



CLUBLOG

160M data visualisations

Michael G7VJR

We I come!



- ❑ Club Log is a Dxing database where your log is analysed in great depth
- ❑ You upload your log...
- ❑ **Thousands** of others do the same
- ❑ Club Log becomes enriched with **millions** of QSOs

QSOs

Logging Software

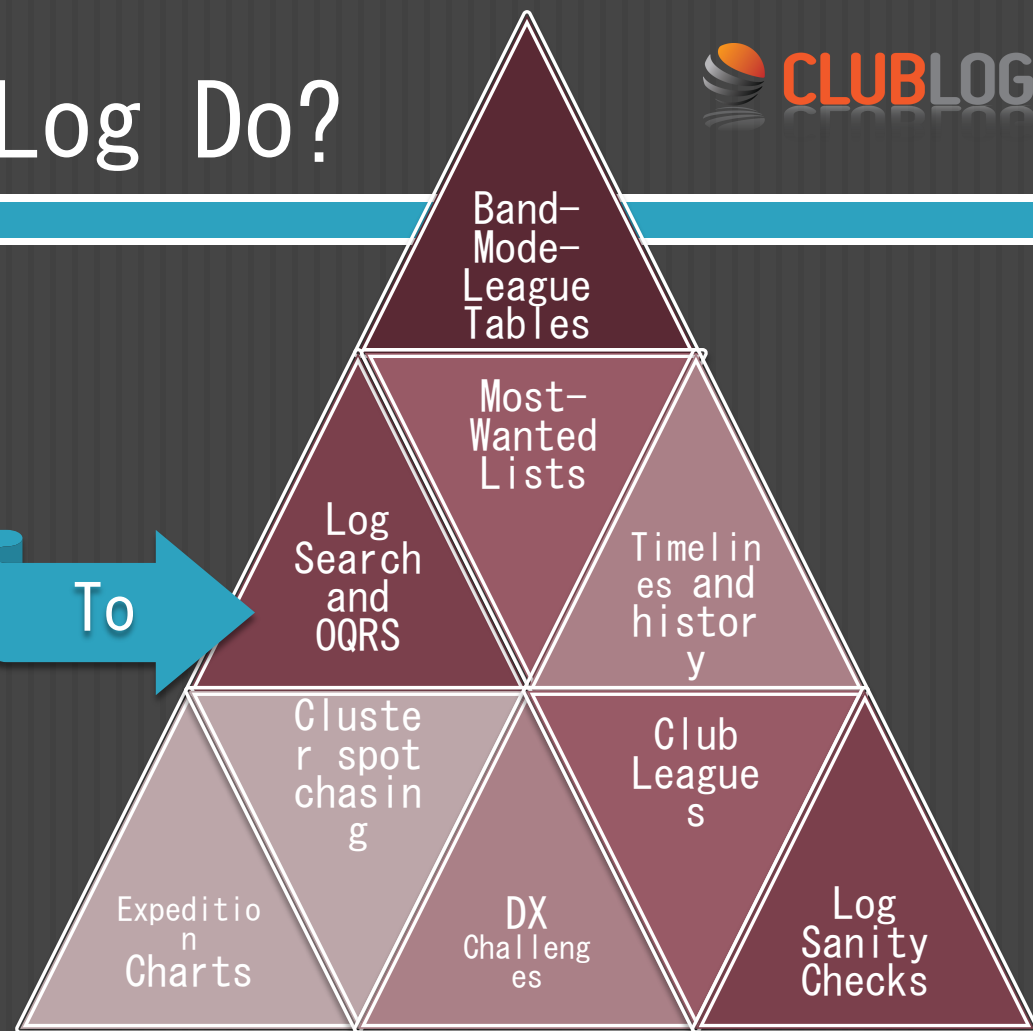
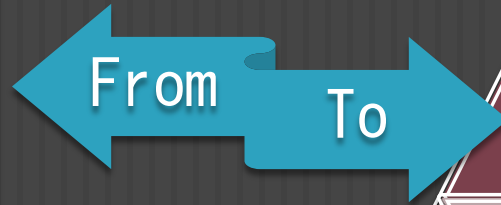
Club Log



What Can Club Log Do?

The only information that enters Club Log is from:

- Real QSOs
- Real amateur logs



A Tool For Serious DXers

Club Log is intended to successfully assist, inform and encourage serious DXers.

N6ML

N6ML has worked JD1BLY on 11 out of 41 band slots

Propagation suggestions for JD1BLY from **UNITED STATES OF AMERICA (Z3)** or from CQ zone **3** or show on [Geo Propagation Map](#)

Leaderboard stations in CQ zone **3** or **UNITED STATES OF AMERICA (Z3)** or in **NA** or Club:

	70m	2m	6m	10m	12m	15m	17m	20m	30m	40m	80m	160m
PH						✓		✓				
CW				✓	✓	✓	✓	✓		✓	✓	
PSK												
RTTY					✓		✓					

← Club Log is best known for providing Dxpediton log searches... BUT

It does much more!

Summer 2016



- ▣ 375 million QSOs
- ▣ 55,000 registered callsigns
- ▣ This is a source of “big data”

I would like to take you on a tour of 160M data trends...





Can we use Club Log to visualise JA 160M activity?

Three simple questions...

Idea: we are interested in working DX from Japan...

1. Does solar activity (SFI) affect 160M?
2. Does 160M correlate with 80M?
3. When is the best time of day to make a QSO?

I have explored these questions in Club Log's database.



Let's see the graphs and data!

Does solar activity (SFI) affect 160M?

SFI 40-50

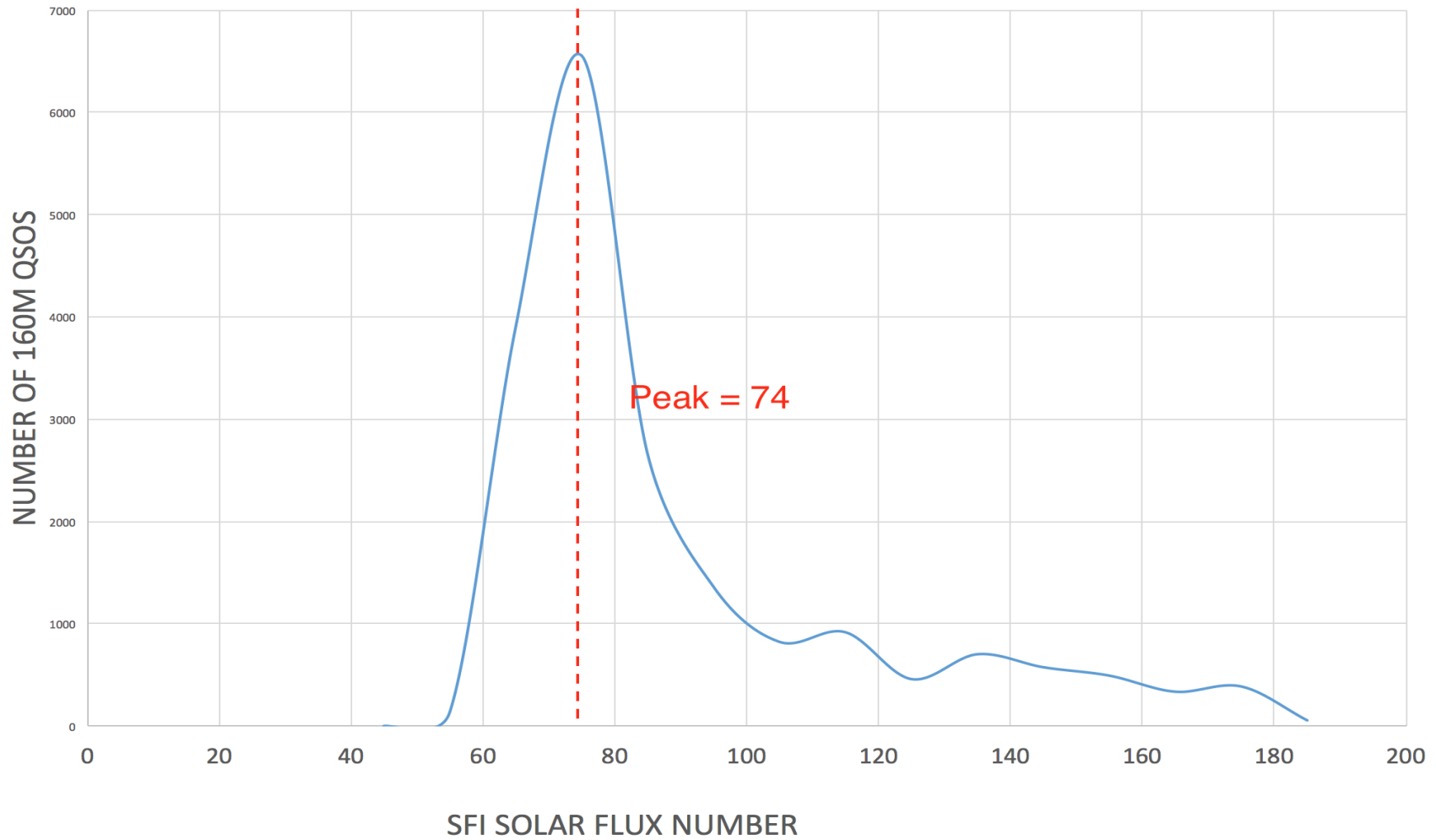


Hour	SFI
0	0
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	40-50
22	40-50
23	0

Zone 14 (Europe) - Japan - 160M

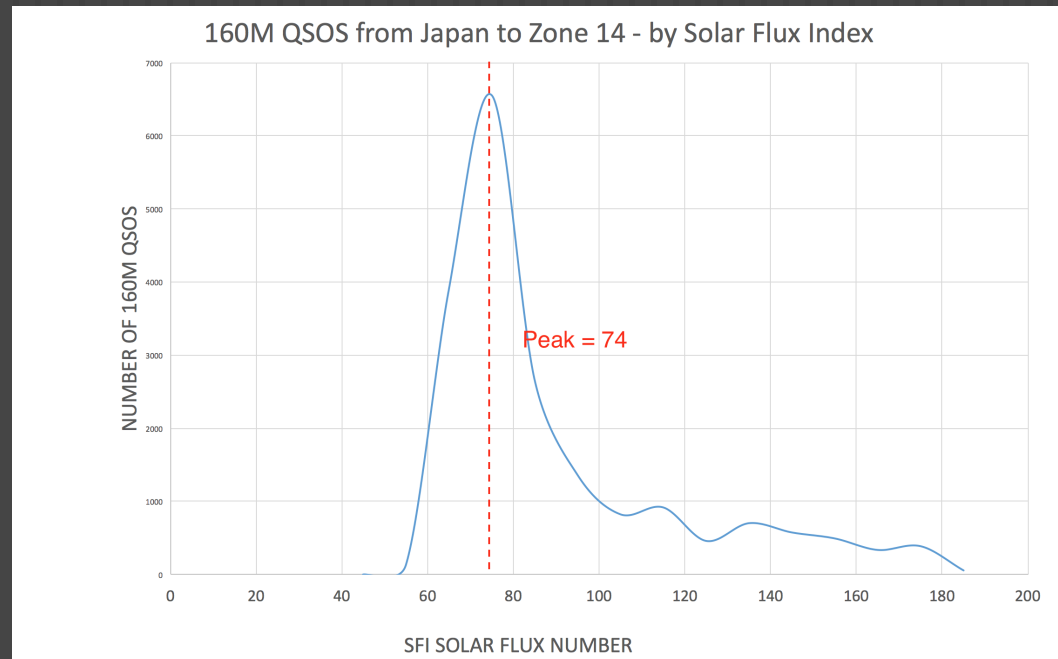
The peak is always at the same times - around 2100Z

160M QSOS from Japan to Zone 14 - by Solar Flux Index

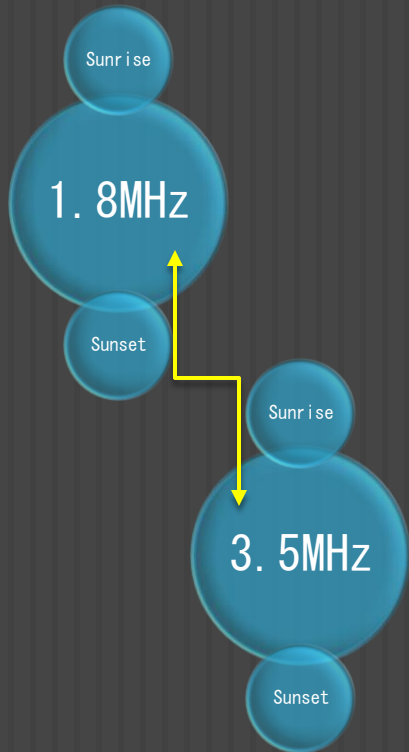


Does solar activity (SFI) affect 160M?

1. 160M conditions may be better around SFI 65 to 90 (stable conditions)
2. In the peak solar cycle, maybe DXers prefer to operate on the high bands

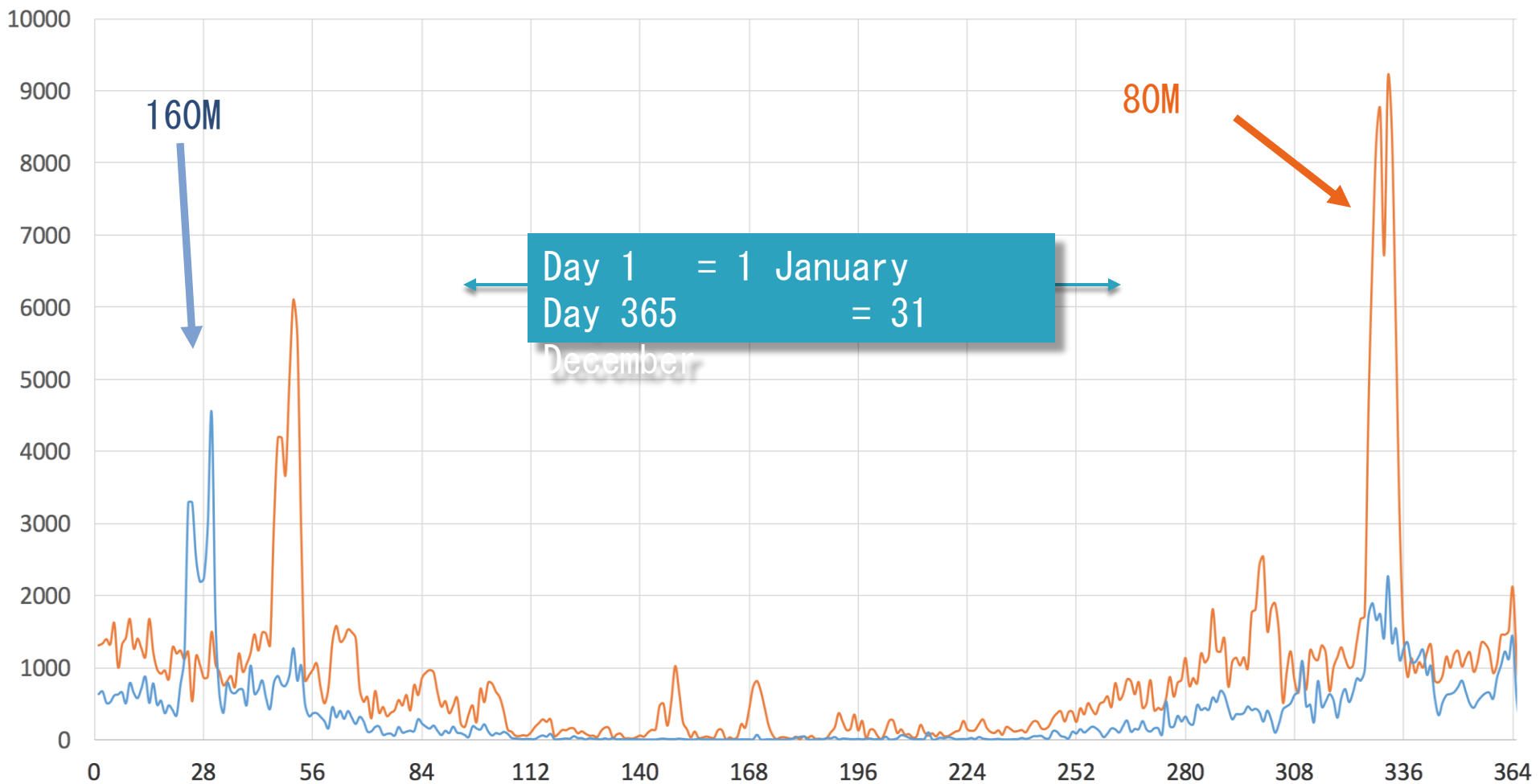


Does 160M correlate with 80M?



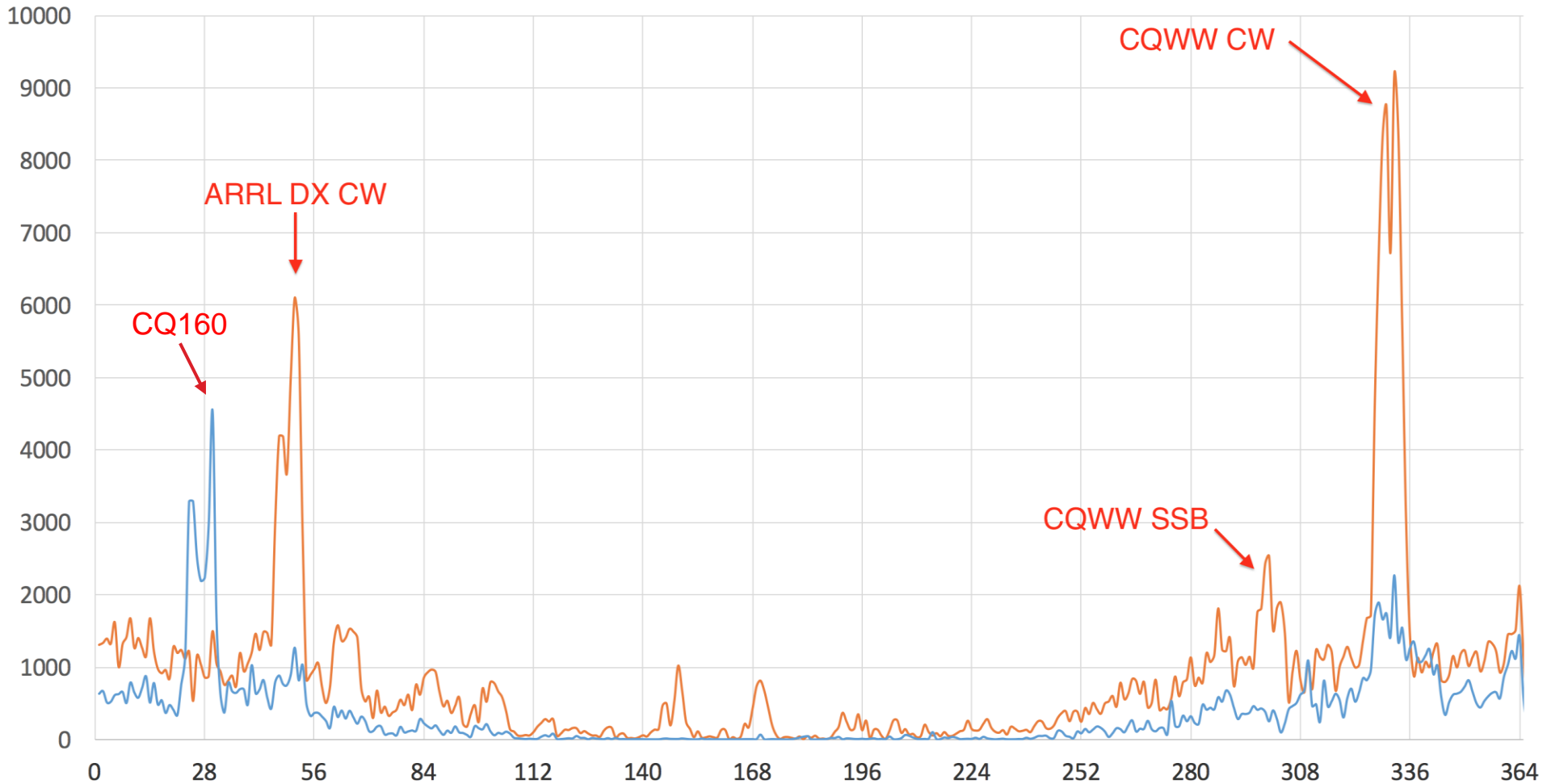
1. When conditions are good on 80M, are they also good on 160M?
2. Is there evidence that 160M peaks earlier or later than 80M?
3. What else can Club Log tell us about 160M patterns of activity compared to 80M?

80M & 160M to outside Asia - by day of year



Day 0 = 1 JANUARY
Day 365 = 31 DECEMBER

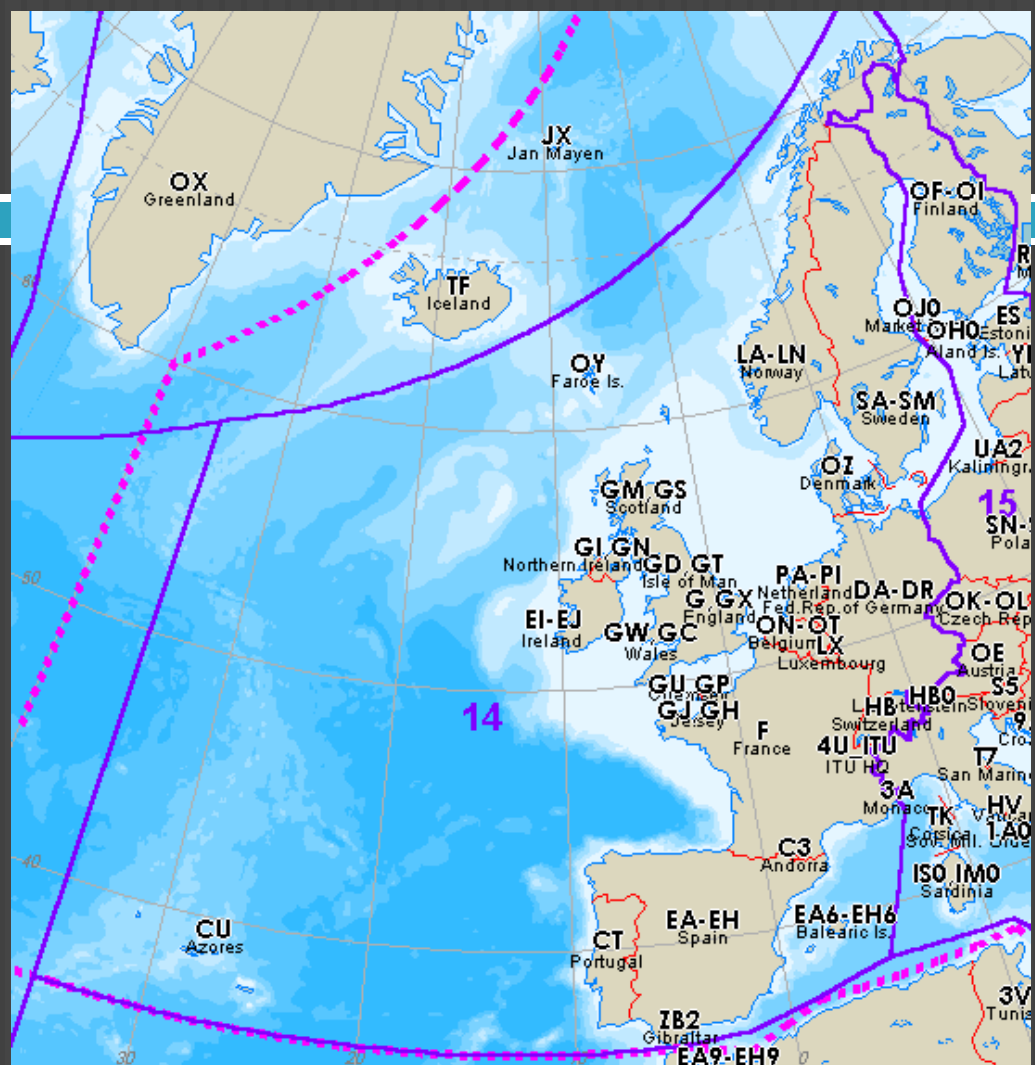
80M & 160M to outside Asia - by day of year



What
about...

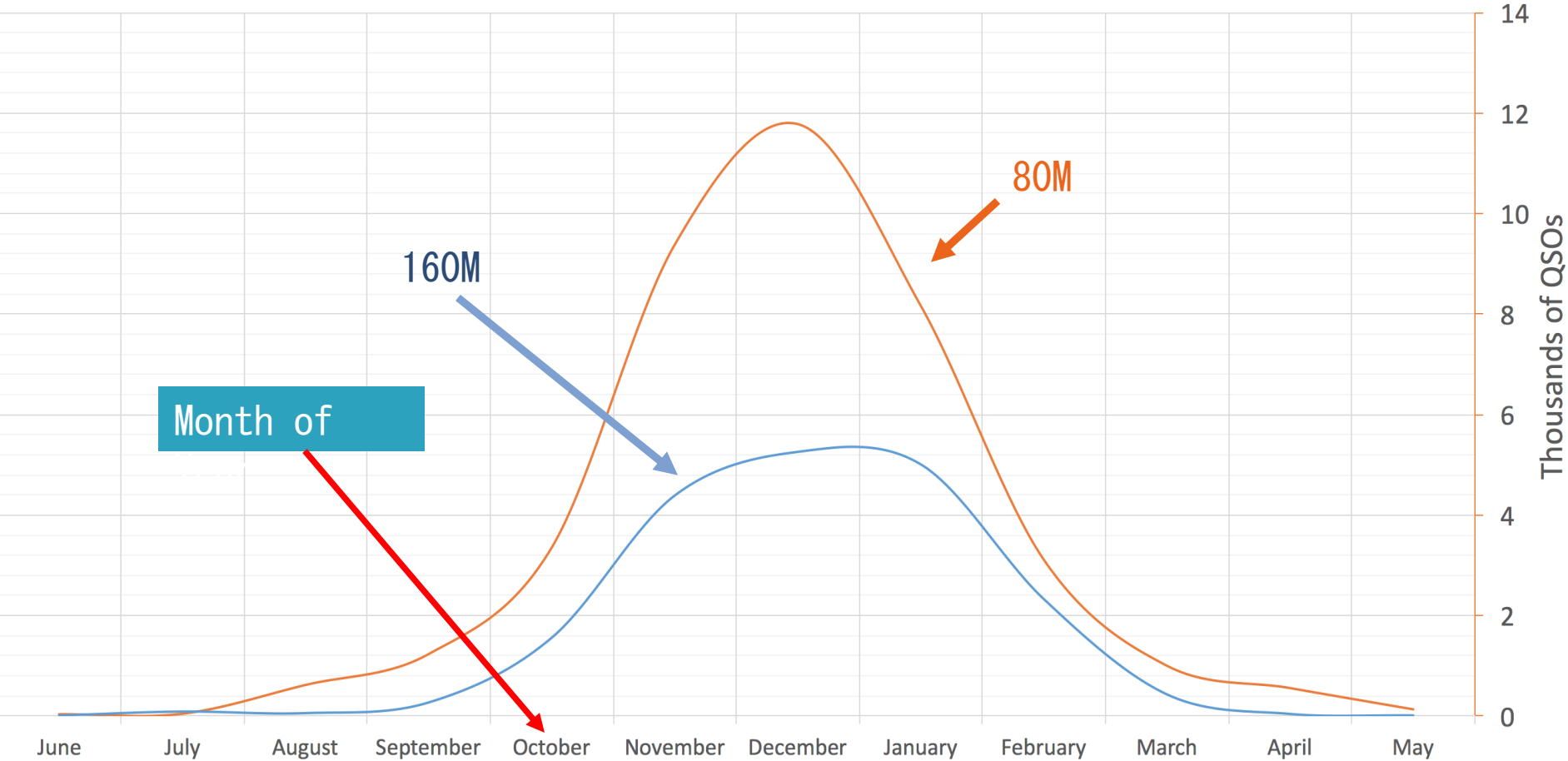
160M to
Western Europe

–
Zone 14



CQ Zone 14 to Japan - QSOs by Month of Year

—80M —160M

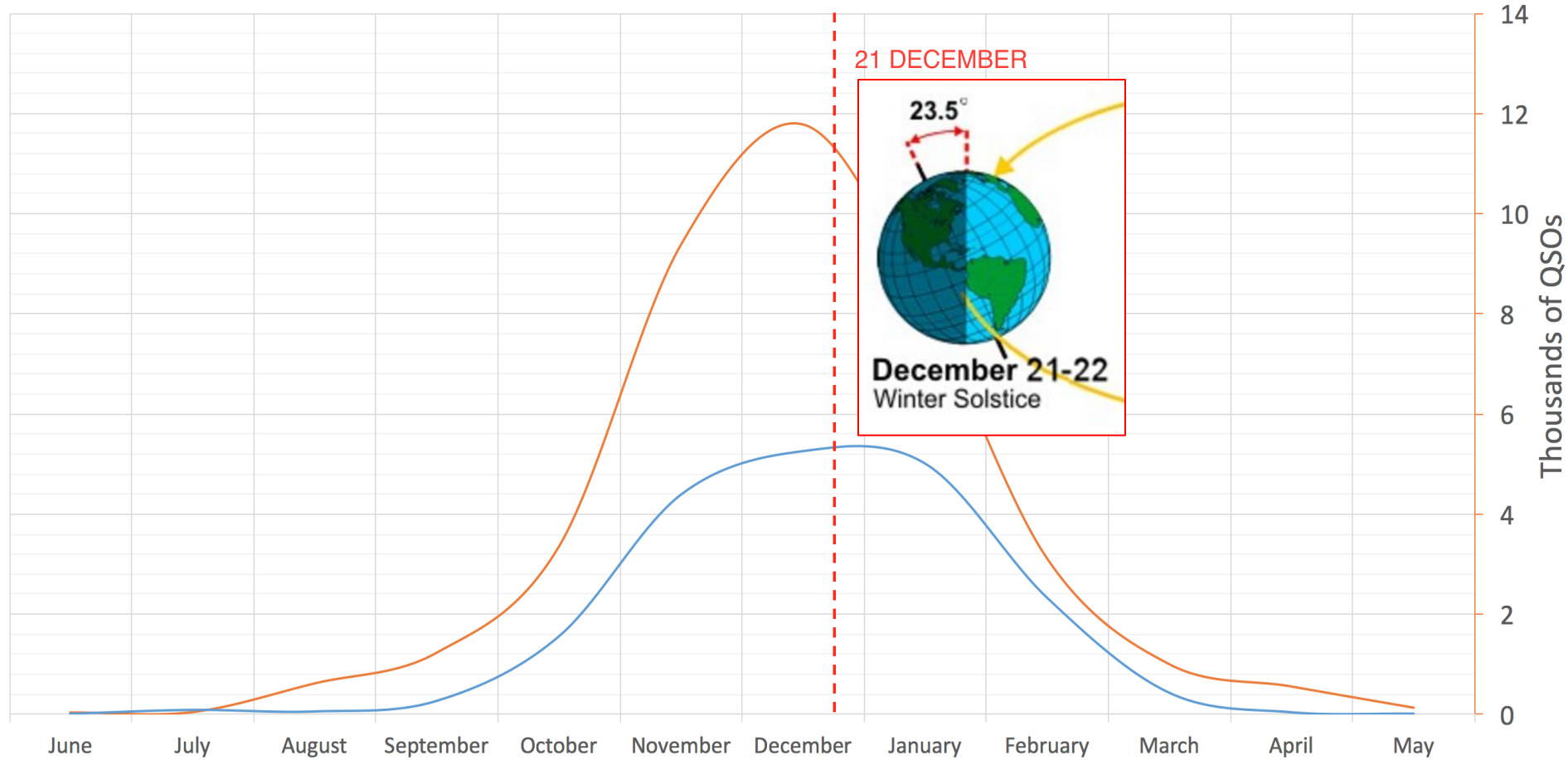


Month of

Thousands of QSOs

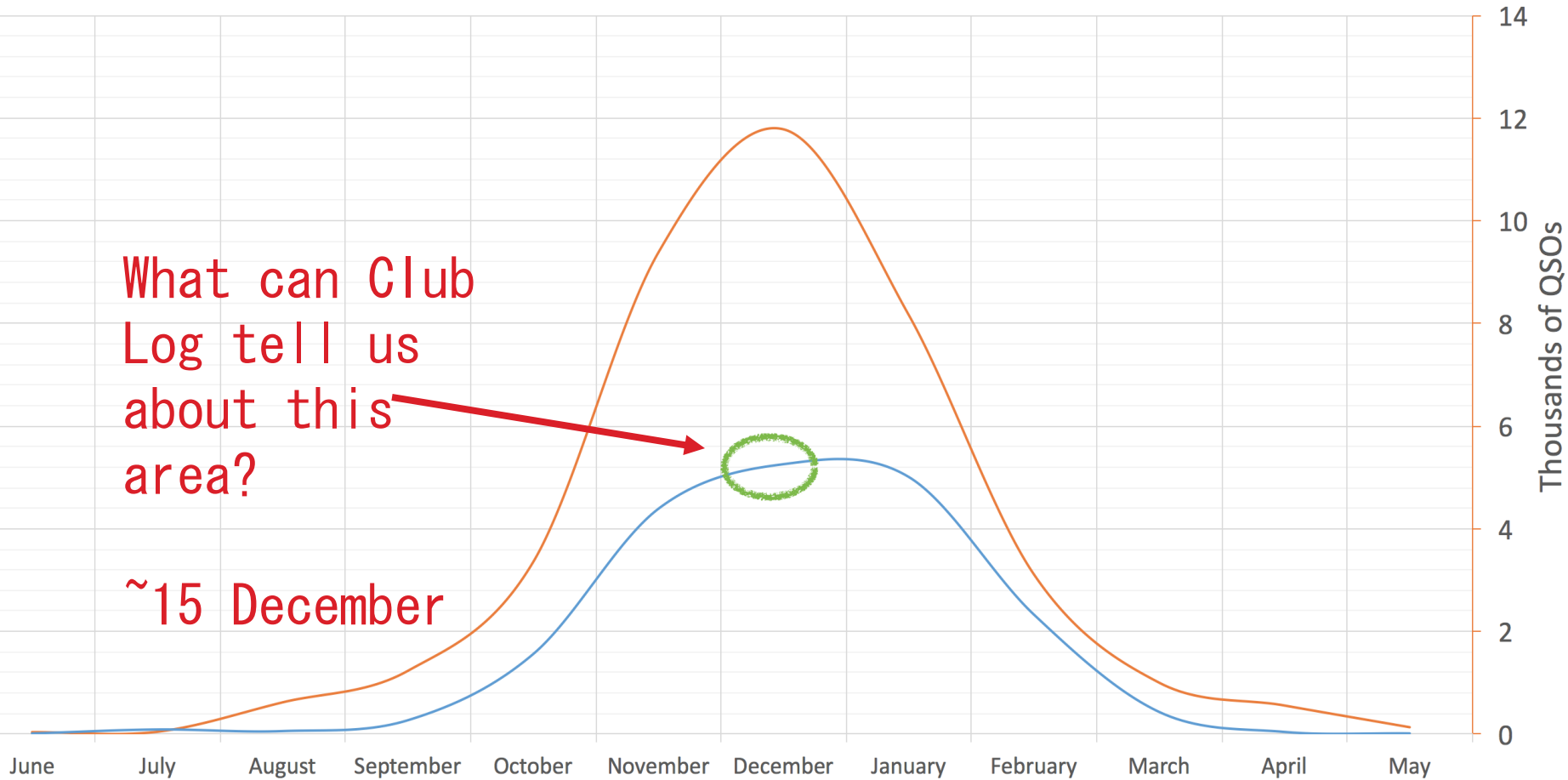
CQ Zone 14 to Japan - QSOs by Month of Year

—80M —160M



CQ Zone 14 to Japan - QSOs by Month of Year

—80M —160M



Zooming in: December, 160M

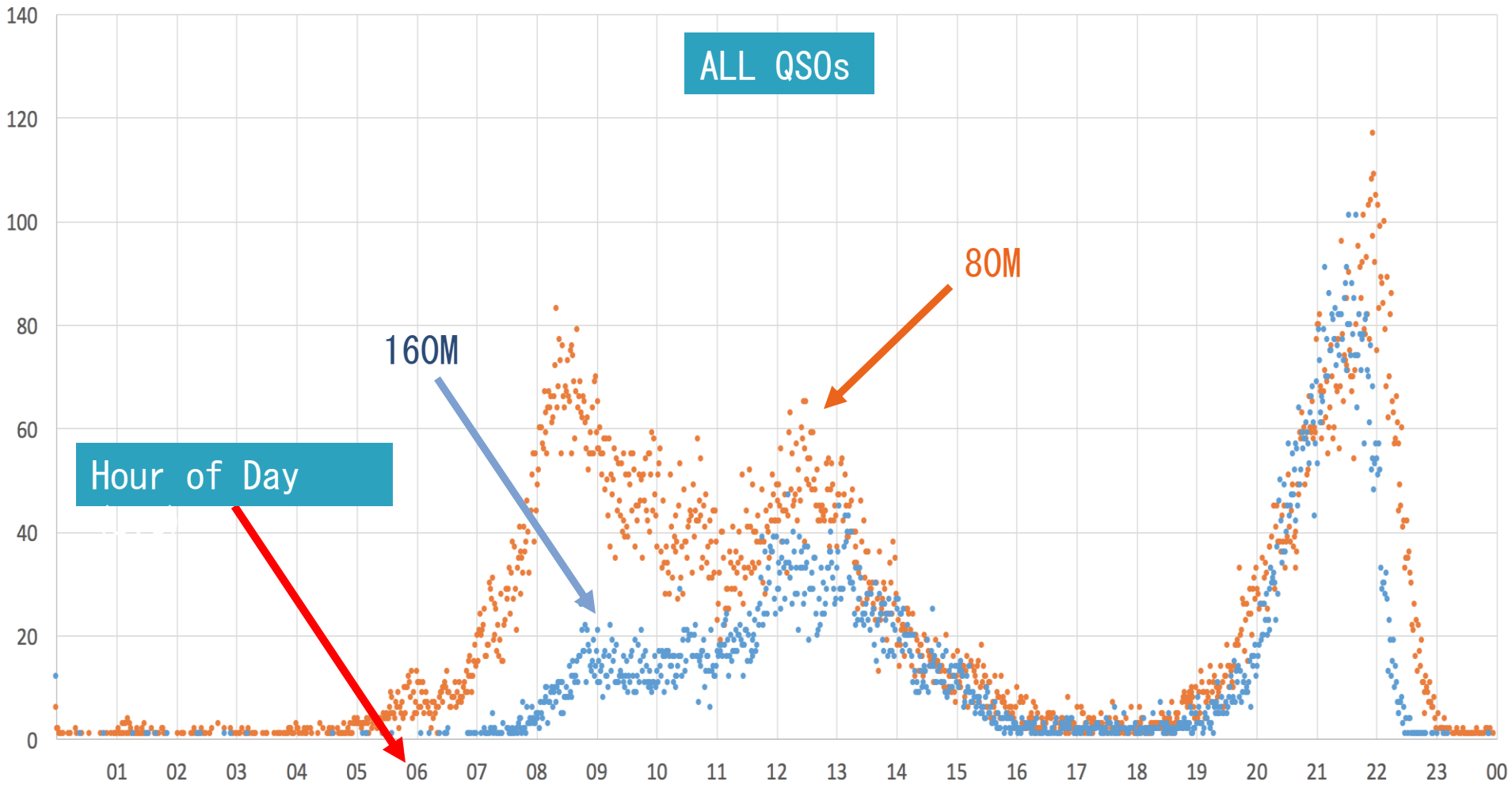
Let's add together all the QSOs by time of day:

- 160M and 80M QSOs
- 1 December to 15 December
- All QSOs from every year (1950 to 2016)

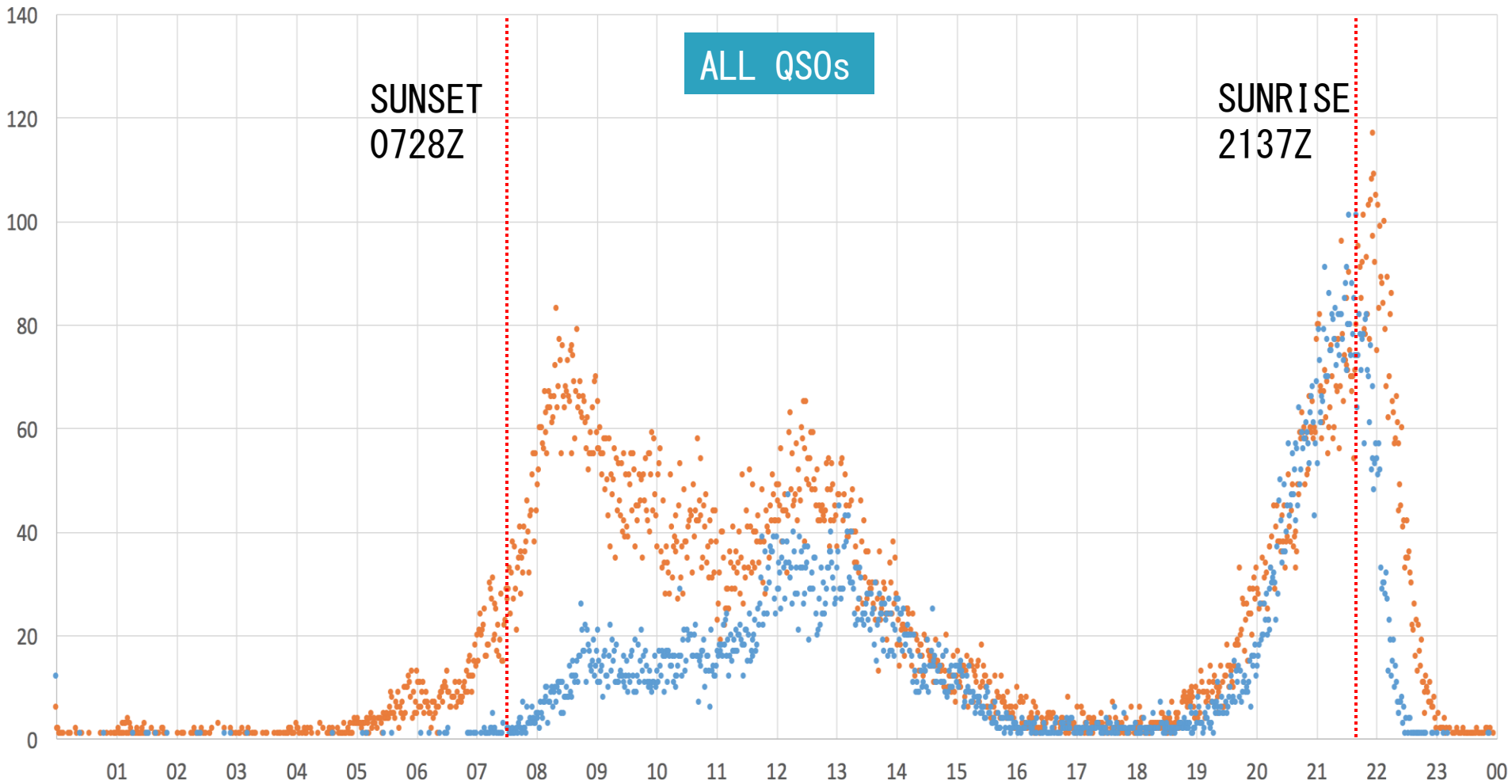
1950→December→2015

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	160m QSOs			1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

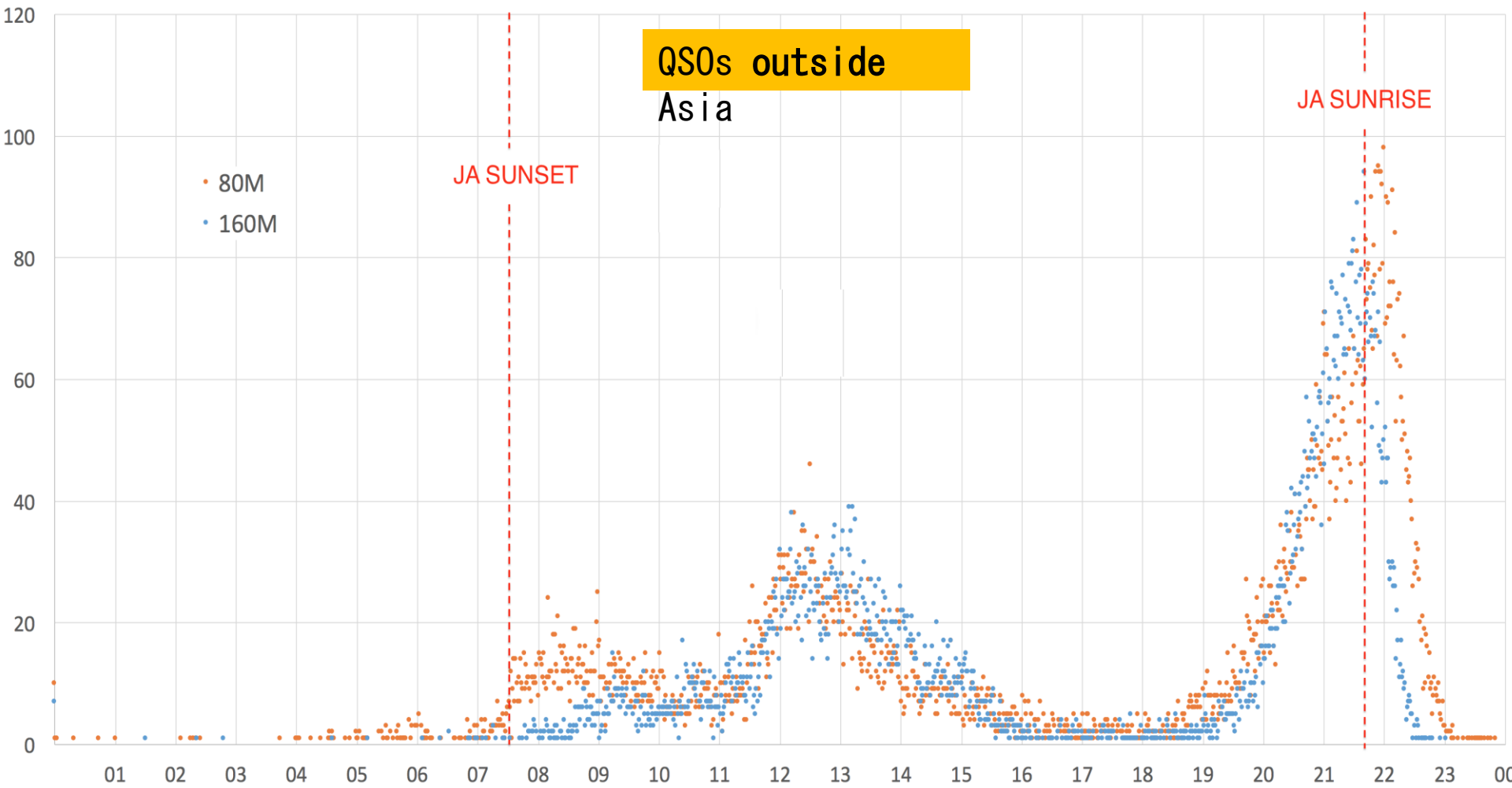
1 to 15 December 1950 to 2015 - 80M and 160M QSOs by time of day



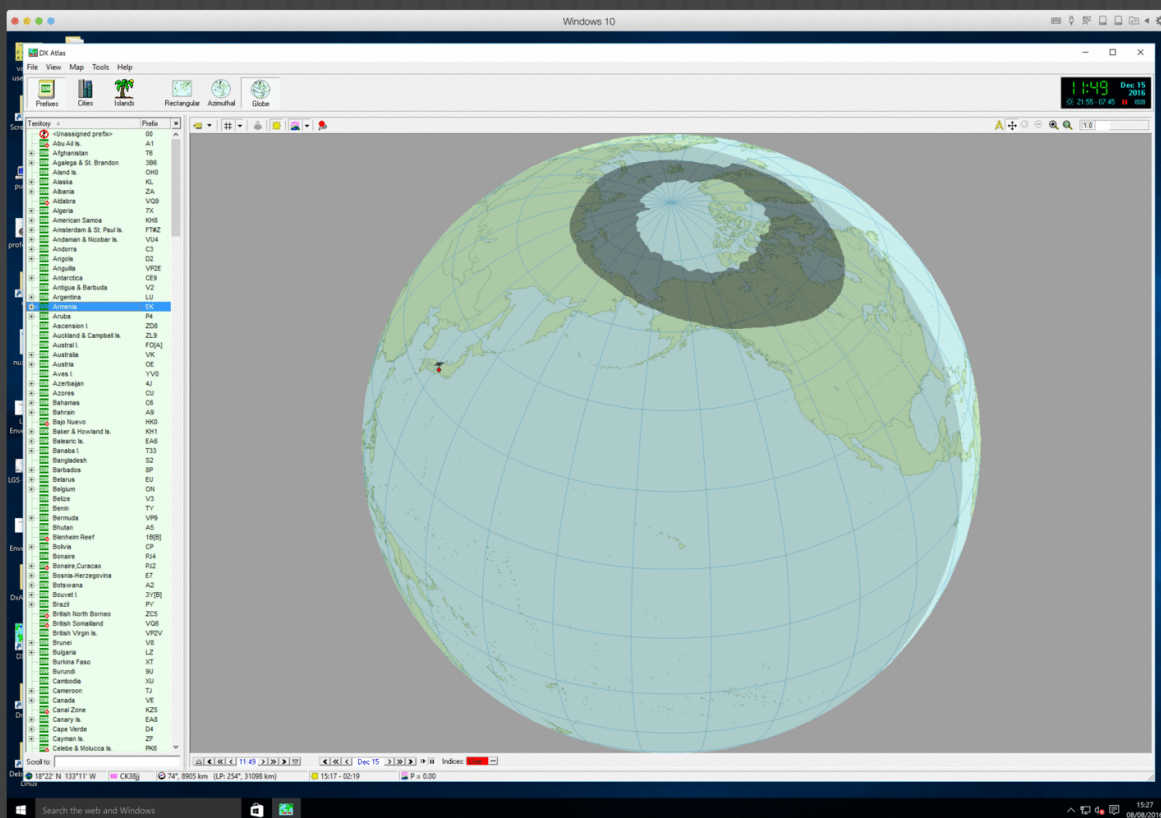
1 to 15 December 1950 to 2015 - 80M and 160M QSOs by time of day



1 -15 December DX QSOs from Japan on 80M and 160M

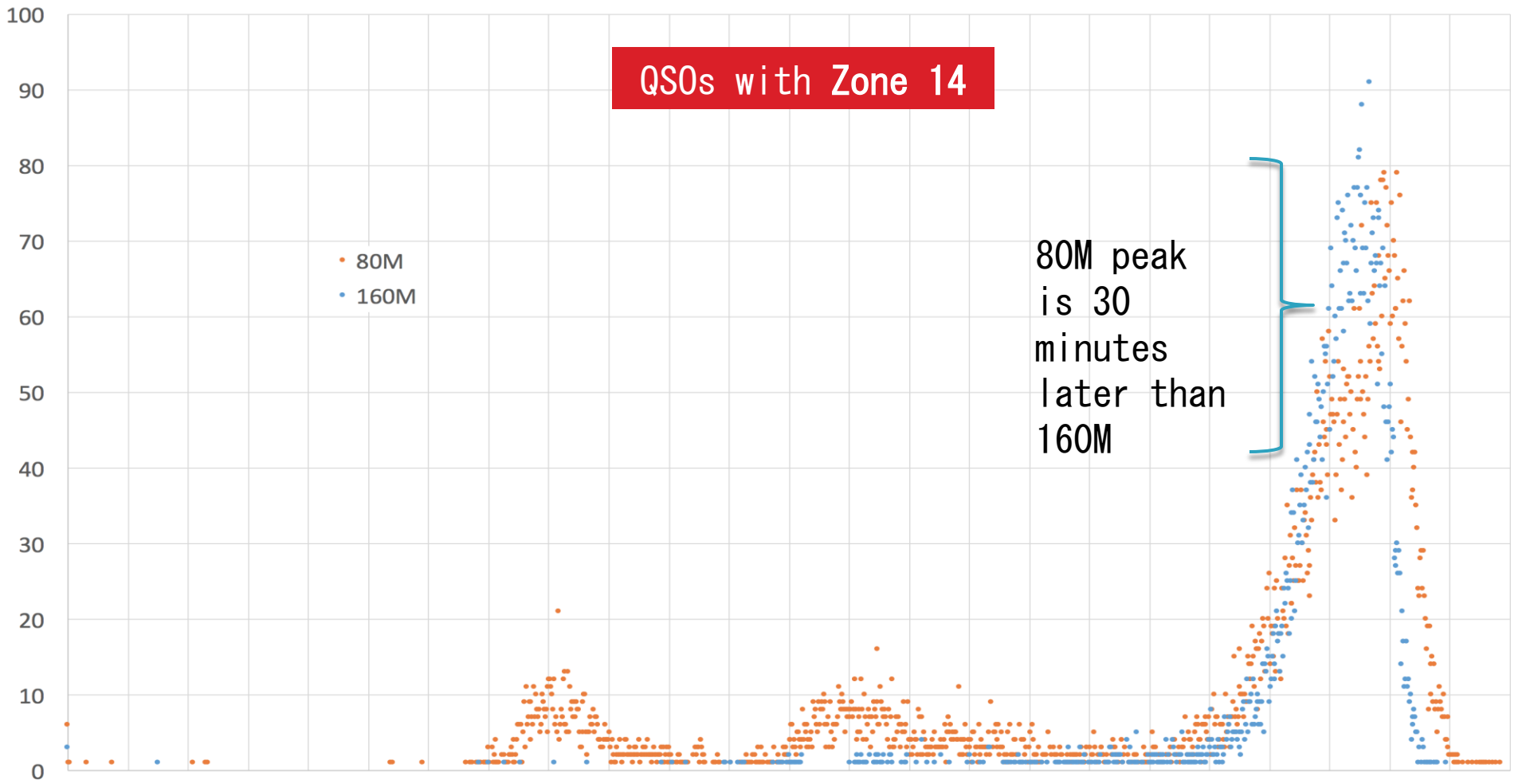


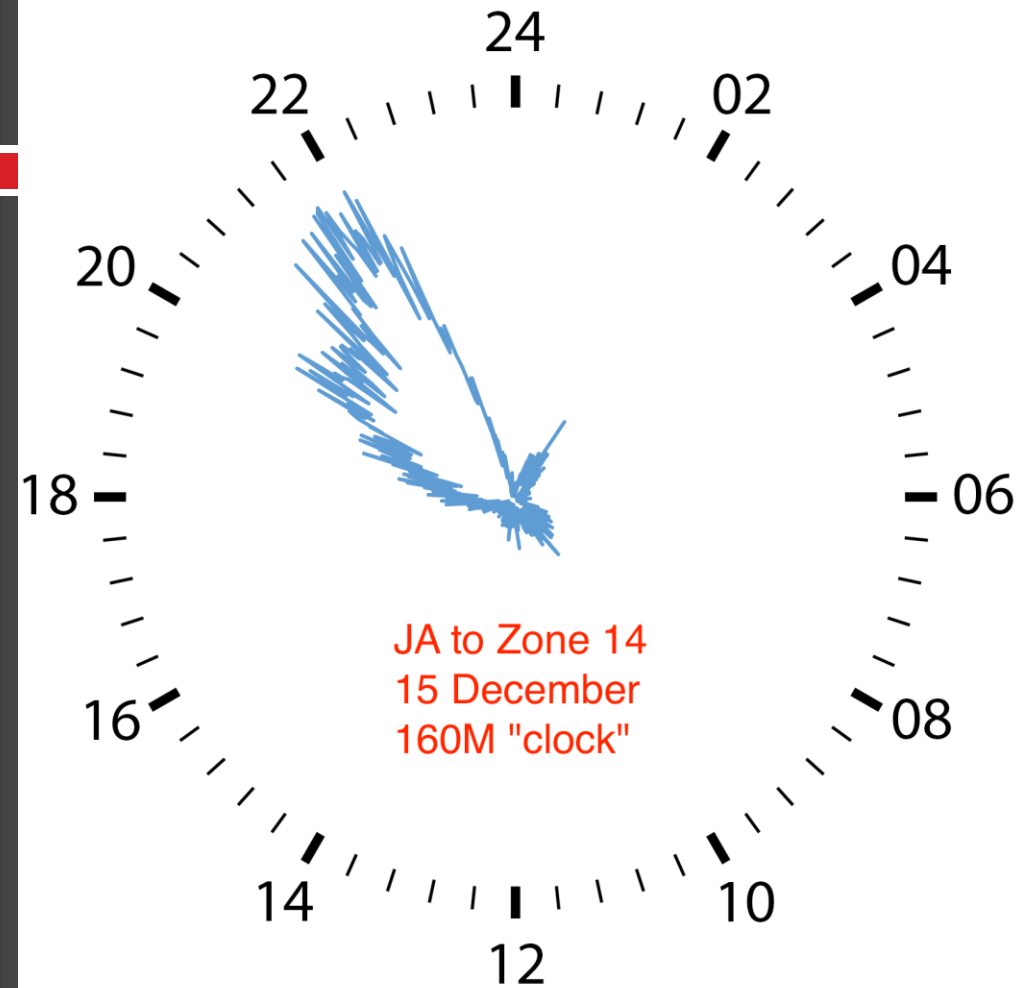
What's the peak from 11Z to 16Z?



... it's North America

160M and 80M QSOS - 1 December to 15 December, Europe Only





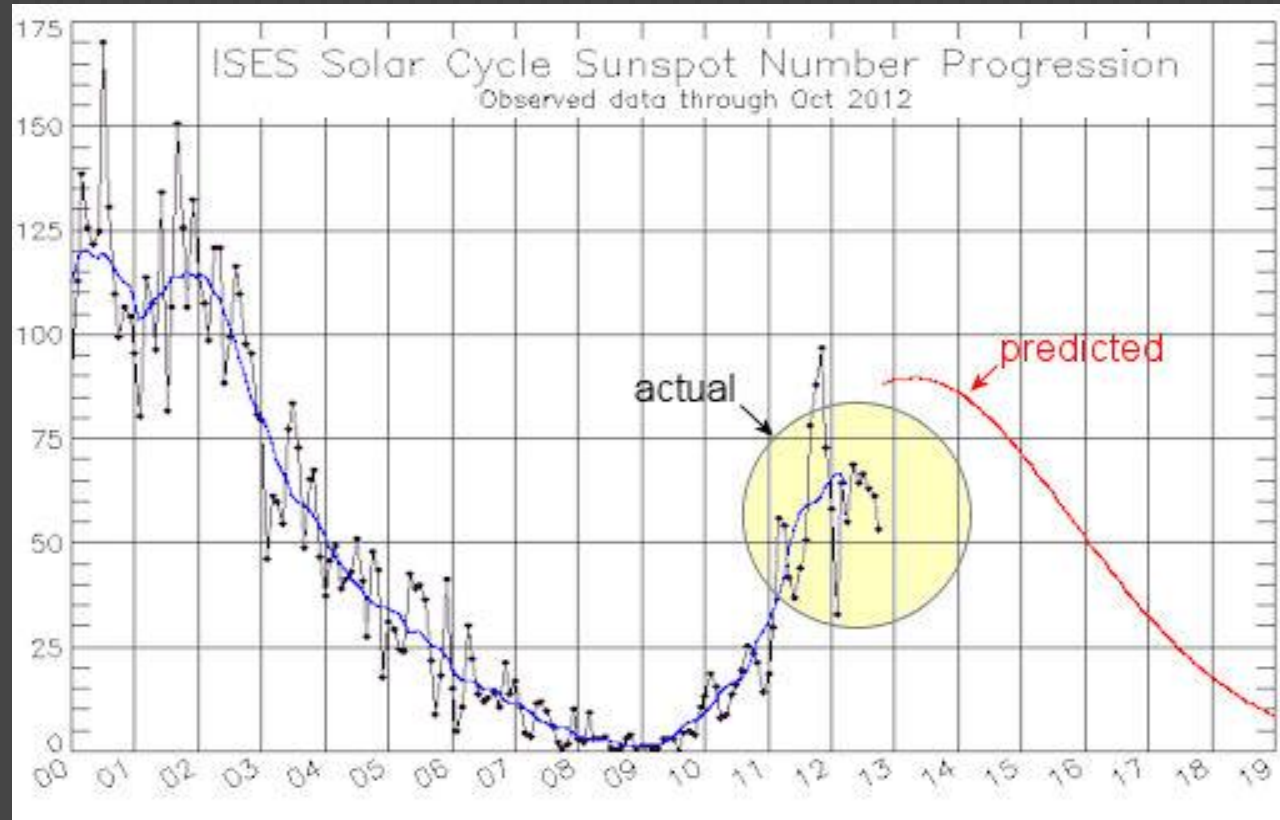
160M to Z14
(December)

*24 Hour Clock
Visualisation*

Zooming in: December, 160M to Zone 14

- Solar activity (SFI) affects 160M QSOs. **Best 65–90 SFI**
- 80M activity follows similar but not identical pattern to 160M
- Best time to work Zone 14 is **mid–December, 2100–2200Z**
- **Contests add activity** - likely that high solar flux pushes DX away to HF bands

Solar activity predictions



We are entering a solar minimum

160M should be good in the years 2017-2023

VP8DMN - 160M QSOs

Call	Date	Slot
JA3ONB	2010-01-28 08:05:00	160M CW
JR7VHZ	2010-01-28 07:59:00	160M CW
JA8ISU	2010-01-28 07:55:00	160M CW
JA7NI	2010-01-28 07:53:00	160M CW

YASUO NAKANISHI

YASU KIKUCHI

KAZUO OKAMOTO

KUNIKAZU TOGASHI

0753Z to
0805Z
28/01/2010

Goose Green, Falkland
Islands - G7VJR op.

18M vertical + 750W
PA



Thank you



- Thank you to:
 - ▣ Yutaka JQ2GYU
 - ▣ Joe JA1LZR
- And special thanks to our great interpreter, Joe JJ3PRT
- Thanks to JA individual donors who help us keep Club Log free!



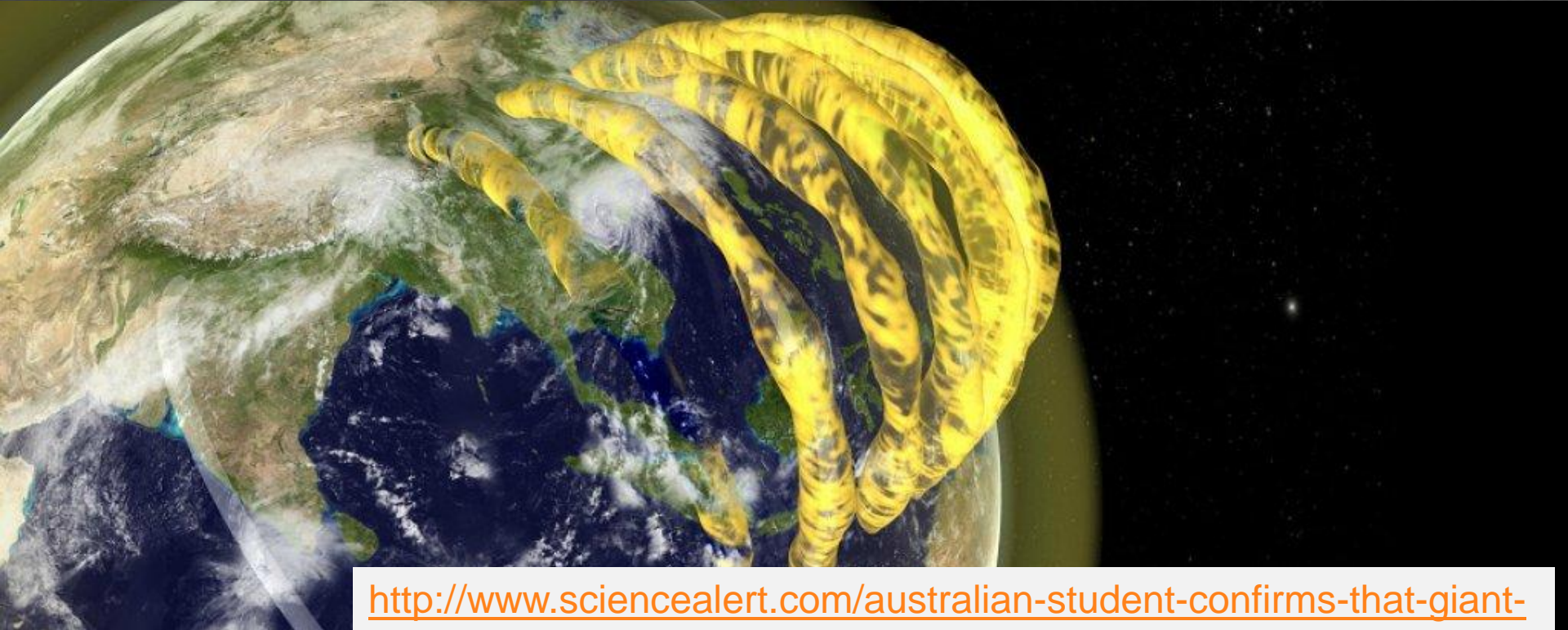
CLUBLOG

Thank you - de Michael G7VJR

Good DX and 73

Extra time
slides

Plasma tubes - the “wormhole” idea



<http://www.sciencealert.com/australian-student-confirms-that-giant-plasma-tubes-are-floating-above-earth>