

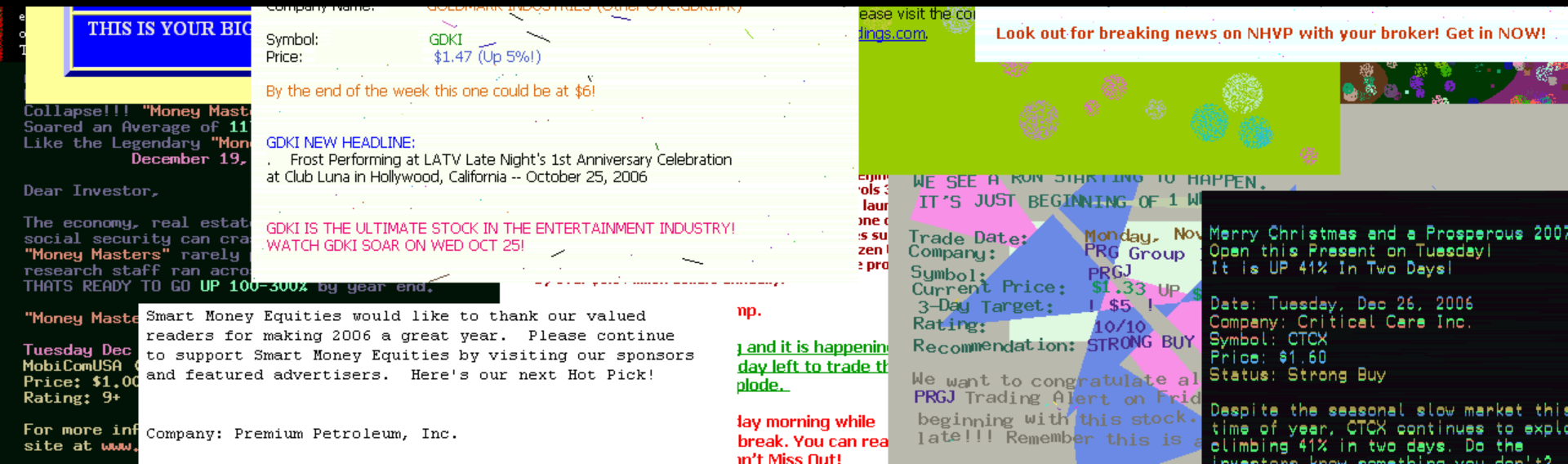
Stealing Profits from Stock Market Spammers





or:

How I Learned to Stop Worrying and Love the Spam



Who were we?

- Grant Jordan & Kyle Vogt
- MIT students with too much free time
- Lots of ridiculous projects
- …like safe cracking.



Who are we **NOT**?



- Stock Market Experts
- Spammers
- Get Rich Quick Scammers

Spoiler Alert:

- Everything will be seen through a soda straw.
- It's all from our point of view at the time.
- We couldn't see the forces behind anything.
- Lots of guesses. Lots of hypotheticals.

- Moral of the story:
  A lot can be determined *without* the underlying information. It's all about how you look at the information that everyone already has.

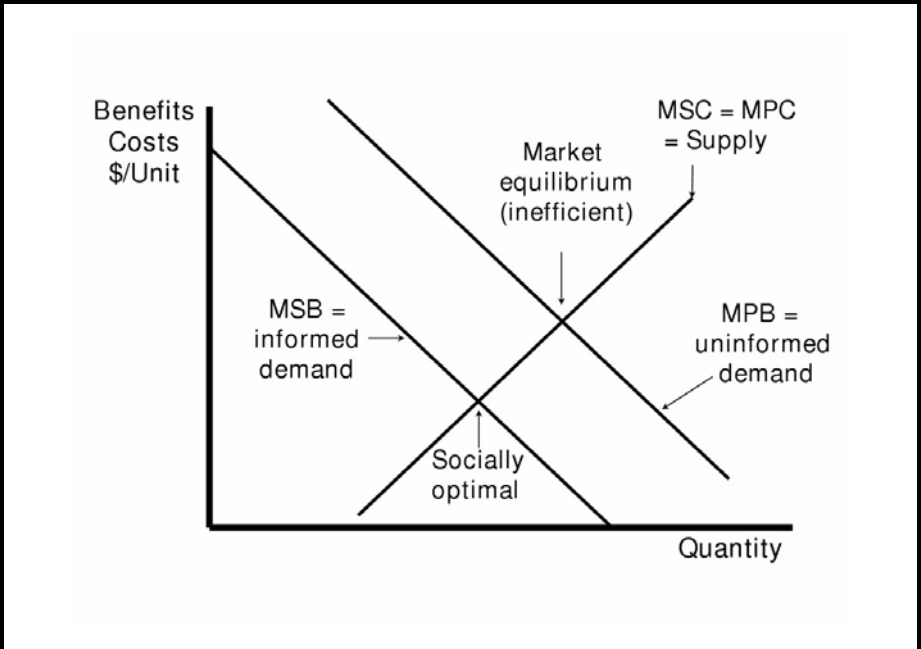
How it all started…

October 2006



- **Kyle:** “There must be a way to make money off all this spam trying to sell stocks!”
- **Grant:** “You’re an idiot.”

Why Kyle must have been wrong…



- Profit is derived from asymmetric information.
  - "I know something that you don't!"
- If everyone knows, it's already priced-in.

- But *everyone* gets the spam!
- What do we know that others don’t?

But first…

What is this spam trying to do?



Phase 1 Phase 2 Phase 3

Send Stock Spam

?

Profit!



Anatomy of a “Pump and Dump”



“Fear and Greed in the 24-hour Economy” – Richard Minsky

Anatomy of a “Pump and Dump”



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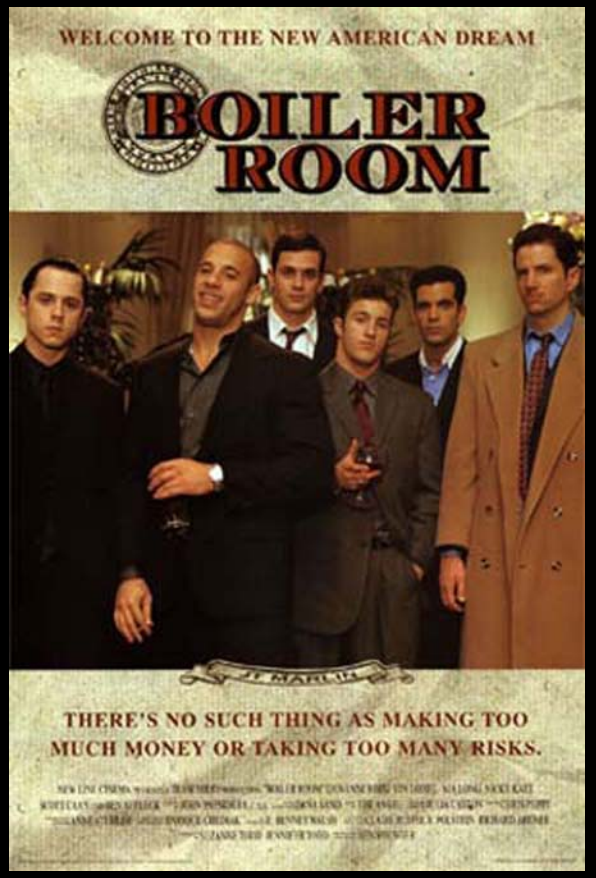
“Fear and Greed in the 24-hour Economy” – Richard Minsky

Pump & Dump

- “Touting” a stock
- The concept is old
  - Word of mouth
  - Boiler rooms
  - Forums
- Spam!
  - Provides a much wider audience at low cost.



Pump & Dump

- Profits determined by when the tout sells out.
- Losses for suckers determined by how late they bought in, and when they sell out again.
  - Late-comers get crushed!

What kind of stocks are these?

- “Penny Stocks”
- “Over the Counter” (OTC)
  - Not traded on a major exchange.
    - (OTC/BB, Pink Sheets)
  - Thinly Traded: Near zero volume most days.
  - High Volatility: Since price is so low (often $1/share), even small changes in price can produce huge % change.

- You could spam all you wanted about a NYSE stock, but your increased demand would likely be nothing against normal trading volume.

IT IS VERY ILLEGAL!

(and a real dick move)

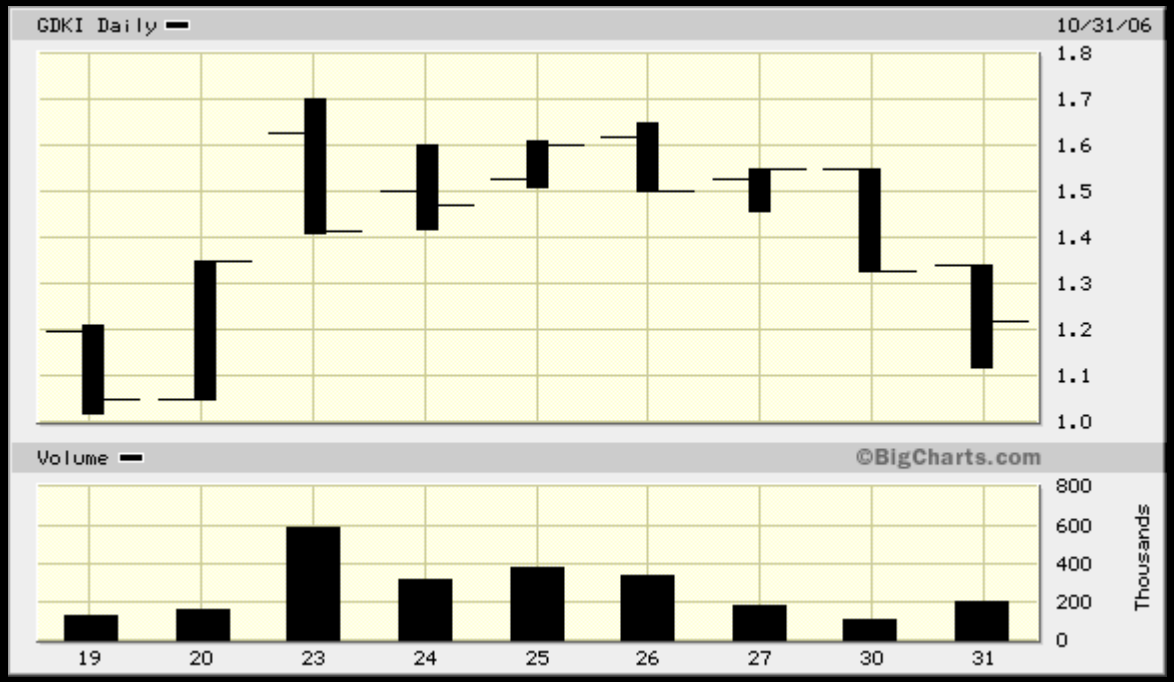
- All changes in supply and demand of the target stock are artificially generated.

Ok, ok, but really…

Who is dumb enough to buy stock because an email told them to?

Result: Plenty of People

- GDKI – Goldmark Industries – 10/20/06
- 60% spike Mon->Fri
- Over 600k shares (possibly >$250k profit!)



Actually… that was small potatoes…

The Bigger Game

(Two Months Later)

- GDKI – 12/22/06
- 300% increase over 5 days
- Over 10M shares (possibly >$30M profit!)



But wait…

- Not every pick is a winner. (Uh oh.)

- Week 1 - Oct 20-27, 2006
  - 20 stocks touted
  - 3 produce profits
  - GDKI far exceeds others

The Data

- What information do we have?
  - Stock spam. ~1,000 per week.
  - Market data showing result of previous week.

What did other researchers see?
(Hint: Very little)

- Frieder and Zittrain
  - "Spam Works: Evidence from Stock Touts and Corresponding Market Activity"
- Hanke and Hauser
  - "On the Effects of Stock Spam E-mails"

  - Both found correlation between volume of stock spam and price of touted stocks.

- Numerous researchers claimed that by Fall 2006, stock spam was dead.
- How could that be? We were seeing a ton!

Selection Bias!

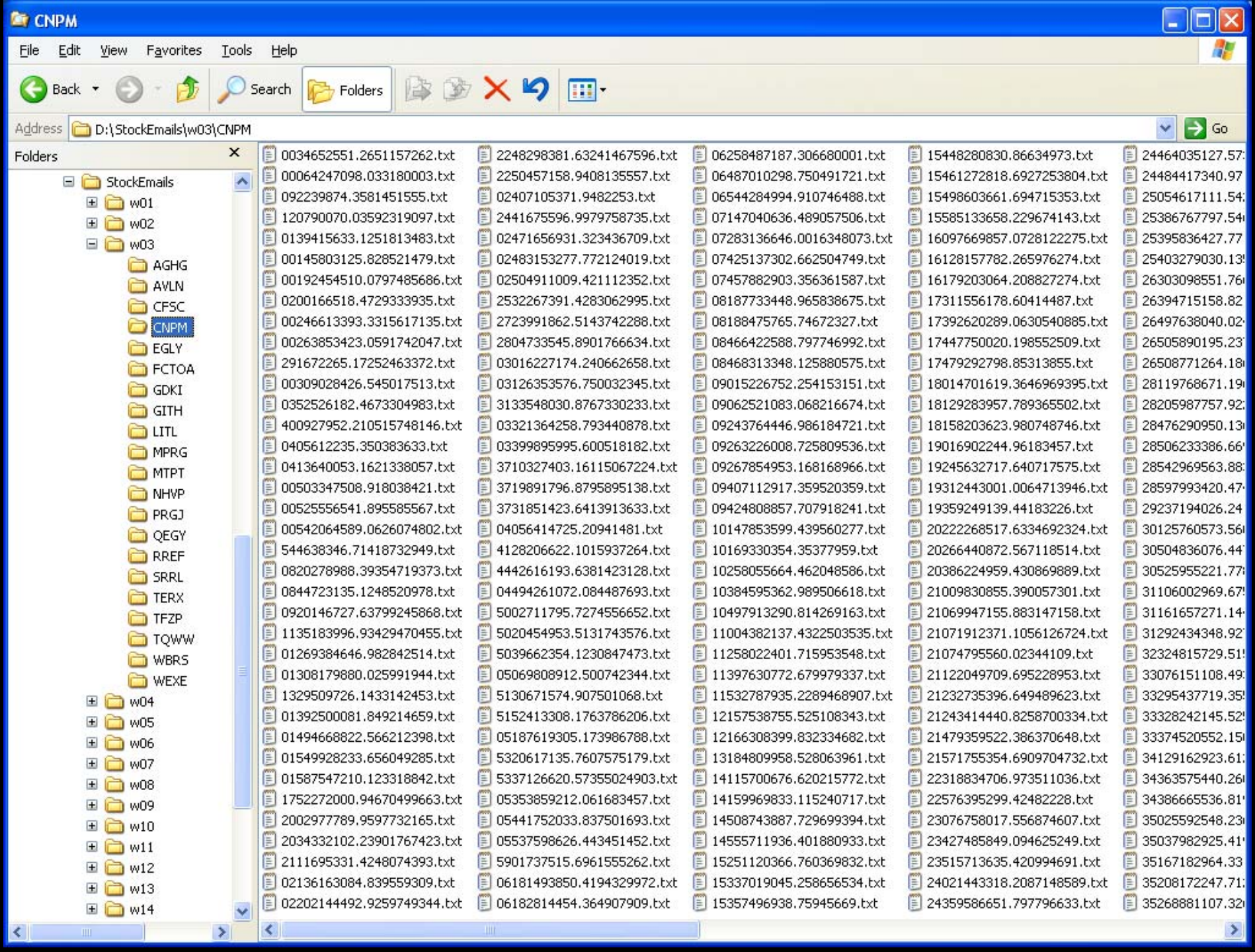
- “We first automatically extracted messages that appeared to be stock touts. This was done by selecting messages that met two conditions: (1) the message contained the word “stock,” and (2) the message contained a ticker symbol-like word.”
  - Frieder and Zittrain
- “…automatic scripts evaluate the e-mails received for all trap accounts, classify the subset of stock spam e-mails according to the target stock, and time-stamp them.”
  - Hanke and Hauser

- **All prominent stock spam studies used text-based analysis.**

- Before 2005, that still produced results. By 2006, nearly 100% of the successful stock spam was graphical.

Q: How do you sort graphical spam?

A: By hand!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Sorting Spam

- Sort all stock spam emails by stock symbol.

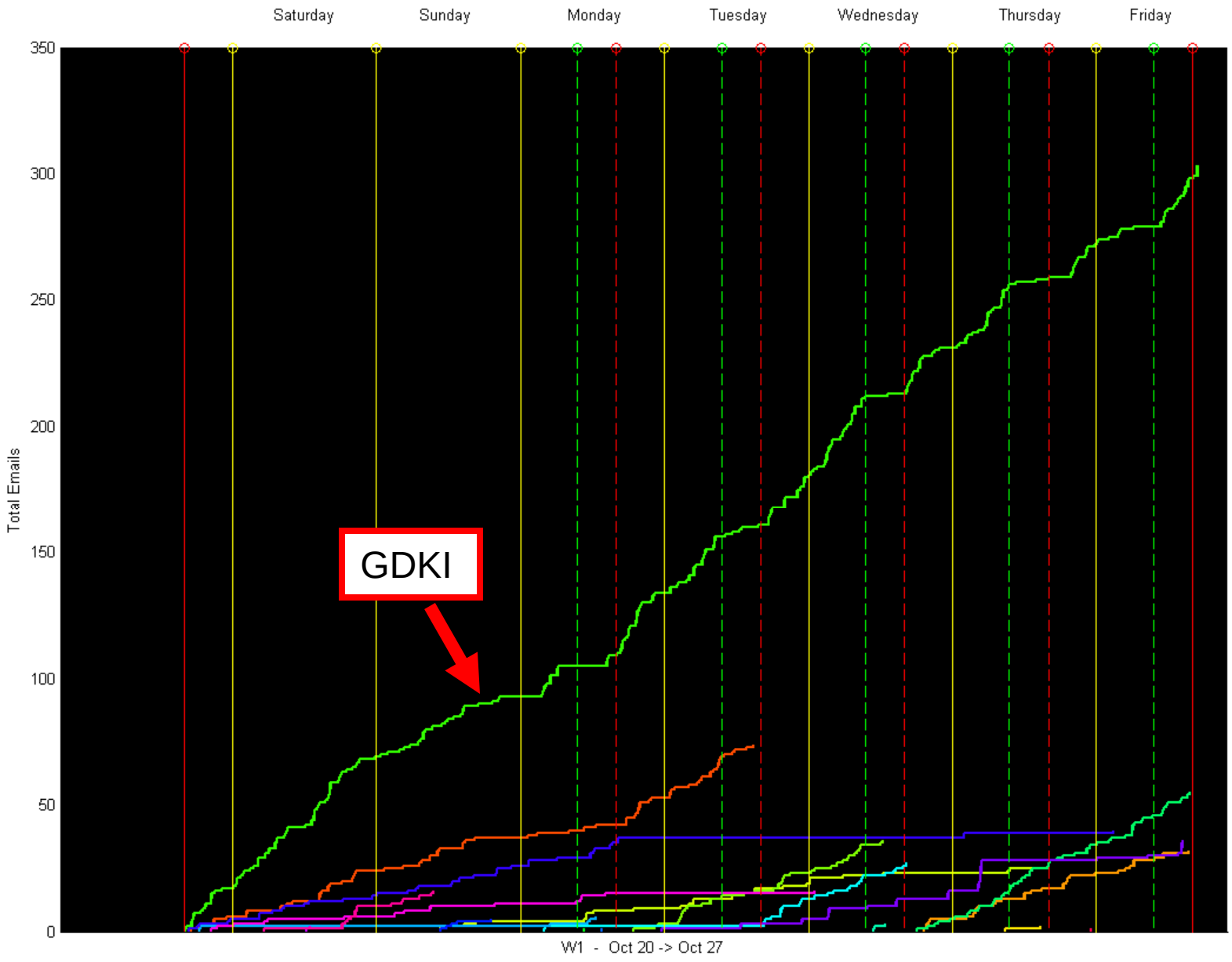
- 14 weeks
- >50,000 spam emails
- 12,168 stock spam

DATA!

- What can we get out of it?
  - Previous results
  - Relative botnet power
  - Identify spammer’s unique signature

Relative Botnet Power

1. Sort by stock symbol
2. Plot total emails over time for each symbol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Total Emails
GDKI
W1 - Oct 20 -> Oct 27

Spammer Signature

- Each spammer has his/her bag of tricks.
  - Layout
  - Encoding
  - Captcha-type obfuscation
  - *Style*!
- When you're looking at every email with your own eyes, it's easy…

Game Time!

- Choose the successful spammer…
- Week (n), this email had great results:



SRRL IS ABOUT TO REACH NEW HIGHS!
ADD SRRL TO YOUR RADAR ON WED NOV 15TH!

STELLAR RESOURCE NEW (OTC BB:SRRL.OB)

Symbol: SRRL
Price: ~$1
5-day Target: $5
Current Market: Bullish

OUR NEWSLETTER IS NEVER WRONG!
SRRL WILL POST GAINS EXCEEDING 500%! SIT BACK AND WATCH!

SRRL MAKES STUNNING ANNOUNCEMENT:
[b]ullet Stellar Resources, Ltd. - Company Identifies Development Target

THE WESTERN CANADIAN OIL SECTOR HAS NEVER BEEN HOTTER! THE PROVINCE OF ALBERTA ALONE CONTAINS ALMOST AS MUCH PETROLEUM AS SAUDI ARABIA! WATCH SRRL TRADE STRONG ON WEDNESDAY THE 15TH OF NOVEMBER!!!

Disclaimer: Information within this email contains "forward looking statements" within the meaning of Section 27a of the Securities act of 1933 and Section 21B of the Securities exchange act of 1934. The Publisher of this report was compensated by an unrelated third party twenty five thousand dollars for distribution of this report.

Week (n+1)
Which stock will have similar results?

YOU'VE SEEN IT BEFORE YOU SAY?
YOU AIN'T SEEN NOTHING!
THIS IS AN ALERT FOR MONDAY NOVEMBER 13!

Company Name: MOTION PICTURE GROUP (*MPRG.PK*)

Symbol: MPRG
Price: $0.20
Target: $1.0

Current Recommendation: Very Agressive Buy

MPRG RELEASES BREAKING NEWS:

The Motion Picture Group (MPRG) has released a number of new films including the Feature Film/Documentary "I Trust You To Kill Me" Staring Keifer Sutherland. The World Renowned William Morris Agency, represented the sale and yesterday they announced huge success at the AFM.

This one is selling at $0.20 but wont stay that way for long, we are expecting the details of the sale at the open of next week. Waste no time, Keifer Sutherland is one of the hottest actors in Hollywood; this sale could push the stock through the roof. Grab it first thing Monday morning!

MPRG IS THE ULTIMATE STOCK IN THE MOVIE INDUSTRY!
WATCH MPRG ON NOV 13!

Hint!

Trading Alert!

Trade Date: Wednesday, November 15, 2006
Company: VISION AIRSHIPS INC (Other OTC:VPSI.PK)
Stock Price 11/14/06: $0.001
7-10 Day Target Price: $0.15

News Released:
"Vision Airships Selects Las Vegas as First North American Market for Its Advertising Airships" (Read all about at Yahoo finance)

In order to benefit from this lucrative opportunity you need to get in now and start making profits. There's still time, but not much. This is the one you've been waiting for! Do yourself a favor and make that big score! Do not waste your money investing in companies that don't have what it takes to be successful. A track record of years of business is just the kind of foundation a great company needs to succeed.

WE WANT OFFER YOU NORTHAMERICAN ENERGY GROUP CORP. (NNYG.PK)!

BUY NNYG JUST AFTER CHRISTMAS. THE ALARM IS ACTIVATED!!! AND IT IS GOING TO EXPLODE!

WE SUGGEST FOR YOU THE NEXT PRICES:

CURRENT_PRICE: $0.024 GET IT IMMEDIATELY! TARGET PRICE IN 1 WEEK: 0.09$

USE YOUR BROKERAGE SITE READ THE EXHAUSTIVE INFORMATION ON THIS INCREDIBLE COMPANY.

THIS IS YOUR BIG CHANCE TO DOUBLE YOUR INVESTMENT FOR SHORT PERIOD.

QUANTUMENERGY

QEGY.OB

GET ON QEGY NOW!
IT'S ABOUT TO BLOW UP!

ADD IT TO YOUR RADAR ON MON NOV 6TH!

WATCH QEGY LIKE A HAWK ON MON NOV 6TH!

"Visit your favourite financial site to read the complete articles"

Market Information

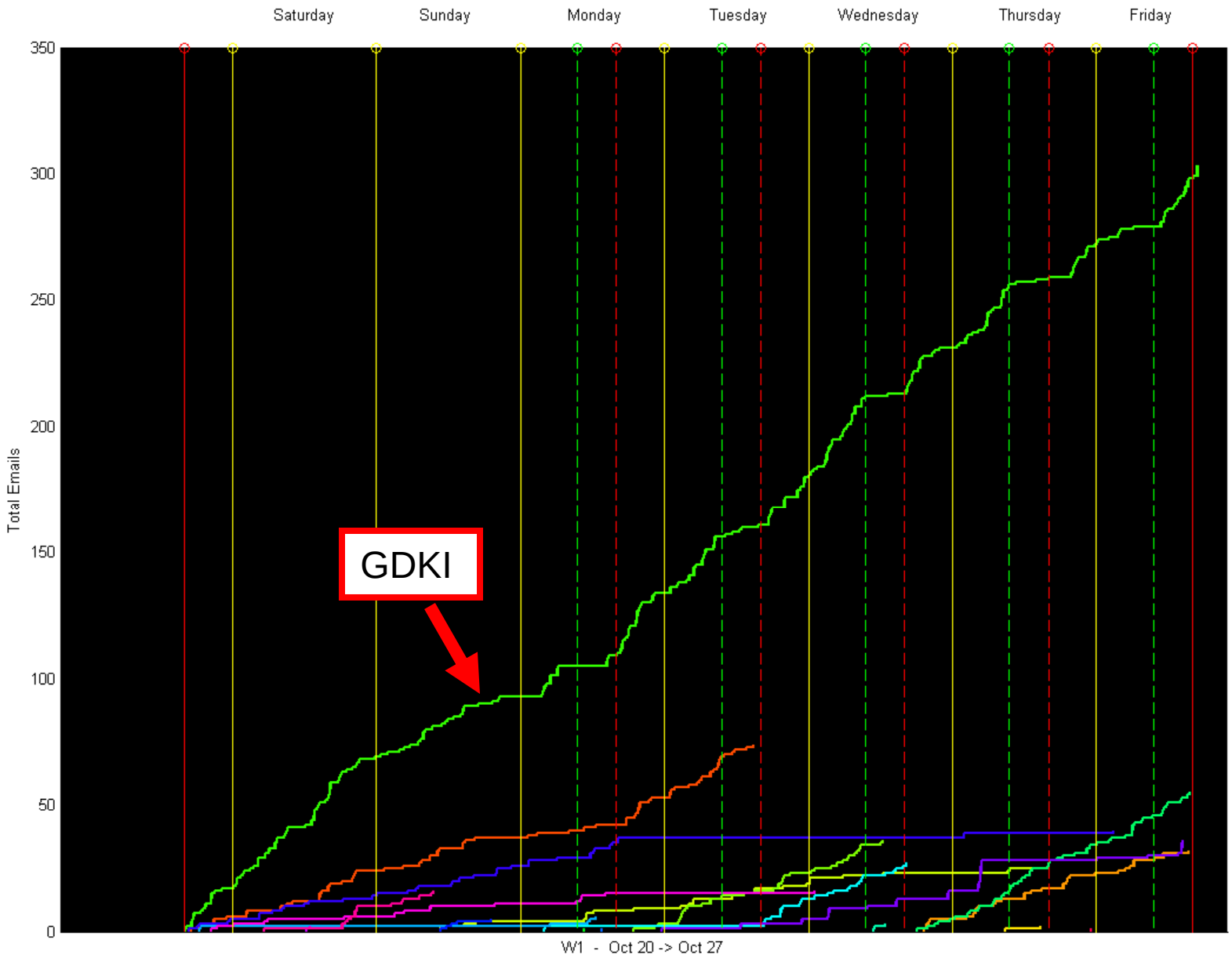
Company:
QUANTUM ENERGY INC (OTC BB:QEGY.OB)
Symbol:
QEGY.OB
Price:
$2.95
5-Day Target:
$6

Market Headlines

10/30/2006
Quantum Energy, Inc. Announces Bindng Agreement on Oklahoma Leases

10/20/2006
QUANTUM ENERGY INC. Financials

10/18/2006
Quantum Energy, Inc. Announces Inglish #5 is on Line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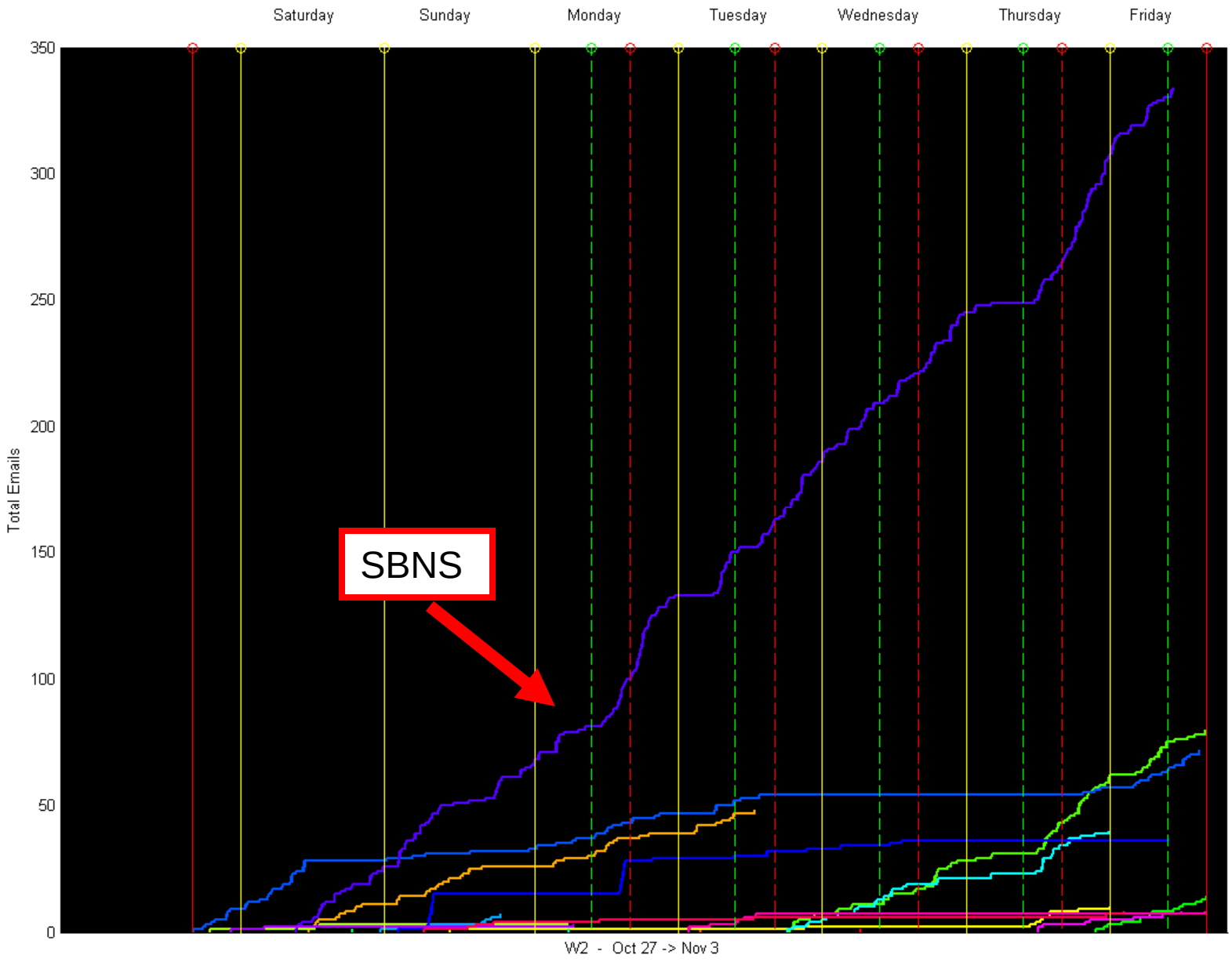
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SBNS
W2 - Oct 27 -> Nov 3

INVESTORS, WE HAVE PROVEN THAT WE ARE RIGHT!
SBNS GAINS OVER 50% ON NOVA 1 ONE OF PR CAMPAIGN!
WATCH IT TRADE STARTING 31!

Company Name: SHALLBETTER INDS INC (Other OTC:SBNS.PK)

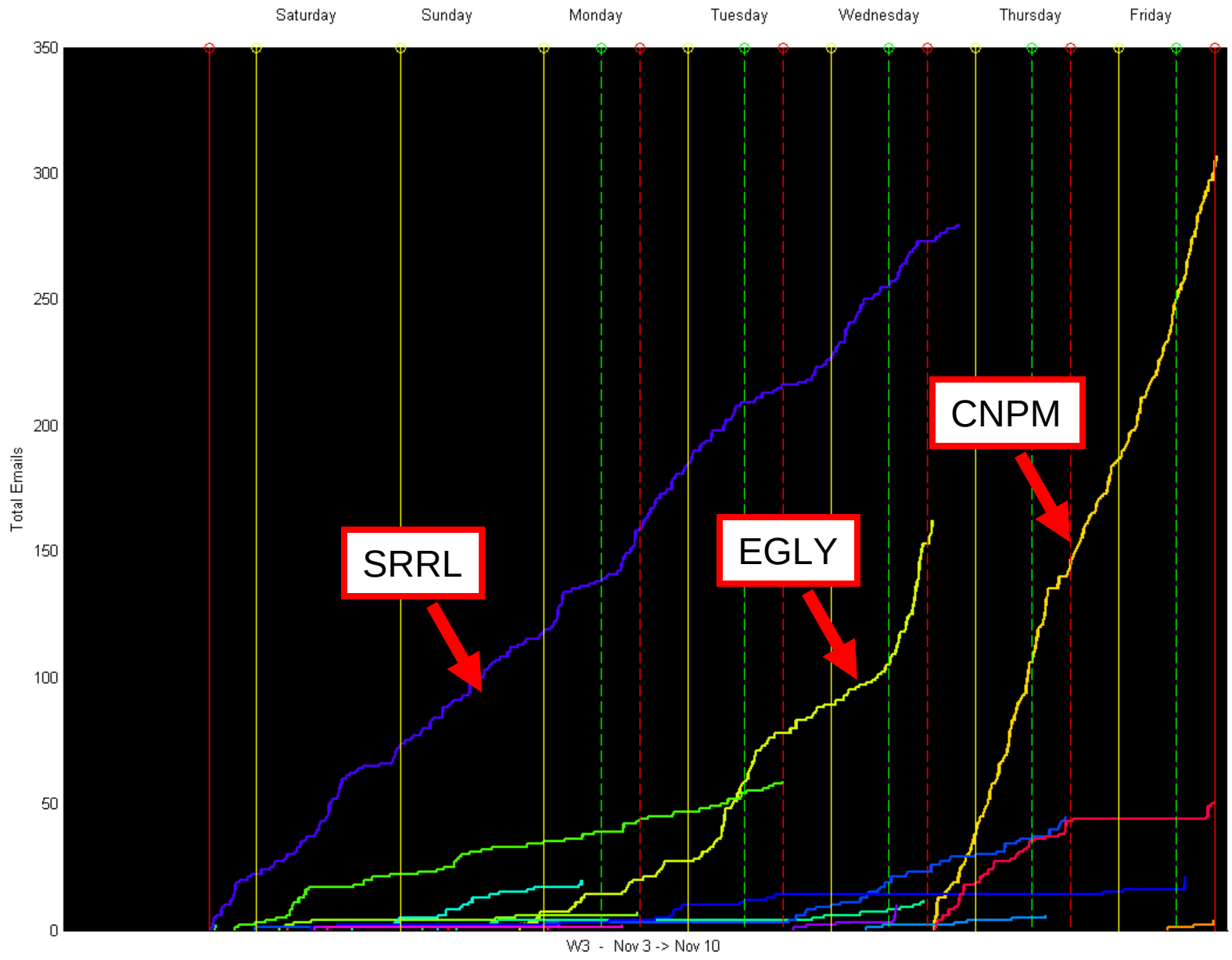
Price: $1.14(BIG DISCOUNT!)
Symbol: SBNS
5-day Target: $12
VERY STRONG BUY RECOMMENDATION

SBNS RELEASES BREAKING NEWS, READ ONLINE!

About SBNS:

Shallbetter Industries Inc. is a publicly traded mining company engaging in the acquisition, exploration and potential development of mineral properties in Outer Mongolia. The company trades on the OTC market of the United States under the trading symbol SBNS.

SBNS IS GAINING MOMENTUM! GET ON IT BEFORE IT'S TOO LATE!
ADD SBNS TO YOUR RADAR ON NOW 1!
WATCH IT SOAR!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SRRL
EGLY
CNPM
W3 - Nov 3 -> Nov 10

SRRL POSTS IMMENSE GAINS!

SRRL IS ABOUT TO REACH NEW HEIGHTS!

ADD SRRL TO YOUR RADAR ON WED NOV 08!

Company Name: STELLAR RESOURCE NEW (OTC BB:SRRL.OB)

Symbol: SRRL
Price: $1.46
Target: $20
Recommendation: Very Agressive Buy

SRRL IS SET TO POST GAINS OF OVER 1000%!

SRRL RELEASES BREAKING NEWS:
*** Stellar Resources Ltd. - Company To Focus Efforts in North American Energy Sector

HUGE PR CAMPAIGNS ARE ONGOING!
WATCH SRRL TRADE HIGH ON WED NOV 08!

Our Hottest pick this year! Brand new issue Cana Petroleum!

VERY tightly held, in a booming business sector, with a huge publicity campaign starting up, Cana Petroleum (CNPM) is set to bring all our readers huge gains. We advise you to get in on this one and ride it to the top!

Symbol: CNPM
Current Price: $2.95
Projected Price: $11.40

Check the stats! Check the level 2! Imagine what this one will do when the full force of the PR campaign hits it, in conjunction with smashing news!

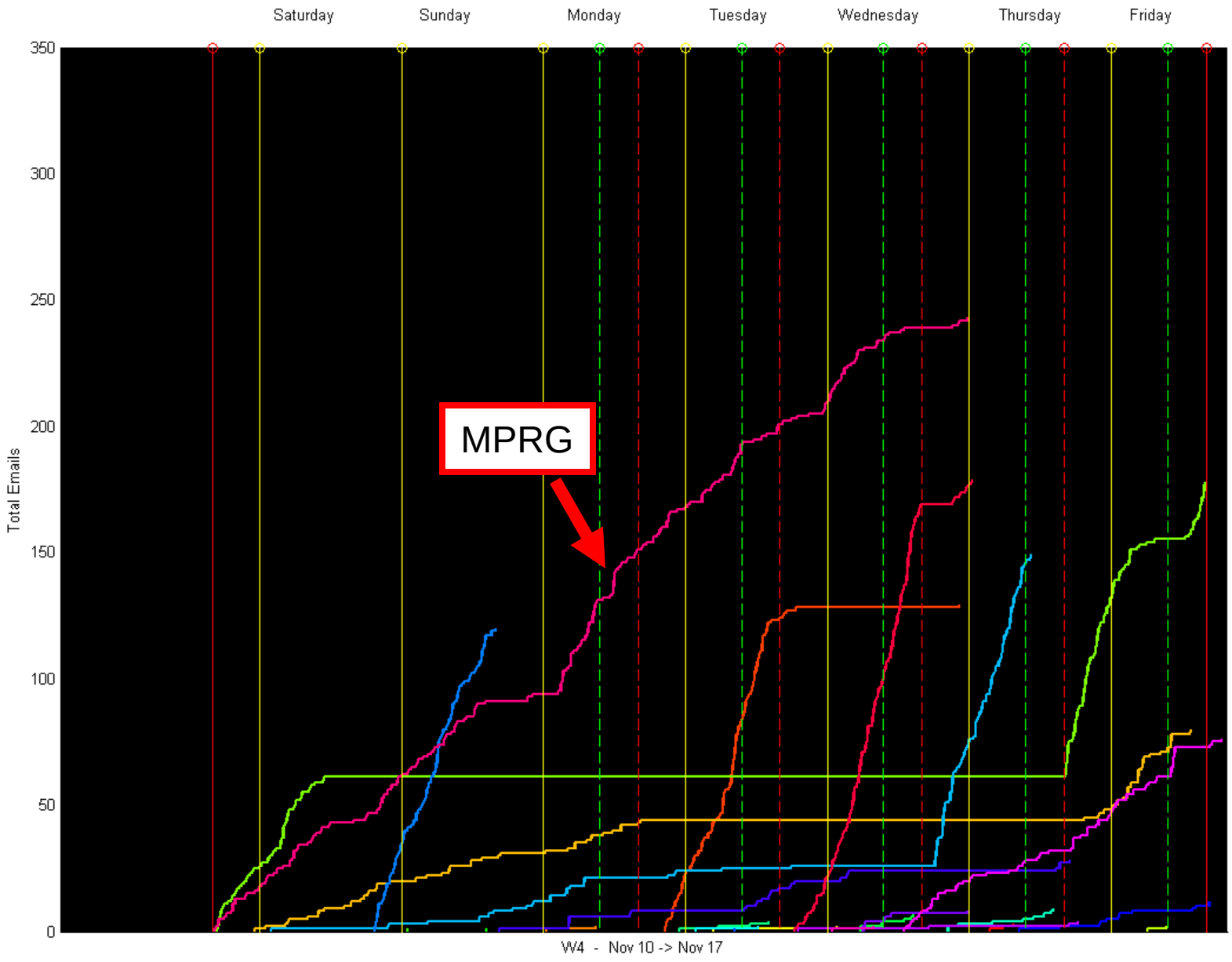
Major oil discovery? We are not permitted to say at this point. All we can say is that this one is going to see amazing appreciation in a very short period of time! This is your opportunity. Win big with CNPM!
--

What's the first rule of investing? Buy low sell high!
Yesterday, market forces caused our top pick (EGLY) to close down on the day. This gives our members the perfect opportunity to pick some up on the cheap before the big information!

Ever-Glory International (EGLY)
Current: 0.63
Projected: 1.30
Rating: 5/5
Here's the latest news:

LOS ANGELES, CALIFORNIA-(MARKET WIRE)-Nov 6, 2006 - 9:45am-
The Relationship between Ever-Glory and Disney's Agent is going well, with Orders Recorded in Excess of $100,000 for First Half of 2006.
We believe that having such a relationship with Disney is a huge window of opportunity which could lead to extremely large contracts. Go EGLY!

Other news: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W4 - Nov 10 -> Nov 17

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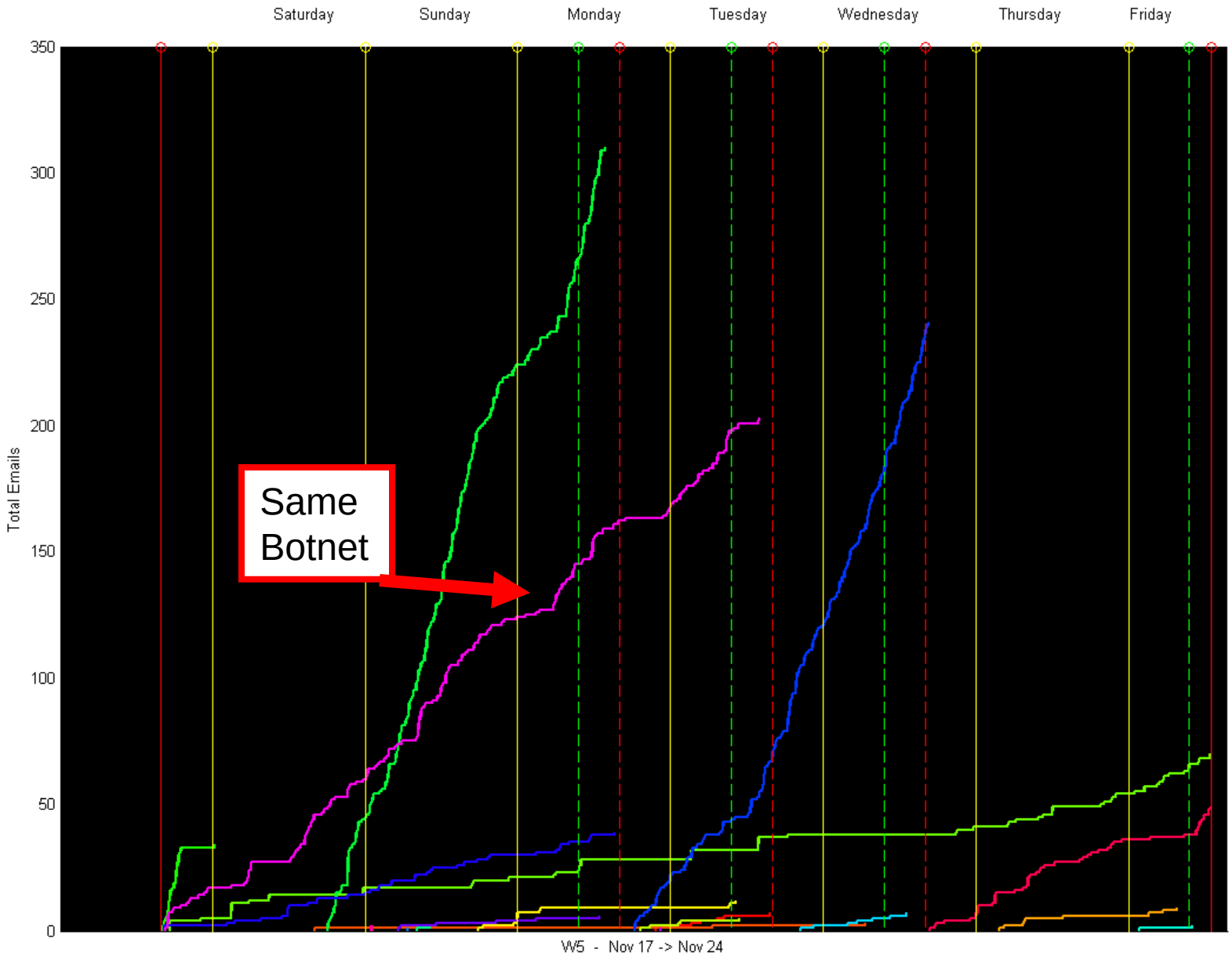
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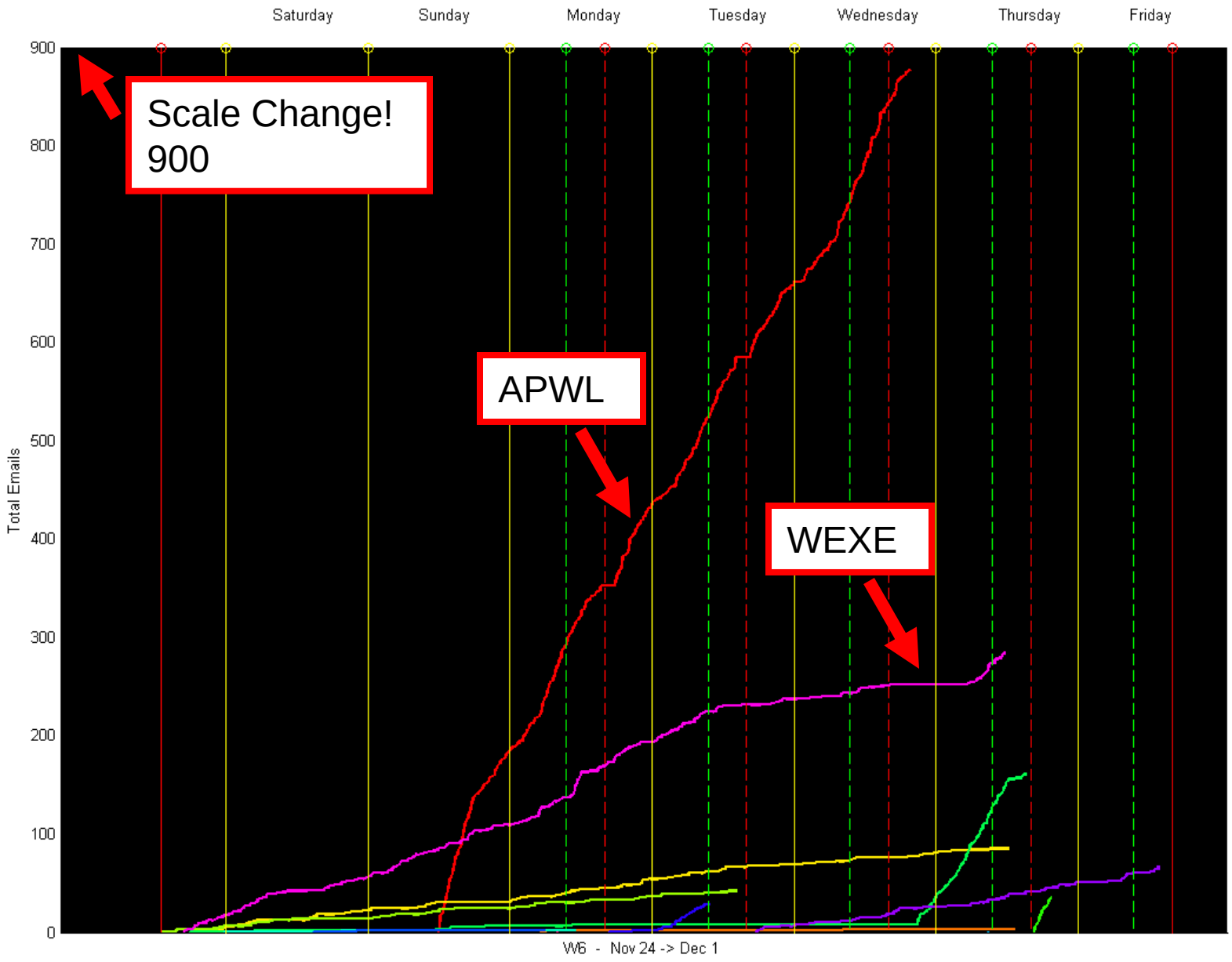
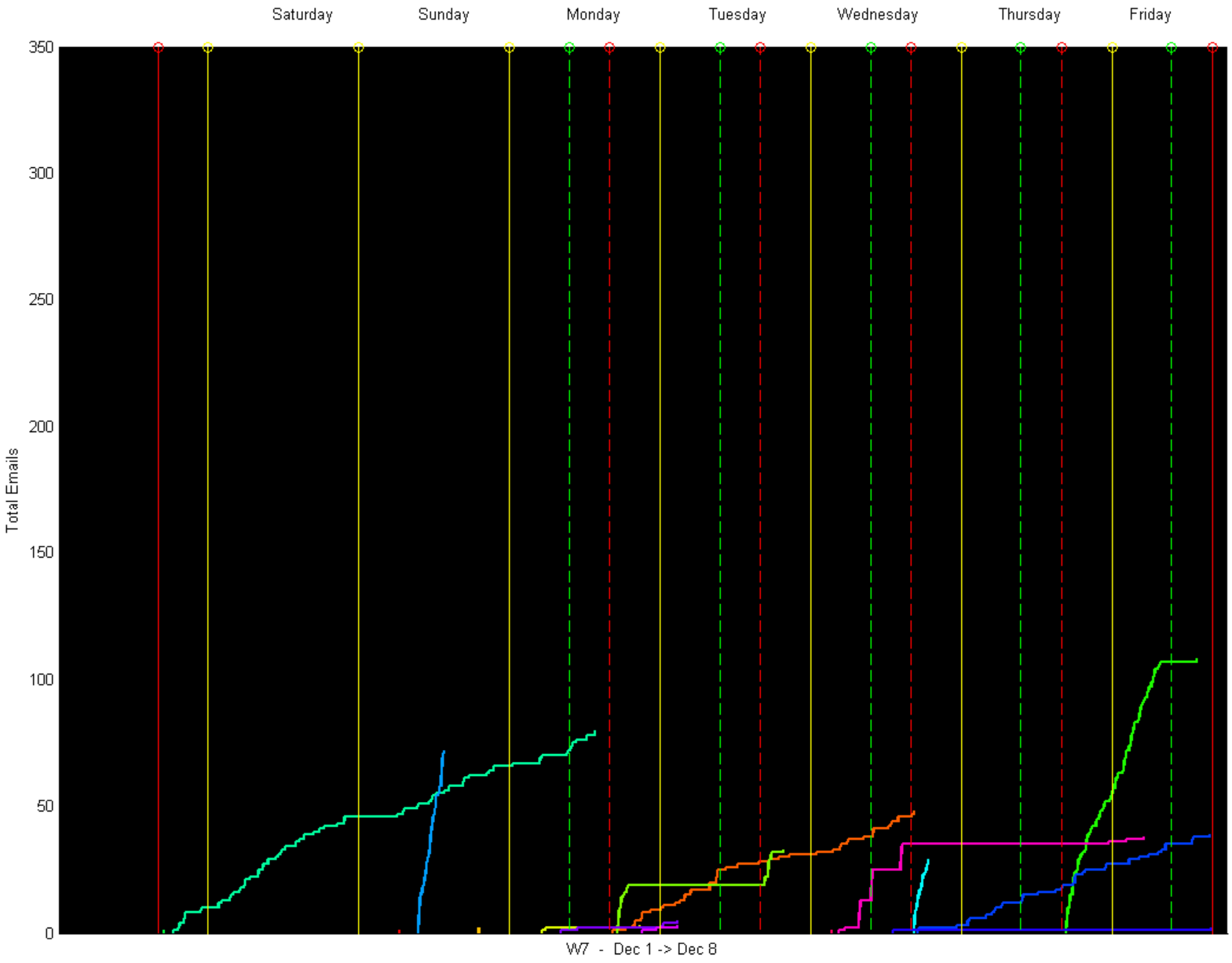
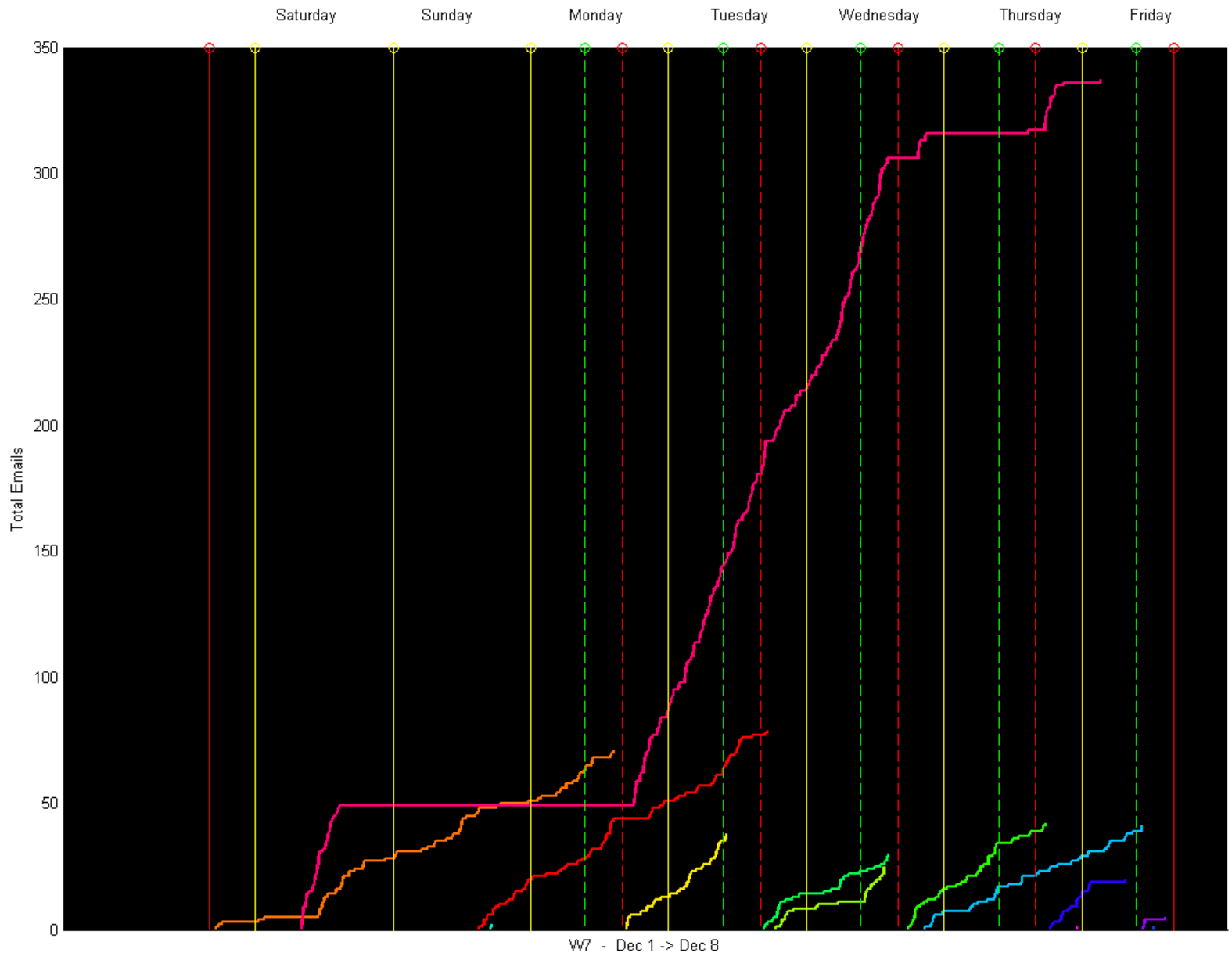
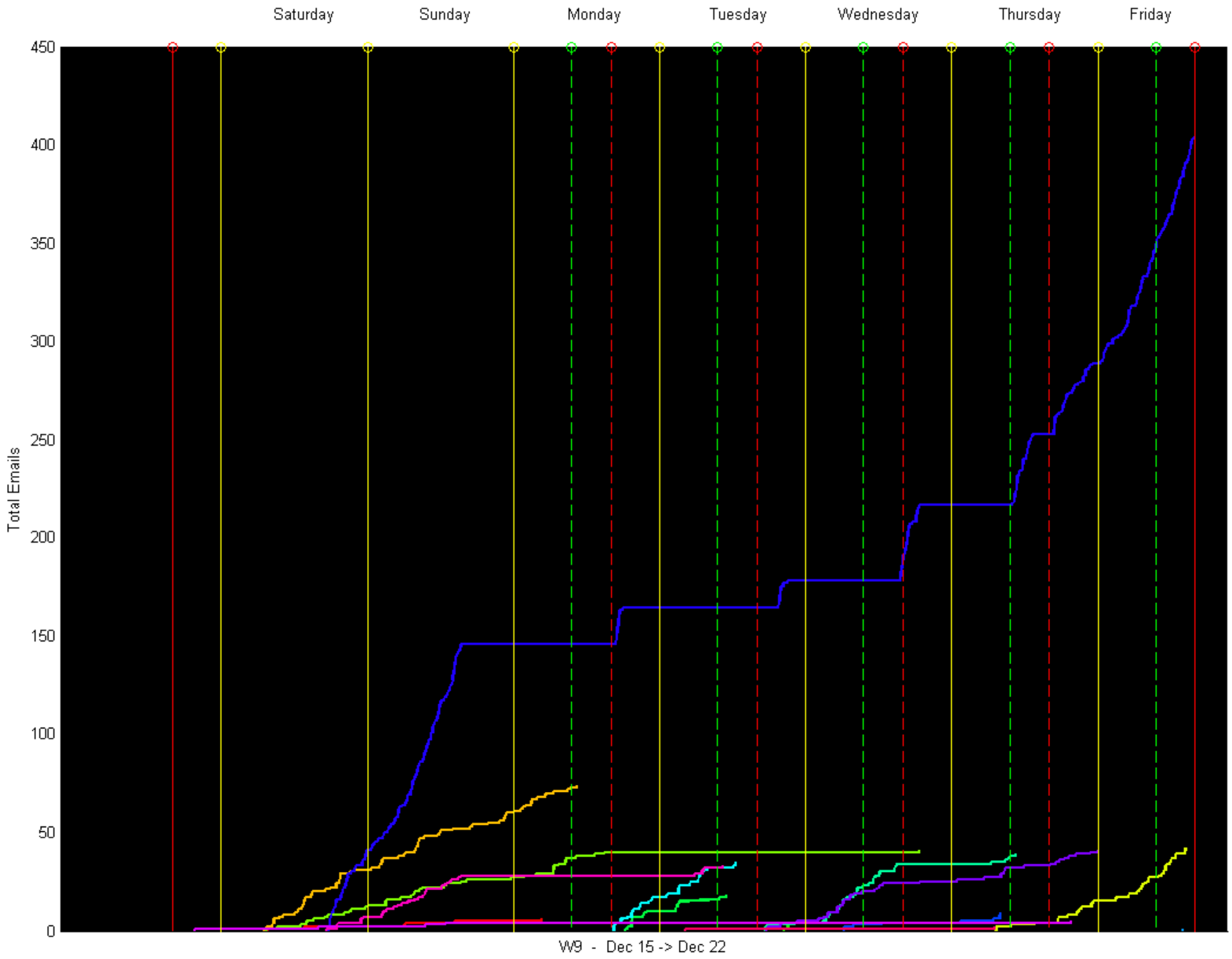
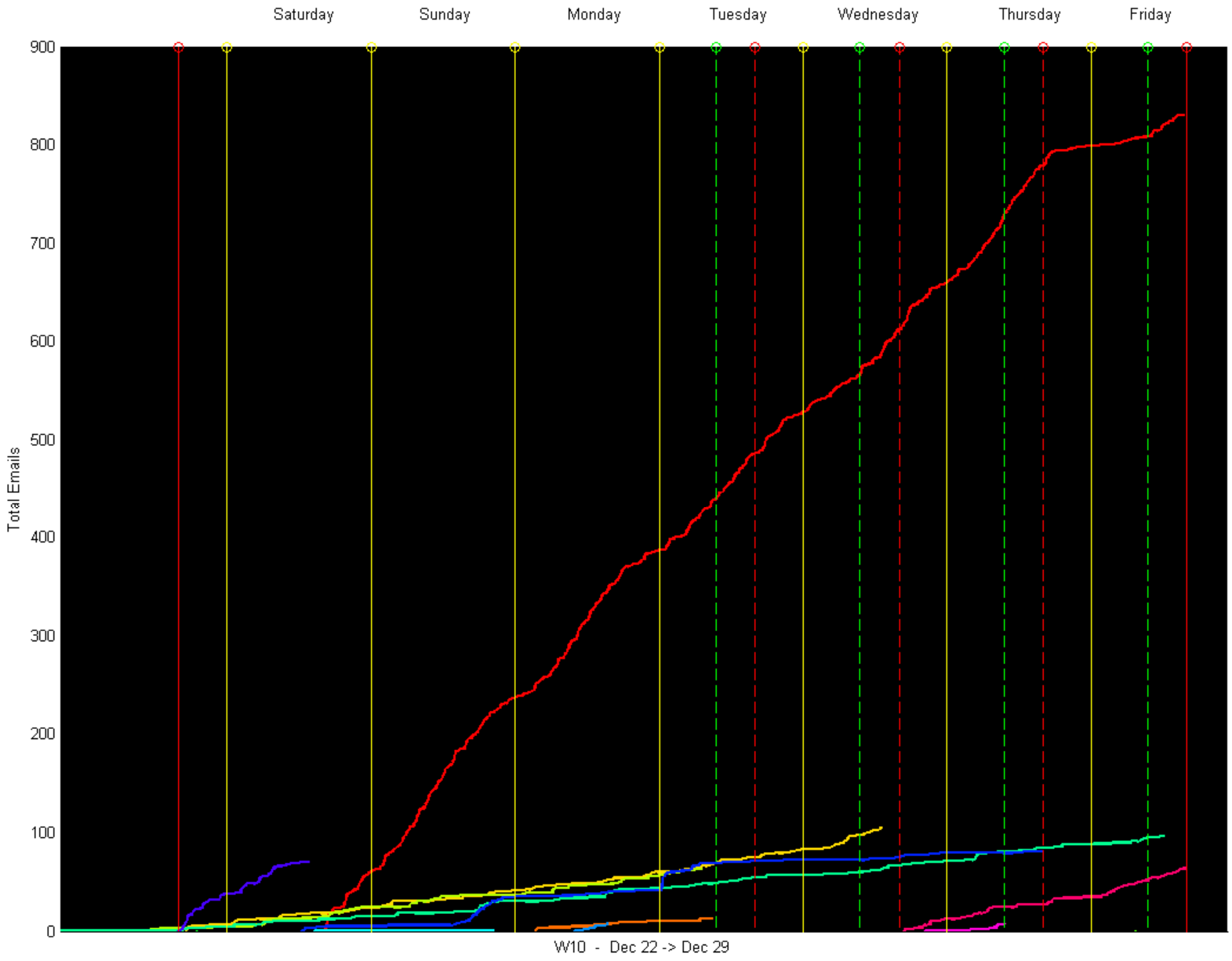
Same Botnet
W5 - Nov 17 -> Nov 24

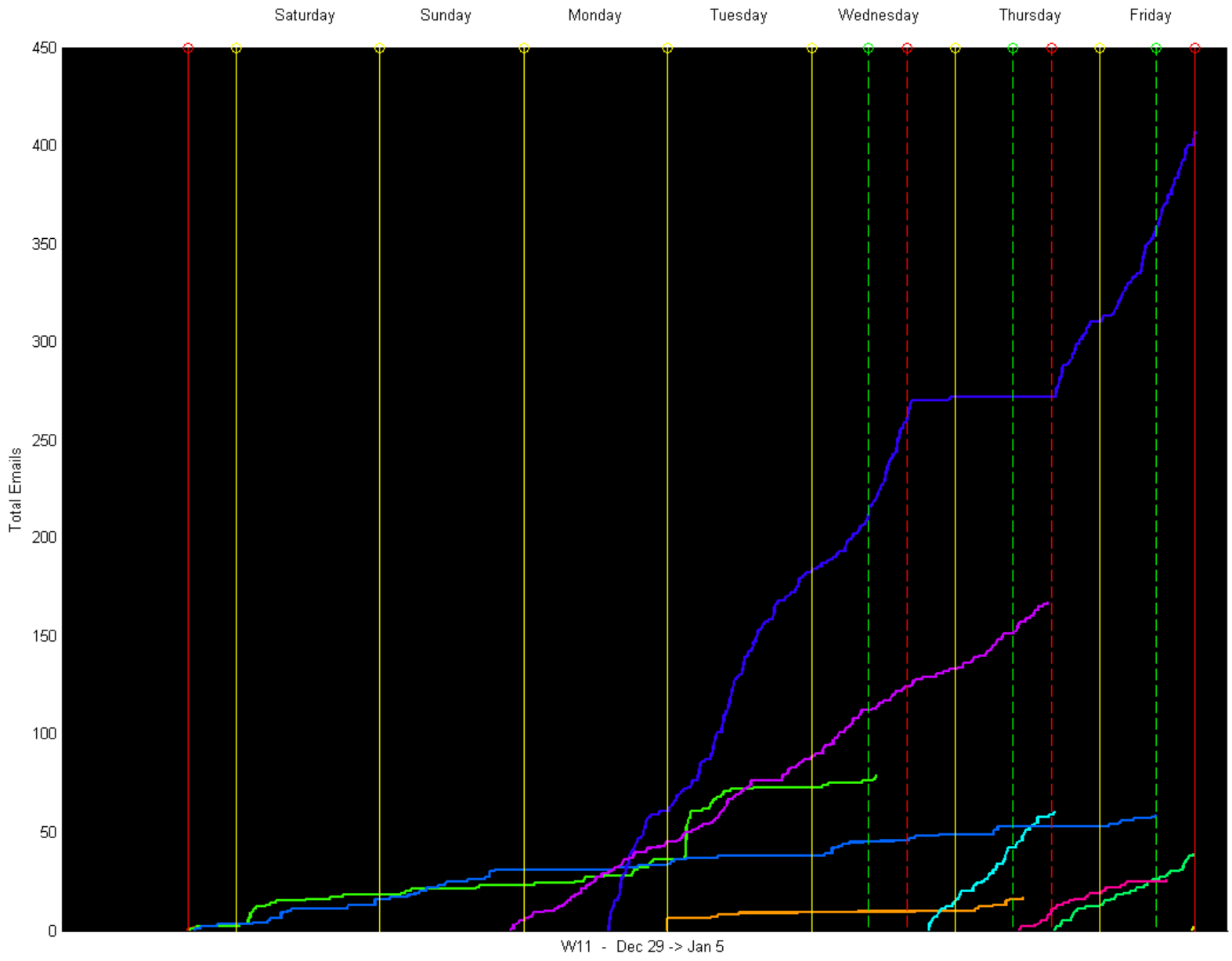

Saturday
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
900
800
700
600
500
400
300
200
100
0
Total Emails
Scale Change!
900
APWL
WEXE
W6 - Nov 24 -> Dec 1

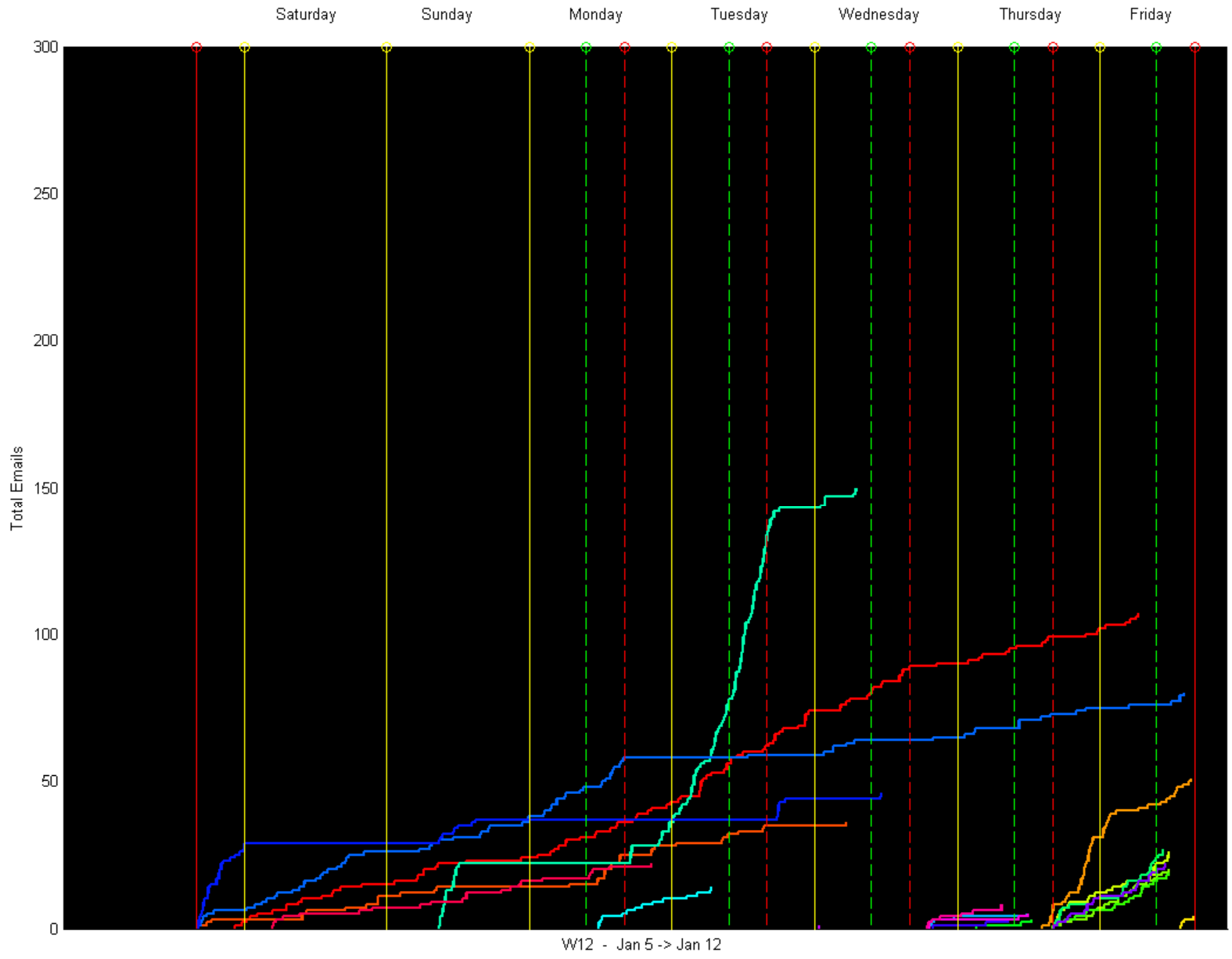

Saturday
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
350
300
250
200
150
100
50
0
Total Emails
W7 - Dec 1 -> Dec 8


Saturday
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
350
300
250
200
150
100
50
0
Total Emails
W7 - Dec 1 -> Dec 8


Saturday
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
450
400
350
300
250
200
150
100
50
0
Total Emails
W9 - Dec 15 -> Dec 22


Saturday
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
900
800
700
600
500
400
300
200
100
0
Total Emails
W10 - Dec 22 -> Dec 29


Saturday
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
450
400
350
300
250
200
150
100
50
0
Total Emails
W11 - Dec 29 -> Jan 5


Saturday
Sunday
Monday
Tuesday
Wednesday
Thursday
Friday
300
250
200
150
100
50
0
Total Emails
W12 - Jan 5 -> Jan 12

W13

- The text-based spammers lose their minds
  - Spamming 15 different stocks
  - All text-based
  - No results

So what?

- We don’t wait to see how many emails a spammer will send out… we already know.
- We pick a winner with a *single* email.
- When the best spammers sends out his *first* email about a stock, we know to buy.


JNNE 5-Minute
4:00 PM
So we buy the stock… here
5/16
1/4
3/16
Volume
© BigCharts.com
1
0.5
Millions
T
10
11
12
1
2
3
4

The Jordan/Vogt Method

1. Sort week's worth of spam by ticker symbol.
2. Identify spammer by email style
3. Compare each spammer's past results
4. Identify top spammer
5. When first email from top spammer arrives… *buy the stock*.
6. Sell out.

Did it work?

- Yes…
- …and no.

- Method worked for a few weeks, until the whole bottom fell out of stock spam.
  - Best spammer had a bad week (lost ~$2M) then dissapeared.
  - Major botnet takedowns (?)
  - Major SEC crackdown (“Operation Spamalot”)

“Operation Spamalot” – 3/07

- SEC suspended trading on 35 stocks
- Indicted two men in Texas for securities fraud. Eventual $3.8M settlement.

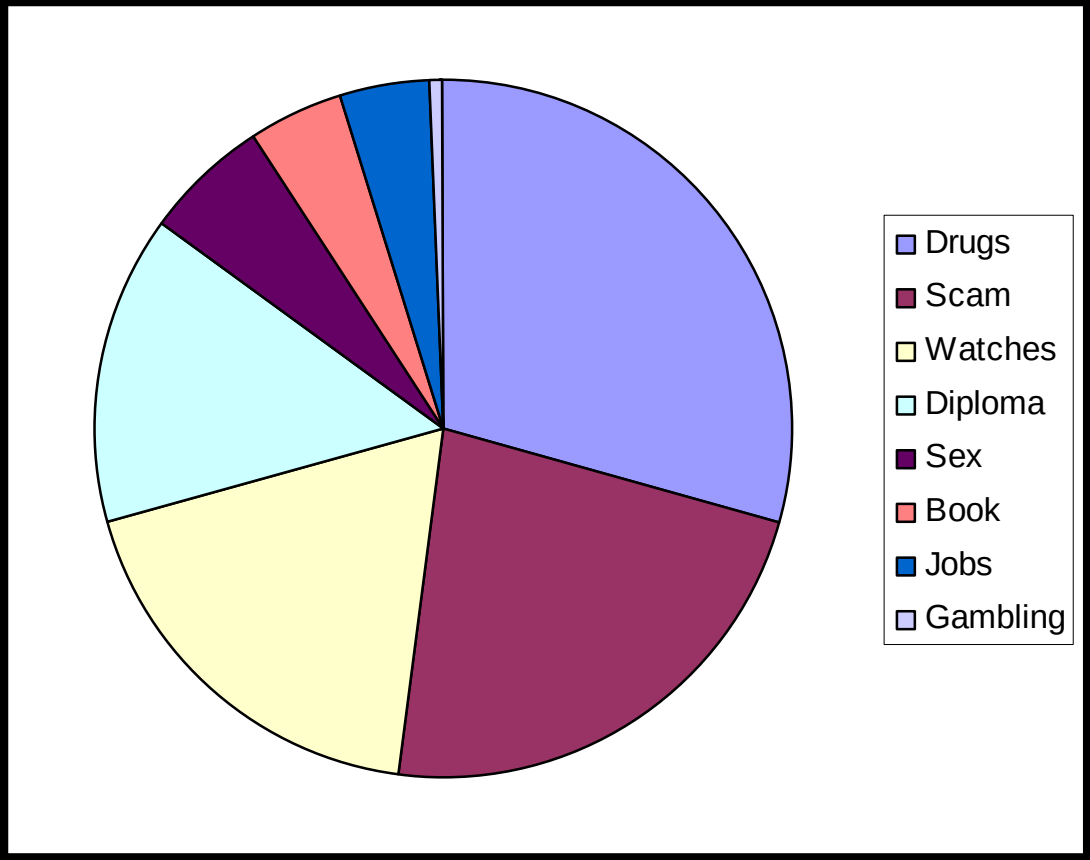
- Operation started because an SEC attorney was getting the spam.

Could it work again?

- Maybe.
- Spam goes in cycles… botnets come and go.

A Recent Look at my Spam Folder:

(April 2009)



- ZERO stock spam emails!
- The whole stock market meltdown thing probably didn’t help.

Will it happen again?

- Spammers have given up on stock manipulation… for now.
- If it starts again, the Jordan/Vogt method will probably work again.

- Unless…

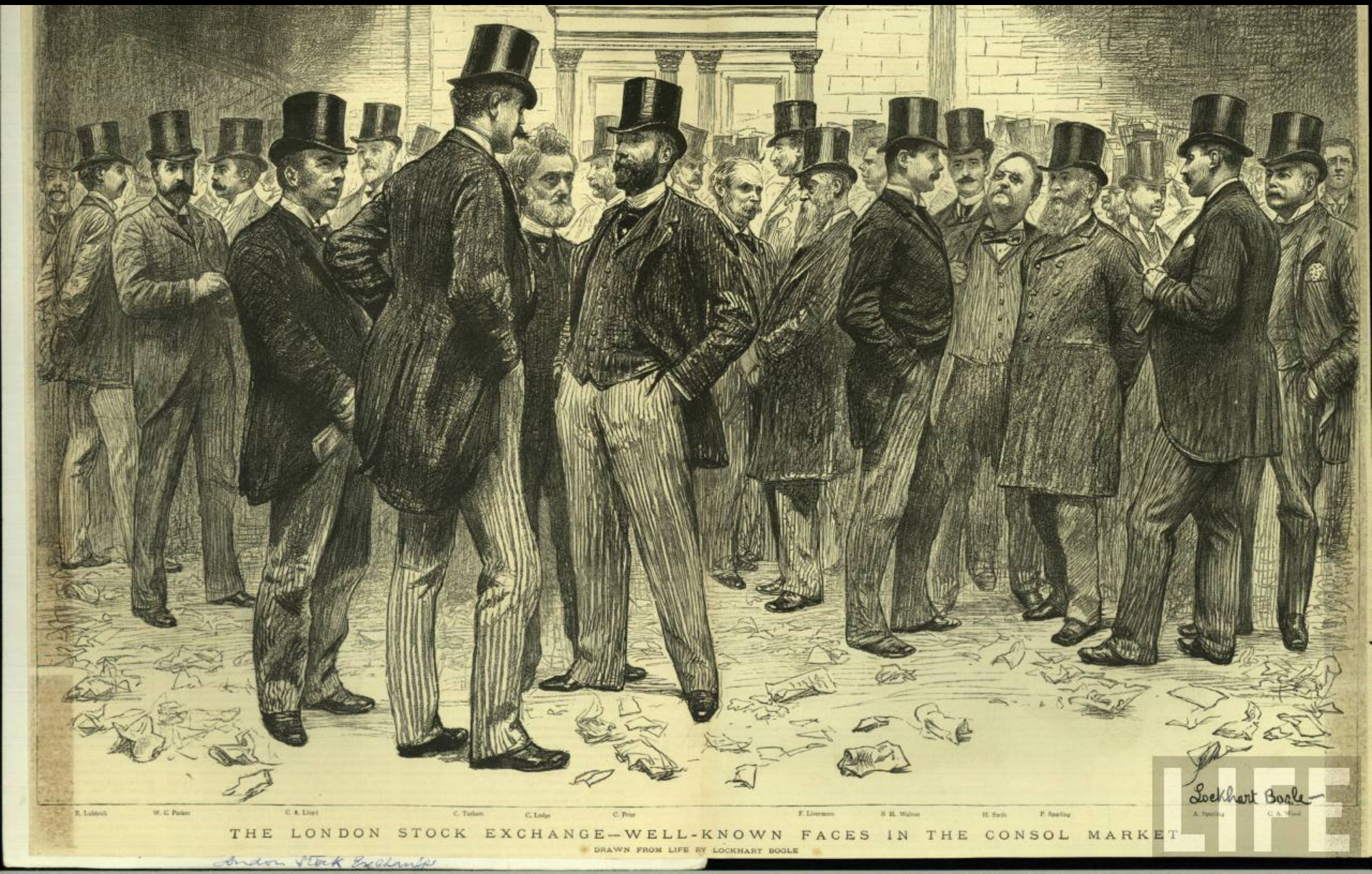
But now you all know…

- So what happens if all of you do it?
  - Increased liquidity = More spammer profit
  - Stocks tank faster, since you know to get out.
  - Maybe the only “suckers” will be the people trying to beat the spammers?

- And what if I have a new meta-strategy?
  - Because now… “I know you know.”
  - Bwahaha! (?)

Questions?

stockspam@wisecracktools.com



Other Topics I can discuss:

- Could we possibly crash out the market *before* the spammers sell out?
- Company responses to spam on their stock.
- SEC Investigations of the stocks analyzed.
- Characterizing types of involvement…
  - Spammer picking random company
  - Inside job