More News does not Mean Effective Policy Perception and Impact of US Cyber Policies

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Introduction

- Cyber-attacks aimed at breaking into networks, stealing data and bringing websites down have become an every-day phenomenon
- Cyber Policies have also stayed in news
- However, the impact of cyber-polices on cyber-attacks in not clear
- Using GDELT news and DDoS attacks data shared by Arbor Networks from June 2013 to Mar 2016, we do a intervention analysis to measure the impact of cyber policy changes
- We also summarize the news, tone and attacks trend

Methodology

- Get cyber-news trend from GDELT
- Get trend of sentiment in cyber-news from GDELT
- Find major cyber events from cyber-news trend
- Filter policy related events from cyber events
- Get trend of cyber-attacks from www.digitalattackmap.com
- Find polices that made more noise
- Use intervention analysis to measure the impact of major cyber policy events
- Find polices that made an impact

Results
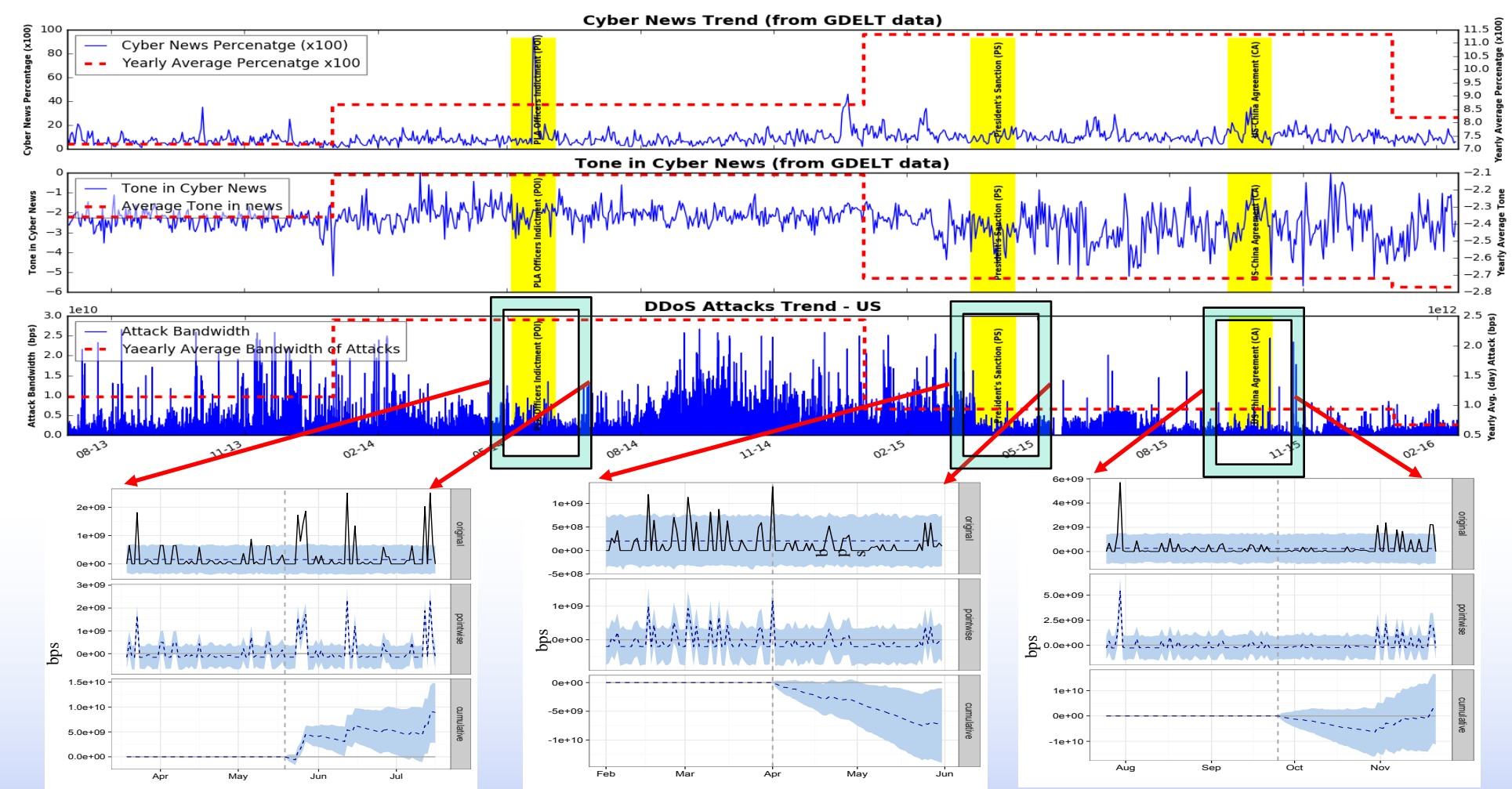
Indictment of 5 PLA Officers
- Attacks bandwidth showed an increase of +99%
- The effect of intervention was statistically significant (p = 0.003)

President Authorizes Sanction
- Attacks bandwidth showed a decrease of 59%
- The effect of intervention was statistically significant (p = 0.012)

US China Cyber Agreement
- Attacks bandwidth showed an increase of +19%
- The effect of intervention was not statistically significant (p = 0.356)

Conclusions and Discussion

- There is a growing discussion of cyber issues
- And growing negative sentiment in cyber news
- But there is a decrease in actual DDoS attacks
- PLA officers indictment made most noise
- President's sanction made least noise

- PLA officers indictment lead to an eventual increase in attacks (99%) in four months time frame
- President's sanction to prosecute malicious cyber actors decreased cyber-attacks by 59%
- US-China cyber agreement had no significant impact