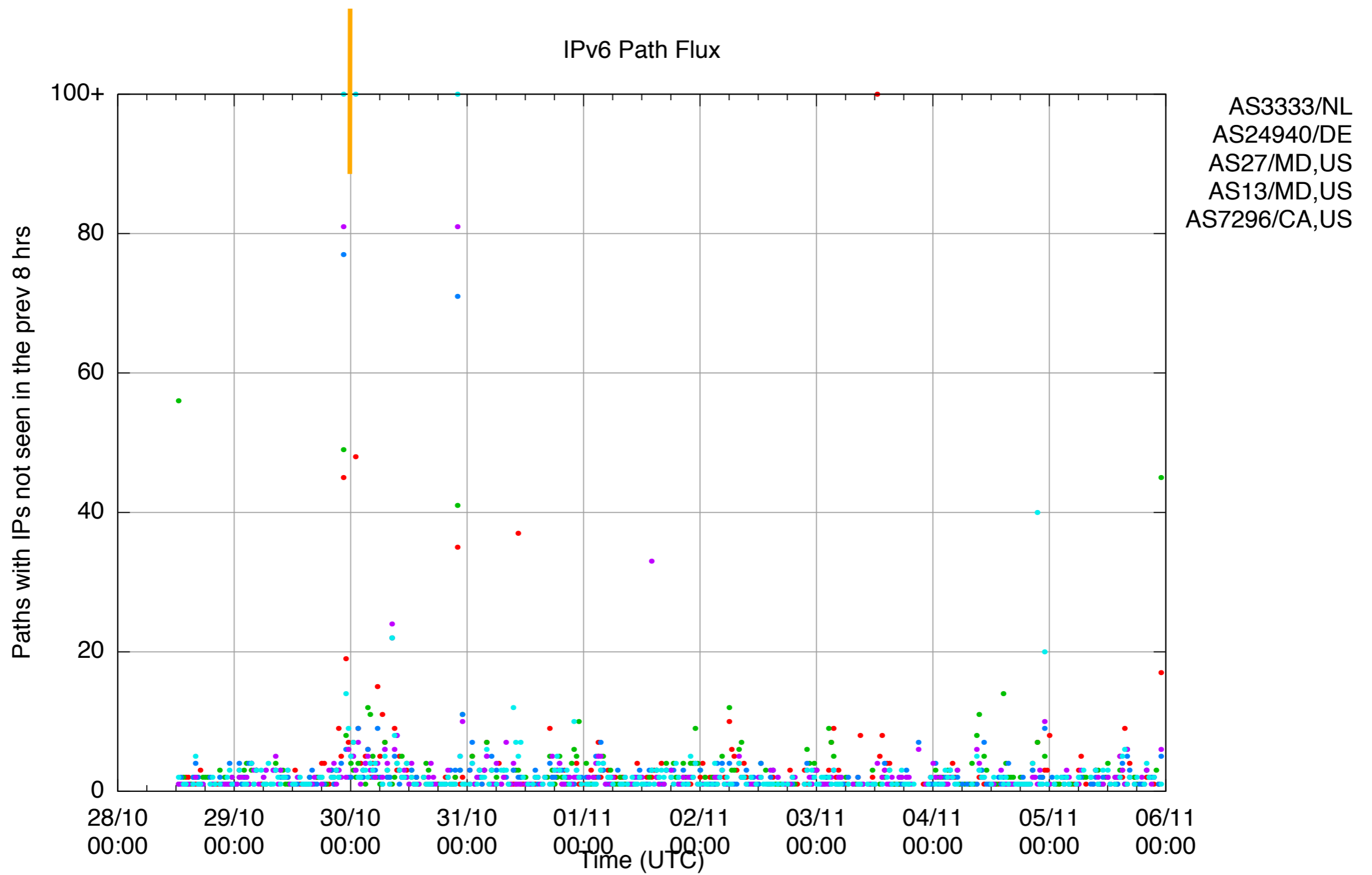
# Path Flux towards EU Targets



# AS Path Flux (IPv4 paths)



# Path Flux (IPv6)





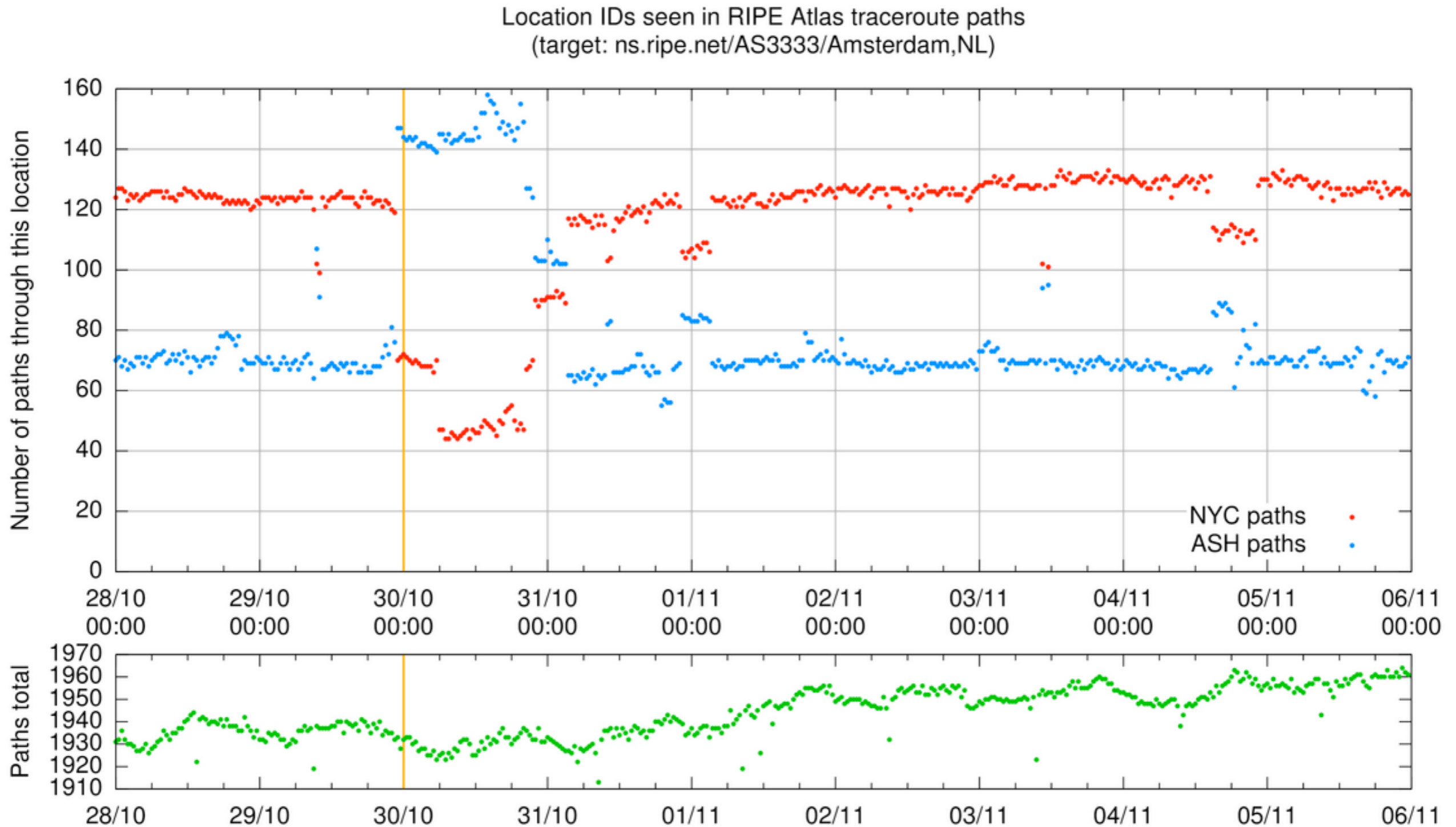
10ff 198.  
b0f98:3080.  
98.51.100.14.  
cb00:13be20  
:19f2:80::1 198  
d:2209:bc:80r  
db8::109b  
51.

# New York-New York

---



# Paths through NYC/ASH to ns.ripe.net

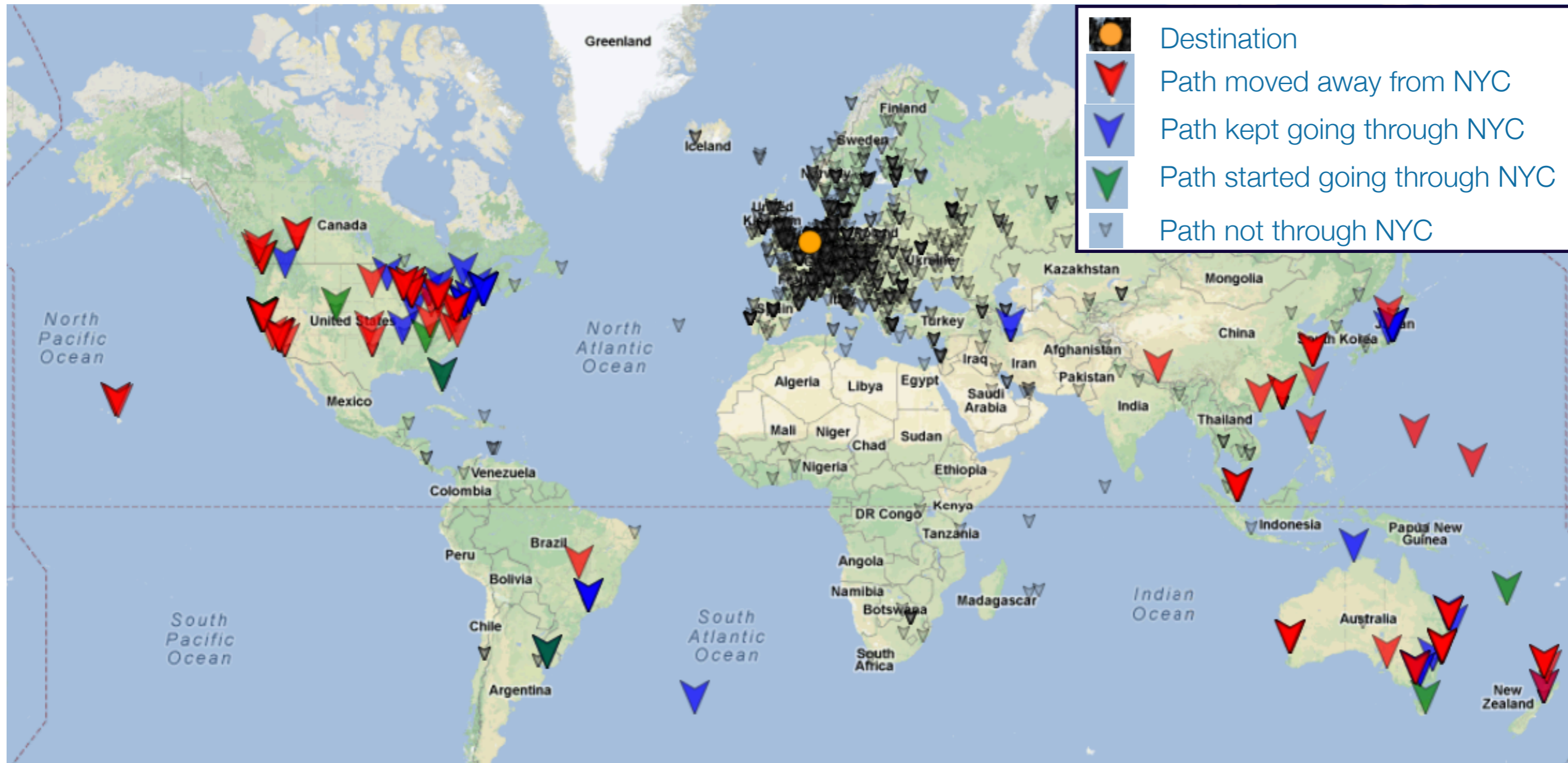




# Compare pre/post Sandy Paths

dst: ns.ripe.net / AS3333 / NL

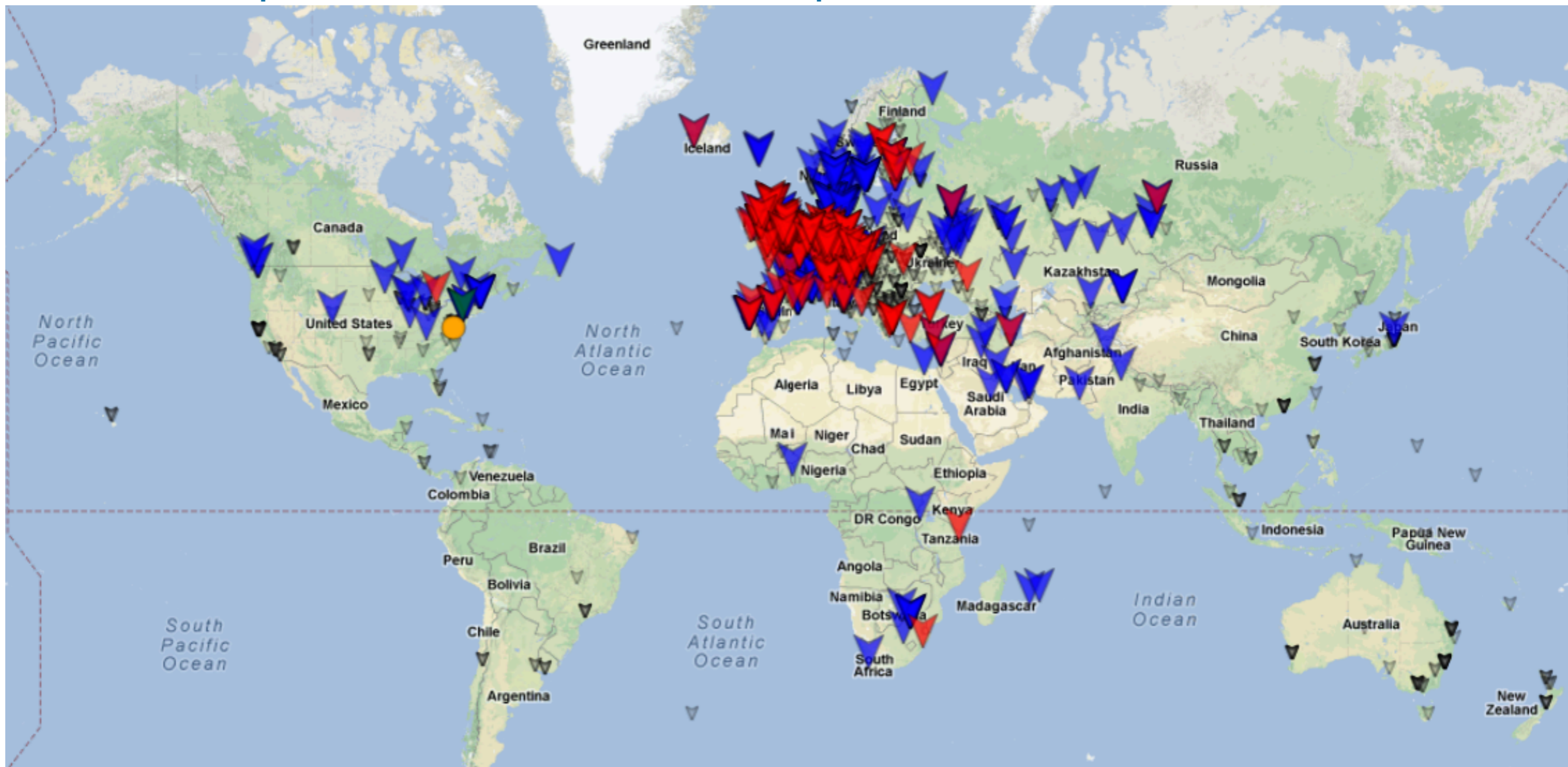
pre: 22:00 UTC vs. post: 09:00 UTC



# Compare pre/post Sandy paths

dst: d-root / AS27 / MD,US

pre: 22:00 UTC vs. post: 09:00 UTC





# Conclusion

---

- For the paths that we measured:
  - Paths were noticeably more unstable on 2012-10-30 (UTC)
  - Paths moved away from NYC, but not completely
- There will be a next time (the Mayas were wrong)
  - Next time: ???
- How can RIPE Atlas serve you best?

# Questions?



<https://labs.ripe.net/sandy-2012>

