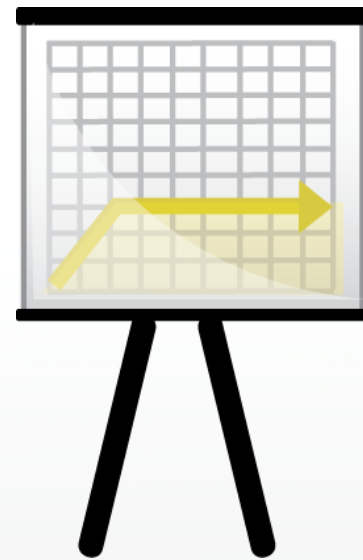# *40m Late: Past, Present & Future*

40m Late Net Check-In Trends & Analysis
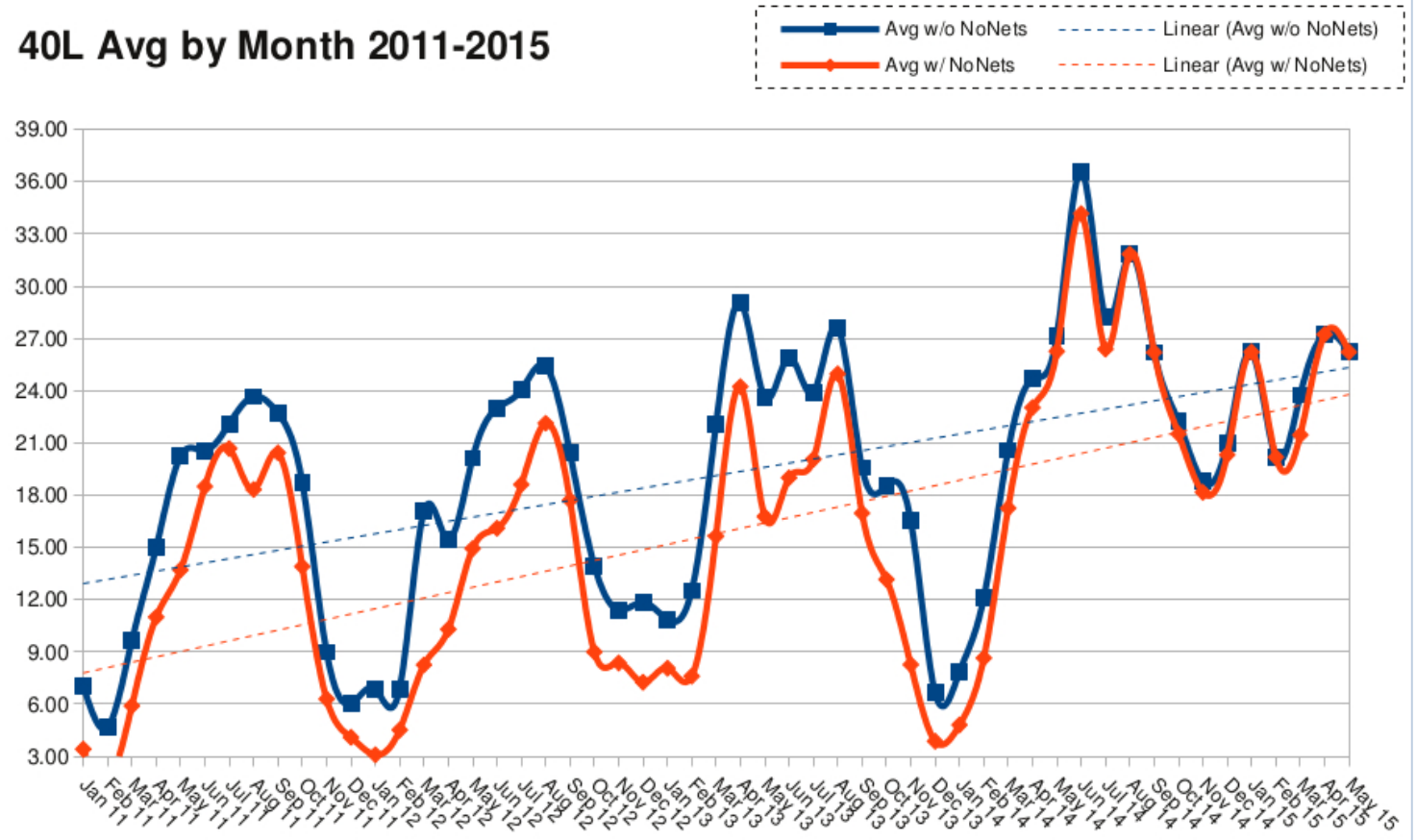### by Skip Guenter, K5SRG
40m SSB Late Net Coordinator

40m Late: Past, Present & Future

- **Check-in trends over the years**

- **Factors influencing check-ins**

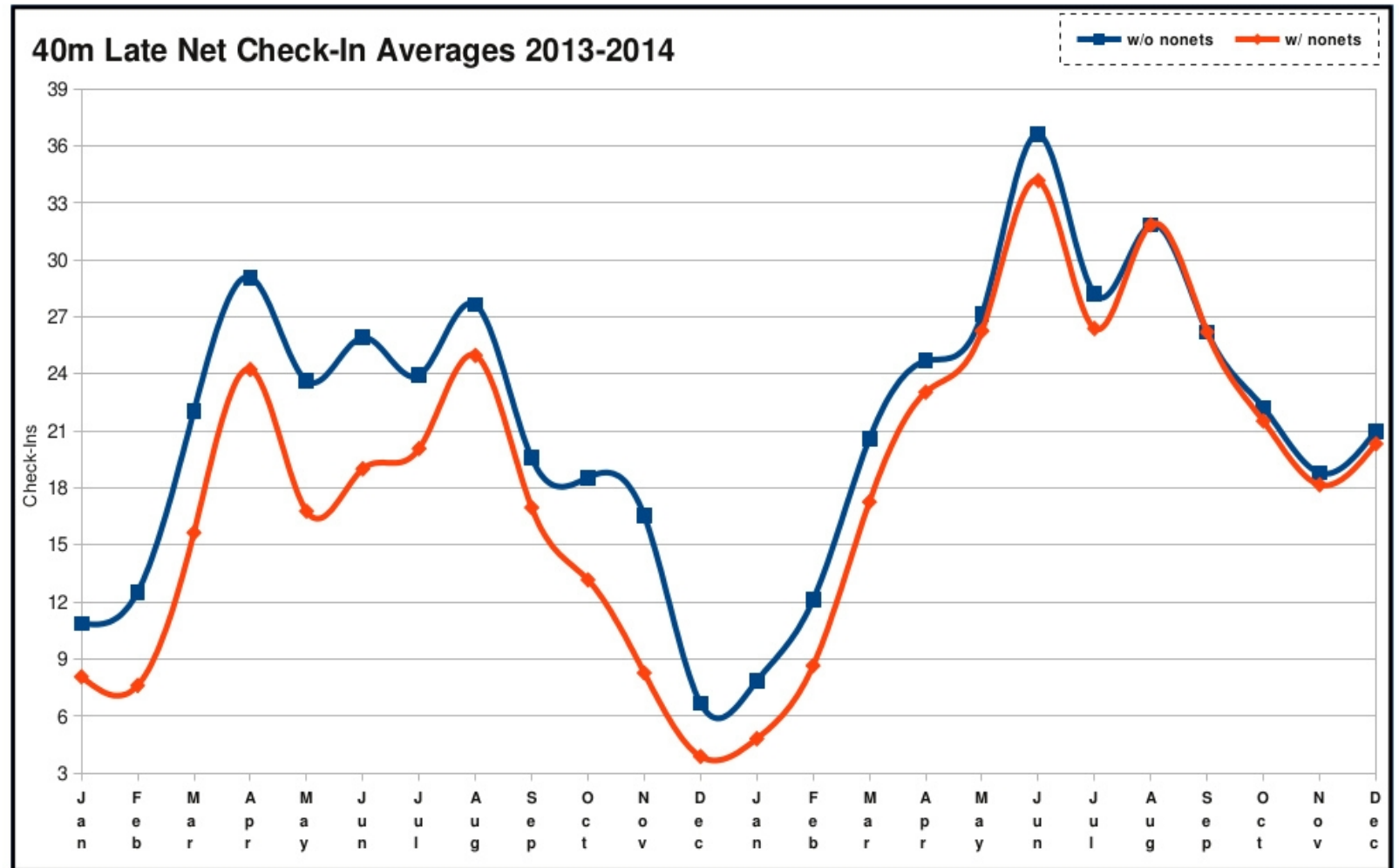- **Day of Week (DOW) analysis**

- **Directions for the future**

Check-In Trends Over the Years

Check-In Trends Over the Years

40m Late Net Check-In Averages 2013-2014

Check-In Trends Over the Years

40L Average Check-Ins by Month - 2014 + 2015
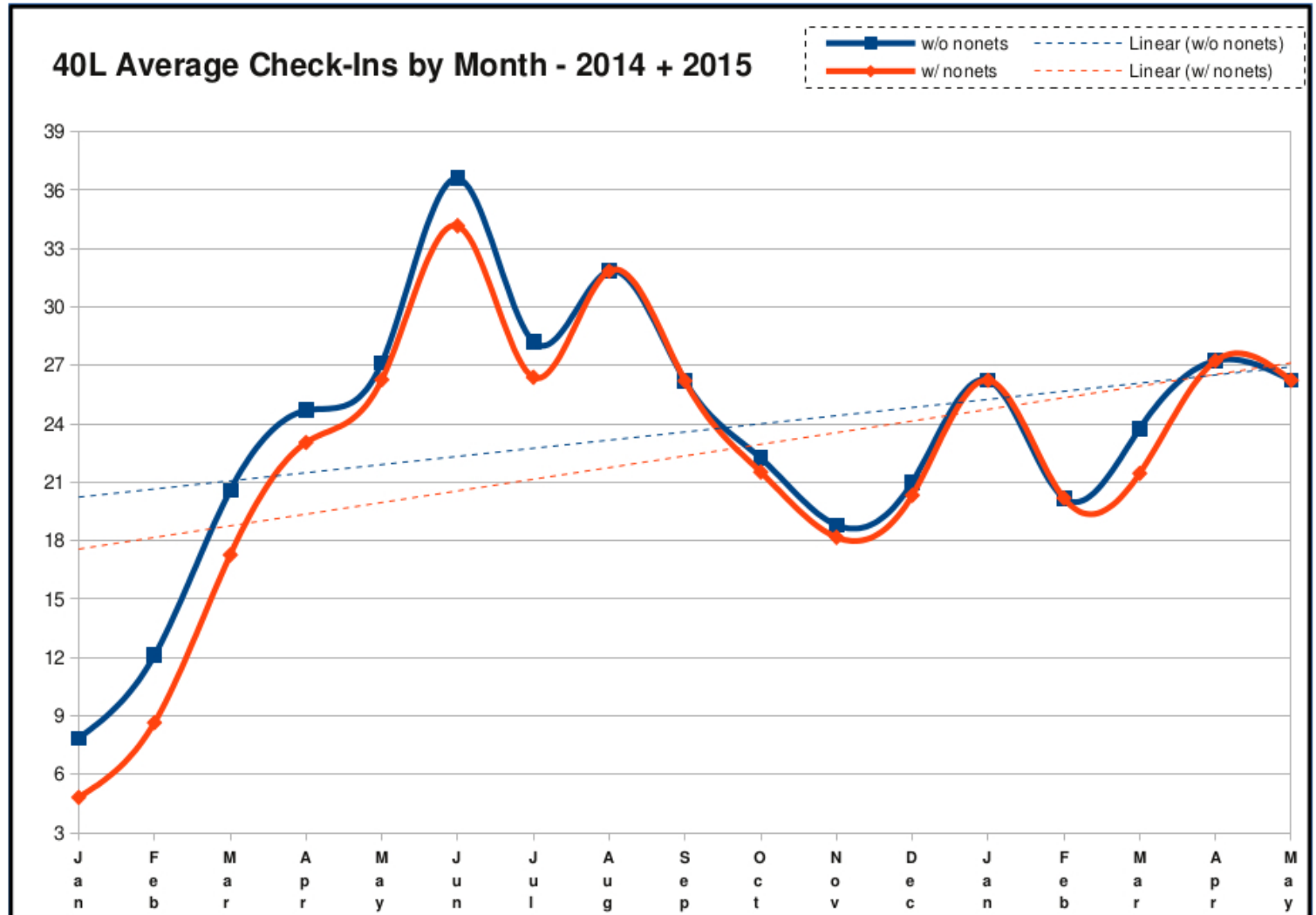
Factors Influencing Check-Ins
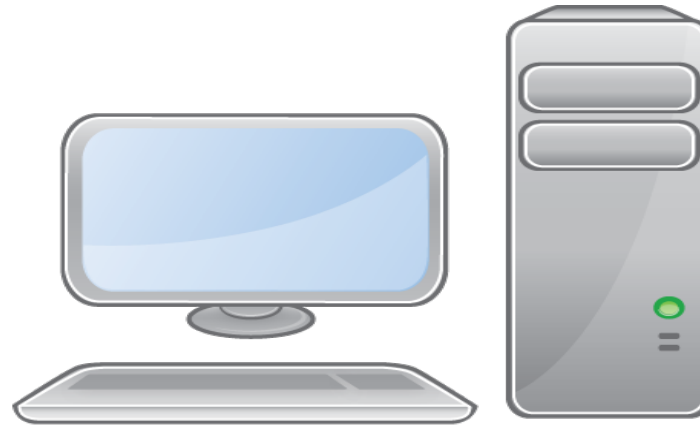
Interpreting the graphs leads us to consider what factors influence check-in counts.

Next, we'll identify some of these factors.

Factors Influencing Check-ins

Factors Not Controlled by the Net Control Station

- *Band conditions*

- *Day of the Week – Work day or weekend?*

- *Contests*

- *Scheduling same NCS each week on given day of week*

Factors Influencing Check-ins

Directly Affected by Net Control

- *Signal Strength & Readability: How well can I hear NCS?*

- *Speed & Organization*

- *Attitude – Friendly & Energetic or Unwelcoming and Aloof?*

- *Efficient use of relays*

DOW Analysis

Average 40m SSB Late Net Check Ins by Local Day of Week, Dec 2013 – Feb 2014

Dec thru Feb	
Day of Week	Average
Sunday	13.78
Monday	8.11
Tuesday	5.78
Wednesday	8.11
Thursday*	15.00
Friday	10.50
Saturday	6.64
Overall Avg →	9.70
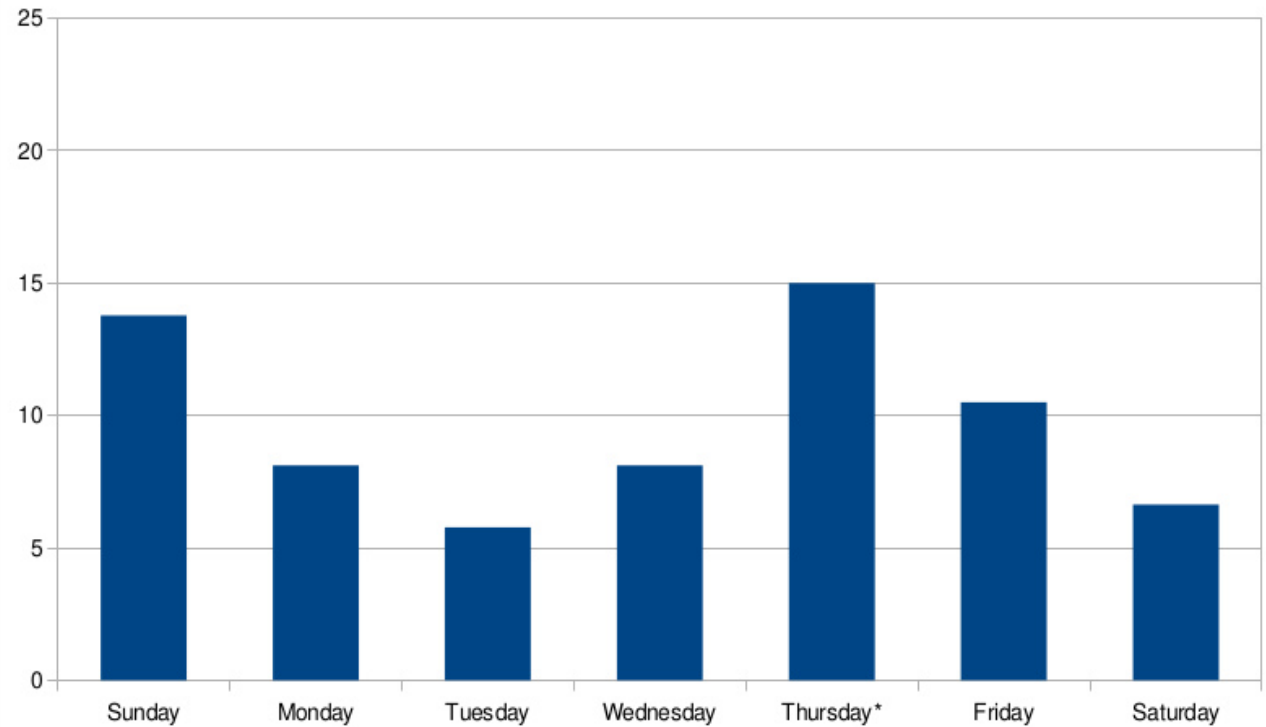
* Only three data points for this average. I suspect it's overstated.

DOW Analysis

Average 40m SSB Late Net Check Ins by Local Day of Week, Dec 2014 – Feb 2015

Dec thru Feb	
Day of Week	**Average**
Sunday	19.77
Monday	19.50
Tuesday	18.23
Wednesday	19.17
Thursday	18.77
Friday	15.17
Saturday	23.50
Overall Avg →	19.16
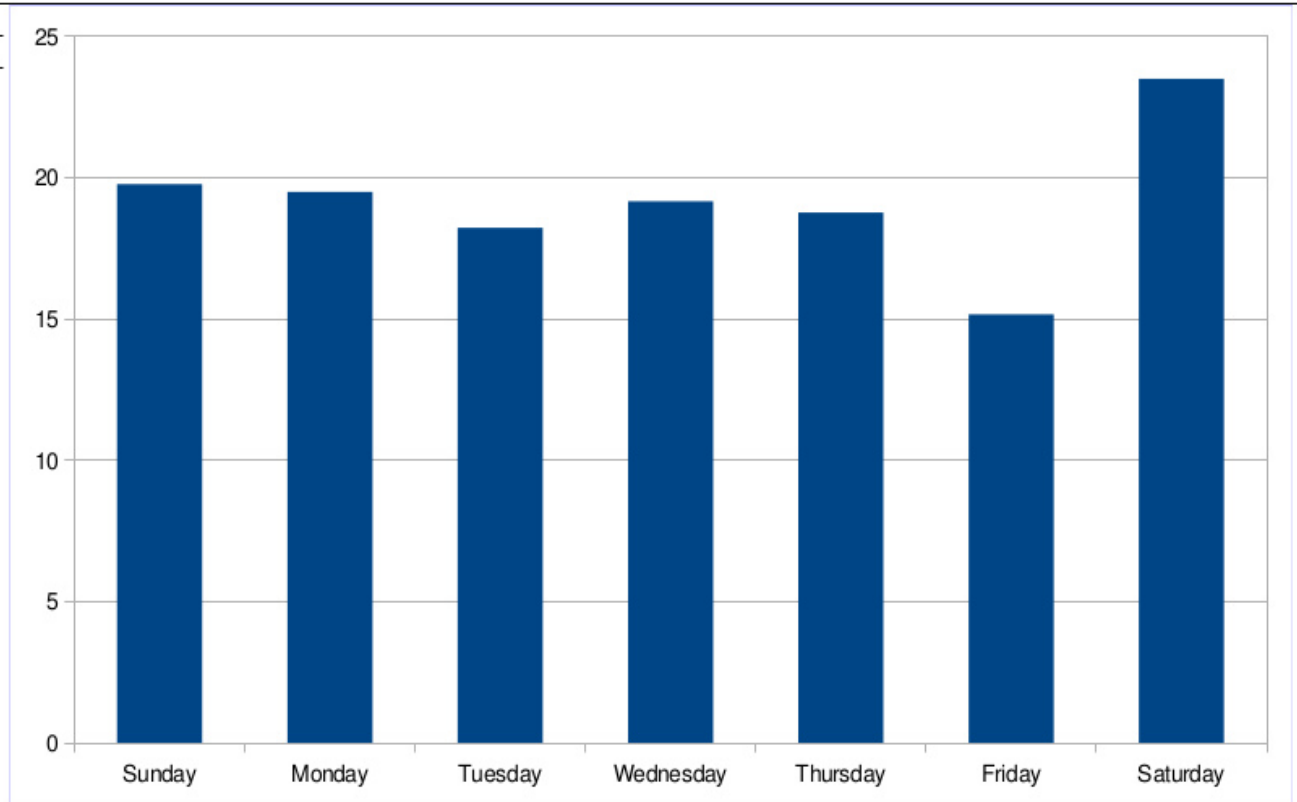
DOW Analysis
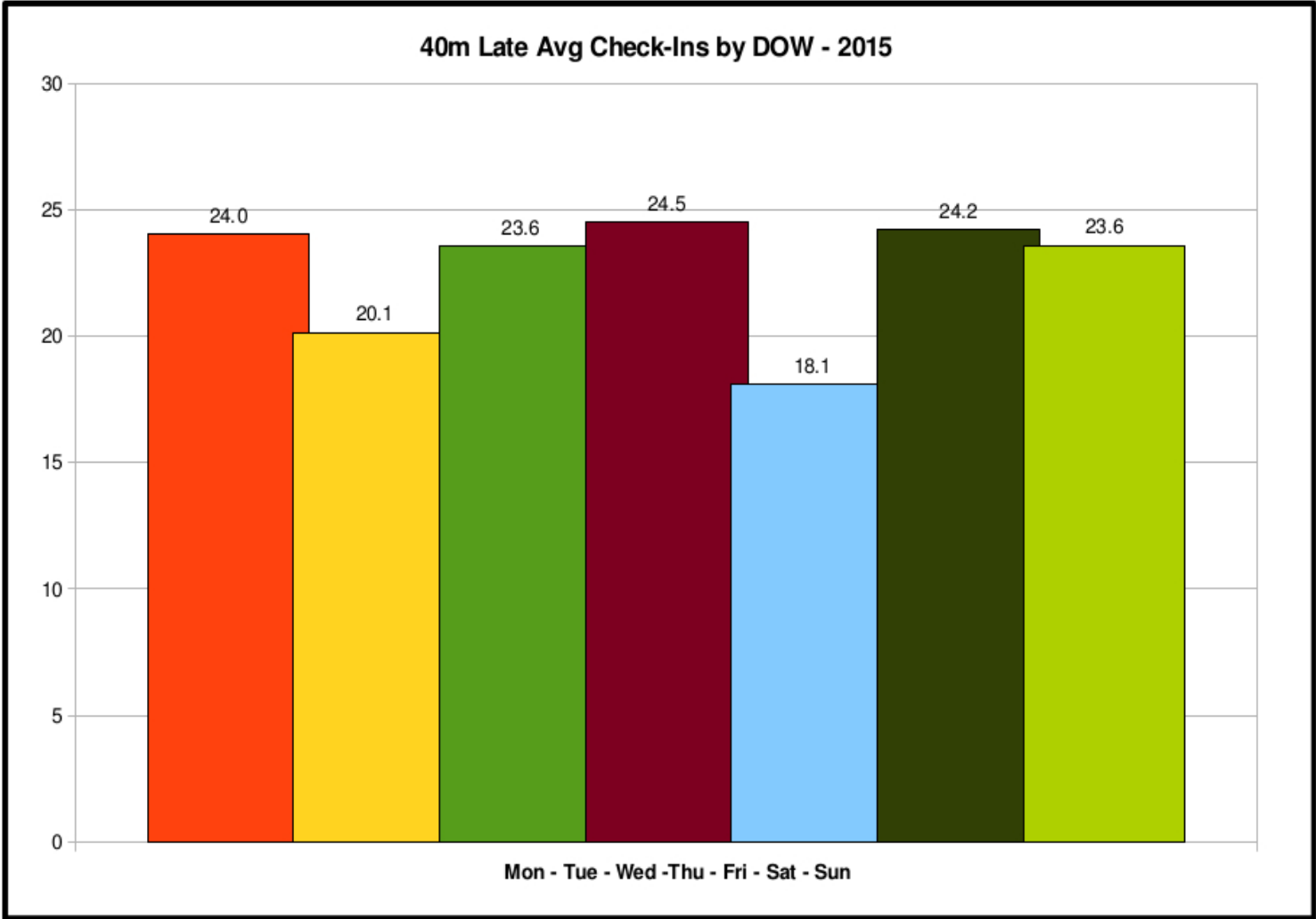
Conclusions

Check-In counts are most influenced by controllable NCS / Net Coord related factors of:

1) *Signal Strength / Readability*
2) *Attitude*
3) *Choice and Use of Relays*
4) *Efficiency / Speed / Organization*
5) *Day of the Week*
6) *Consistent Use of NCS on Day of Week*

Directions for the Future
Wish List for New NCS &
Net Coordinator Directions

✓ **Running a live logger**

✓ **NCS Certification**

✓ **Active Monitoring & Review**

✓ **NCS Schedule maintained 60 days in advance of current date.**

Do YOU have what it takes?

Applications now being accepted for 40m SSB Late Net NCS.

Interested parties please see Skip after the presentation.

Full 3905cc pay and benefits + Late Net sign-on bonus.

40 Late is an Equal Opportunity Employer.

SLIDE 1:

Somebody let me know when we're 20 minutes into this so I can try to stay on time.

In order to keep this thing on our tight time slot here I need to ask that you hold all questions / comments until the last slide.

Define what a checkin is here – An operator's call sign, his club, his SE for each state he is in.

SLIDE 2:

What we're gonna cover, as briefly as possible, is the trends in check-in counts as they appear from the 40m Late Net.

1) First we'll go through Average Check-In counts by month over a couple of time ranges.

2) We'll then take a quick look at what factors influence check-in counts.

3) After that we'll do a little bit of analysis using a Day Of Week view.

4) We'll wrap up with some conclusions & some opinions about where I'd like to see us go in the future.

The large majority of the detail that went into the following charts came from Rick, WB5FDP. Thanx Rick.

SLIDE 3:

All of the Monthly Average charts will be in this format.

This is a graph of average check-ins by month over the widest
   period I have stats for. This is the plot of average check-ins on
   40L from January 2011 thru May 2015. A 53 month period.

Notice the cyclic pattern that holds for all years.

Here you see a two line plot. I'm using this to show two different
   ways of looking at net averages. The blue line is the result of
   taking the number of check-ins for each night that a net was
   called, totaling those and dividing by the number of nets that
   happened. A true average check-ins per **NET** called.

The red plot is taking the total of all the check-ins for a month
   and dividing them by the number of days in that month.
   Functionally this averages in a ZERO when a NoNet occurred.
   You might call this an average check-ins per **NIGHT**.

One of the main points to see in this is the where the 40L net is
   trending. Not only is the trend of the averages increasing but
   the two different averaging methods are converging.

SLIDE 4:

This is the same type of graph but just looking at the years 2013 & 2014. Here you can see again the up and down cycling that we saw in the previous slide showing how 40L falls off in the winter and comes back in the spring / summer. I suspect if we had the same period chart for 75L it would look like this one but vertically flipped over.

Notice that the red and blue lines are now converging in early 2014. This is primarily the result of a reducing the number of NoNets.

There are two other things you can tell from this plot:

1) The depth of the winter 'trough' this past winter was that shallowest since before 2011.

2) The width of time spent at, let's say 22 check-ins or better is getting wider. In other words more months are spent at the higher check-in counts.

One more monthly averages chart.

SLIDE 5:

2014 + the 1st five months of 2015 added to it. This is the right hand 16 months of the first chart. Again, you can see the predictable pattern of the seasonal cycle in check-in count averages.

Notice how tight the red and blue plots are tracking together along with the trend lines. Then came MARCH :-(

On the red plot you can also see the impact of two Friday / Saturday contests that occurred in March.

Time?

SLIDE 6:

Understand the patterns and try to analyze what the causes of the ups and downs are.

At the monthly averages over a year or more level we can see the season band variations but we could also see trends of improving average check-ins.

We also saw some convergence of our lines as we reduced the occurrence of NoNets.

Let's spend a minute or two on what sort of factors we have. What are the genetics of our nets and what can we do with them

SLIDE 7:

1) Band Conditions, no metrics and should avg out over time.

2) Day Of the Week – I started out thinking this was a biggie

3) Contests – Mostly impacts Friday and Saturday night nets.

4) Same Net Control on same day, week after week – Net
    Coordinator can control.

OLD:
Uncontrollable factors include:
1) Propagation, no metrics and should avg out over time.
2) Contests, primarily disturb Friday & Saturday.
3) QRM / BCI
4) N00bz who need coddling

SLIDE 8:

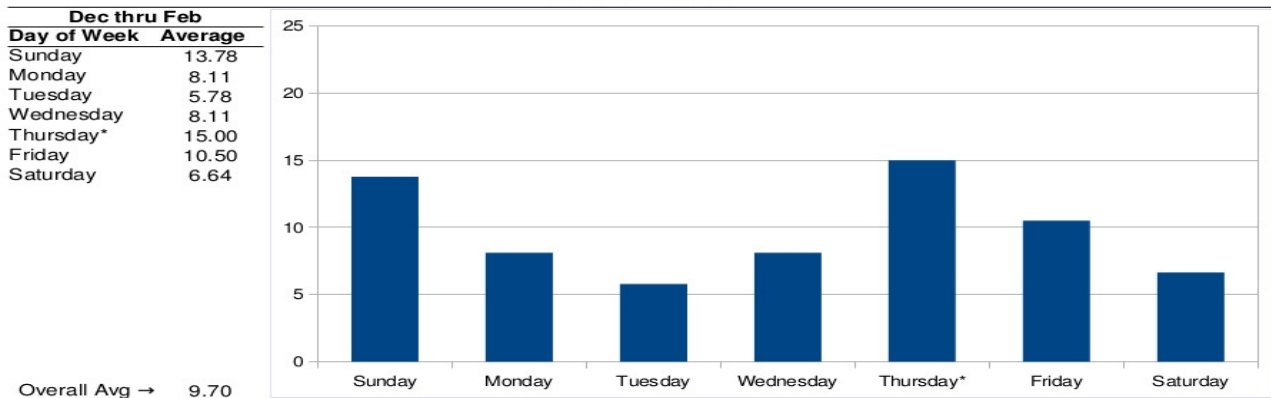1) Net Control being heard and understood.

2) Speed / Organization

3) Attitude / Friendly

4) Use of Relays

So Let's look at some DOW charts and see what they tell us
about these factors.

Average 40m SSB Late Net Check Ins by Local Day of Week
Dec 2013 – Feb 2014

Dec thru Feb	
Day of Week	Average
Sunday	13.78
Monday	8.11
Tuesday	5.78
Wednesday	8.11
Thursday*	15.00
Friday	10.50
Saturday	6.64
Overall Avg →	9.70

* Only two data points for this average. I suspect it's overstated.

SLIDE 9:

All my DOW charts are in Local (CST/CDT). Previous monthly average charts used Zulu dates but it doesn't make much difference when you're looking at months within years.

This is a Day Of Week (DOW) bar chart down in the 'trough' of 40m Late spanning the 3 month period Dec '13 thru Feb '14.

Note that at this point Sunday and Thursdays are the best with about the same numbers (Thurs 3 data points may be slightly overstated). Friday following them. Tuesdays & Saturday have the lowest average check-in counts.

Next slide will be the **same, worst period** 1 year later.

SLIDE 10:

Here's the SAME window, 1 year later (period Dec '14 thru Feb '15)

A couple thing can be derived by comparing these two 1 year apart charts.

First, the overall nightly average during this 'trough' period is almost DOUBLE the prior year.

Second, note that Saturday is now the best attended net with Tuesdays and Fridays now being the lower ones.

This is starting to show that actual day of the week is, at best a minor factor.   I've actually built and looked at various DOW graphs of different periods and what the day of week is just doesn't seem to matter much. This was a total surprise to me.

For the rest of this presentation when I, or a slide says "NCS" or "Net Control" I am talking about a regularly scheduled NCS who is scheduled for at least 3 nets a month. Not pickups or spot fillers.

SLIDE 11:

This is the result of some manual tracking of the check-in
counts for each night of the week from 1 Jan 2015 thru 31
May 2015.

The overall average across all days was just under 23 check-
ins for the period January thru May and was 26 for the
month of May. *(Checked against stats pulled by Rick early June.)*

At this level you can start really looking at what attributes each
NCS is bringing to his net and what other factors do to each
night of the net. Strengths and Weaknesses start becoming
easier to sift out.

OK, Let's do two more slides to see what we might conclude
and where we might wanna go in the future or what things
we might wanna discuss down the road.

SLIDE 12:
Controllable: (**40L only, my order**)

1) Signal - Now were did my Array Solutions/ACOM advert video go? Readability can be improved by speaking slowly & clearly. Also see #3
2) Attitude – Does the NCS presents that he/she enjoys running the net. This is way bigger than I thought it was and I now consider this a major, maybe #2
3) Use of Relays – Underutilization leads to small nets, Over utilization leads to mass confusion (and if often, smaller nets)
4) Efficiency / Speed / Organization – Speed generally a good thing UNTIL it reaches the point where folks aren't understanding what is being said or read.
5) Day Of the Week – A minor factor.
6) Consistent Schedule - By Net Coord, A newly discovered gene pair, minor but seems to exist.

B4 I forget I want to say here that I am VERY PROUD of the 40m Late Net Controls. Let me just quote what someone emailed me back around the end of March.

"You have the most robust collection of non-excuse-making, ready-to-rock-and-roll NCSes on all of 3905 CCN."

We can't do anything about band conditions, contests, or much about people's work schedules, but we can work on the NCS and Net Coordinator related factors. With that in mind, here's MY wish list for the future..."

SLIDE 13:

Running Live Logger - I firmly believe having the logger running increases the number of check-ins you get on any net.   The NCS running the logger has generally shown to be beneficial to the (wangmin/wangyou) netizens. Check-ins generally seem to run smoother and quicker when the NCS is running the logger.

NCS certification – Assures that the NCS is at least somewhat familiar with the established Guidelines so that nets run in the consistent and proven manner spelled out in the NCS Guide.

Active Monitoring & Review – Even if you're, like me, only in charge of the hamster cage wheel you should monitor and review that it's working as intended. I see this an obvious duty of anybody in charge of anything. I need to improve on the feedback part of this myself.

NCS Schedule – There are distinct advantages to both the Net Controllers & the Net Coord to do this. It gives both the ability to check for conflicts and opens much further into the future. If an NCS knows he's gotta go to grandma's in 2 months and he sees he's scheduled for a net that night, 60 days out, the Net Coord is much more likely to get an early notification. **In all things** more time ALWAYS means it's more likely the problem can be solved!

And that folks is the end of this presentation. If there are any questions I'll take a crack at those at this point while I move to the slide from our sponsors...

SLIDE 14: Sponsor