NCCC

NORTHERN CALIFORNIA CONTEST CLUB

August 14, 2006 Meeting

Holder's Country Inn, San Jose, CA

NCCC

NORTHERN CALIFORNIA CONTEST CLUB

Program:

- Old/new business
- CQP progress
- WRTC 2006 Observations

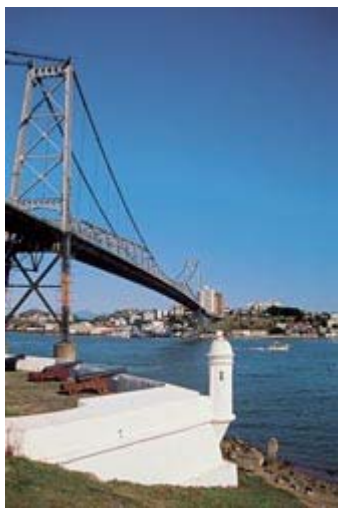
Kick, Duck!

Some Observations From WRTC 2006

By Dean Straw, N6BV

For August 14, 2006

NCCC Meeting

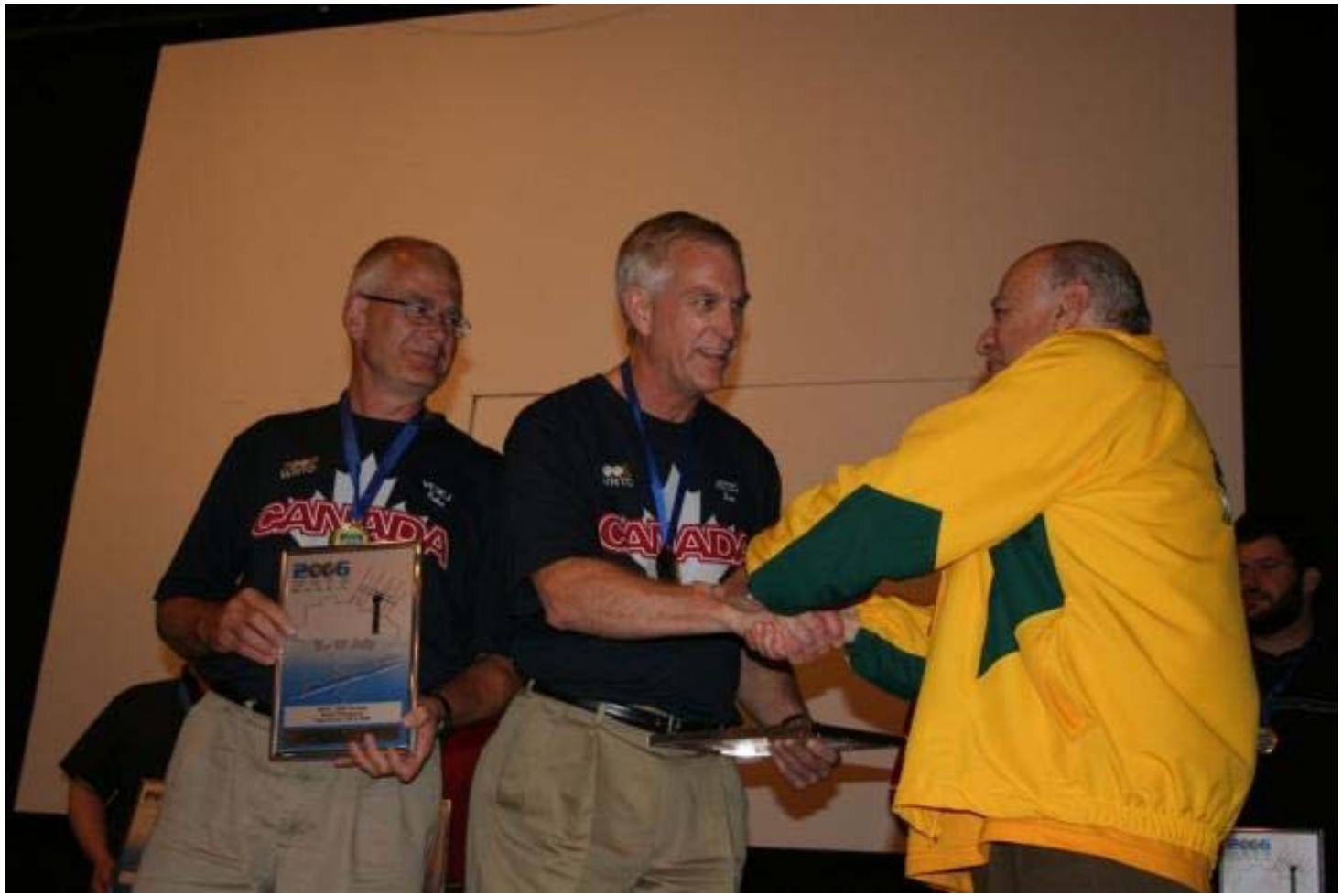


The bridge at Florianopolis – looks a little like San Francisco, doesn't it?

Final ranking at WRTC 2006

Rank	Call	Ops	QSOs	Mults
1	PT5M	VE3EJ, VE7ZO	2369	230
2	PW5C	N6MJ, N2NL	2200	241
3	PT5Y	K1DG, N2NT	2124	230
4	PW5X	UT4UZ, UT5UGR	2304	204
31	PT5J	N6BV, AG9A	1736	181

600 Qs, 50 mults?



1st Place — PT5M: VE3EJ and VE7ZO

2nd Place — PW5C: N2NL and N6MJ

3nd place — PT5Y: K1DG and N2NT

Our PY Hosts for WRTC 2006

Mr. WRTC 2006 himself: Oms, PY5EG (*PY5EG*)

Thomas, PY2ZXU, and Oms, PY5EG, the guiding lights behind WRTC 2006 (*PY5EG*)

Sergio, PP5JR, a real mover and shaker at WRTC 2006

Some NCCCers at WRTC 2006

We don’t need a caption to identify this guy...

N2AA, W2SC (#10: PT5Q)

K5TR, N2NL, N6MJ

AG9A, WA1S, N6BV, W1FJ at closing ceremony

Our very own AI6V!

W6NV and Sergio, PP5JR

Opening ceremony — Part of US contingent.

Some of the flags at the opening ceremony.

Some WRTC 2006 QTHs

Antenna installation: PW4X. 50-foot tower, log-tribander and 2-ele. 40 (*UT4UZ*)

Good location: Looking to Europe from PW5Y —
The mountain is 5 km away (*PP5XX/PY5CC*)

Good location: Looking to USA from PW5Y — The mountain is 25 km away (*PP5XX/PY5CC*)

PT5U: Good location towards Europe — the Atlantic Ocean!

Another good location towards Europe:
Sunrise at PW5I

PT5Y: beaming to USA/JA a good shot.
To Europe, a high, “great” shot. (*K1DG*)

Hill at PW5I to USA. Oops

What Factors are Involved in WRTC?

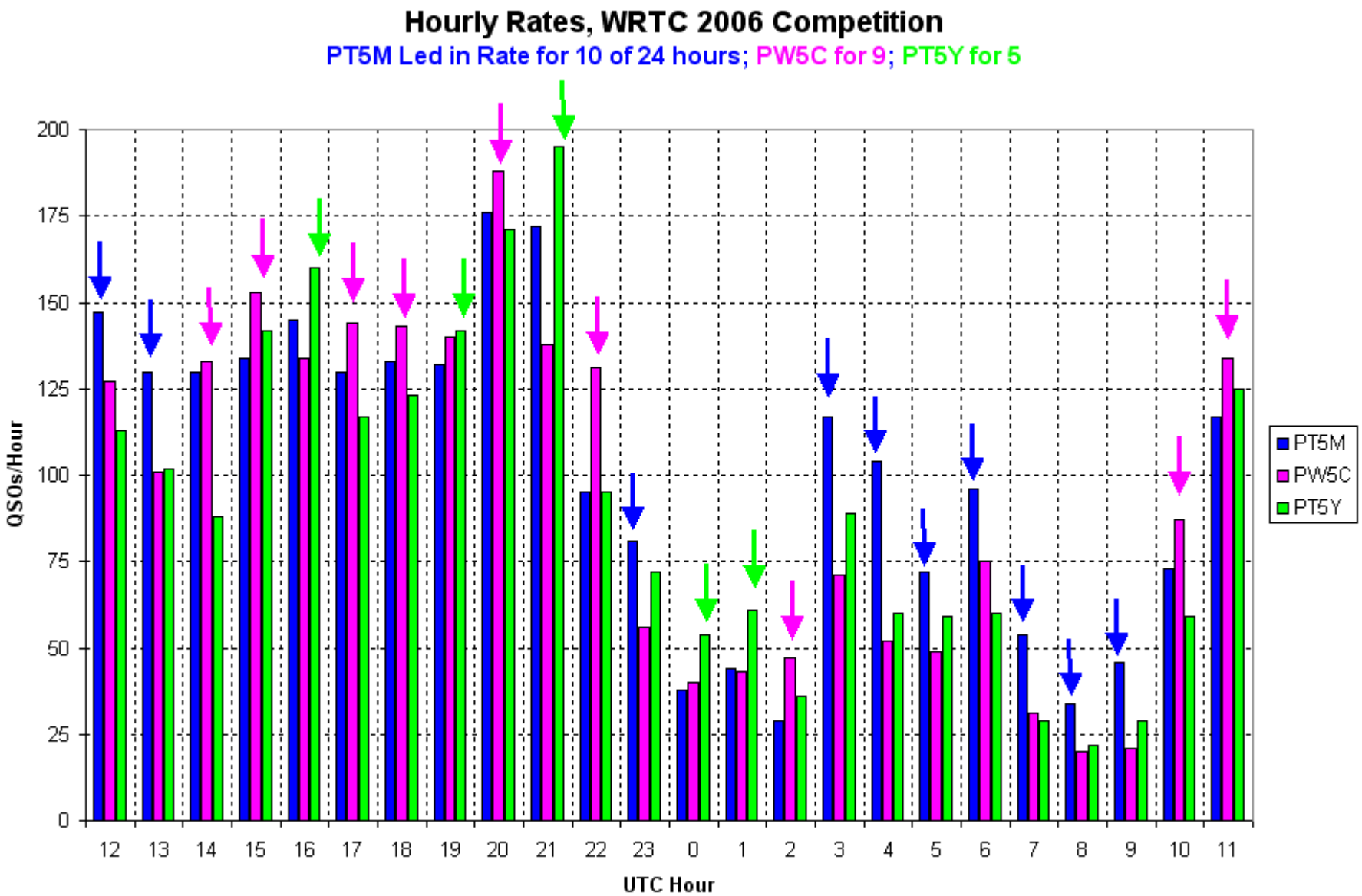
- Operator skill
- Station design
- Operating strategy: Rate
- Operating strategy: Multipliers
- Terrain differences — should be down the list
- Other (noise, failures, etc — should be rare)

The Effects of Terrain – the Top Four

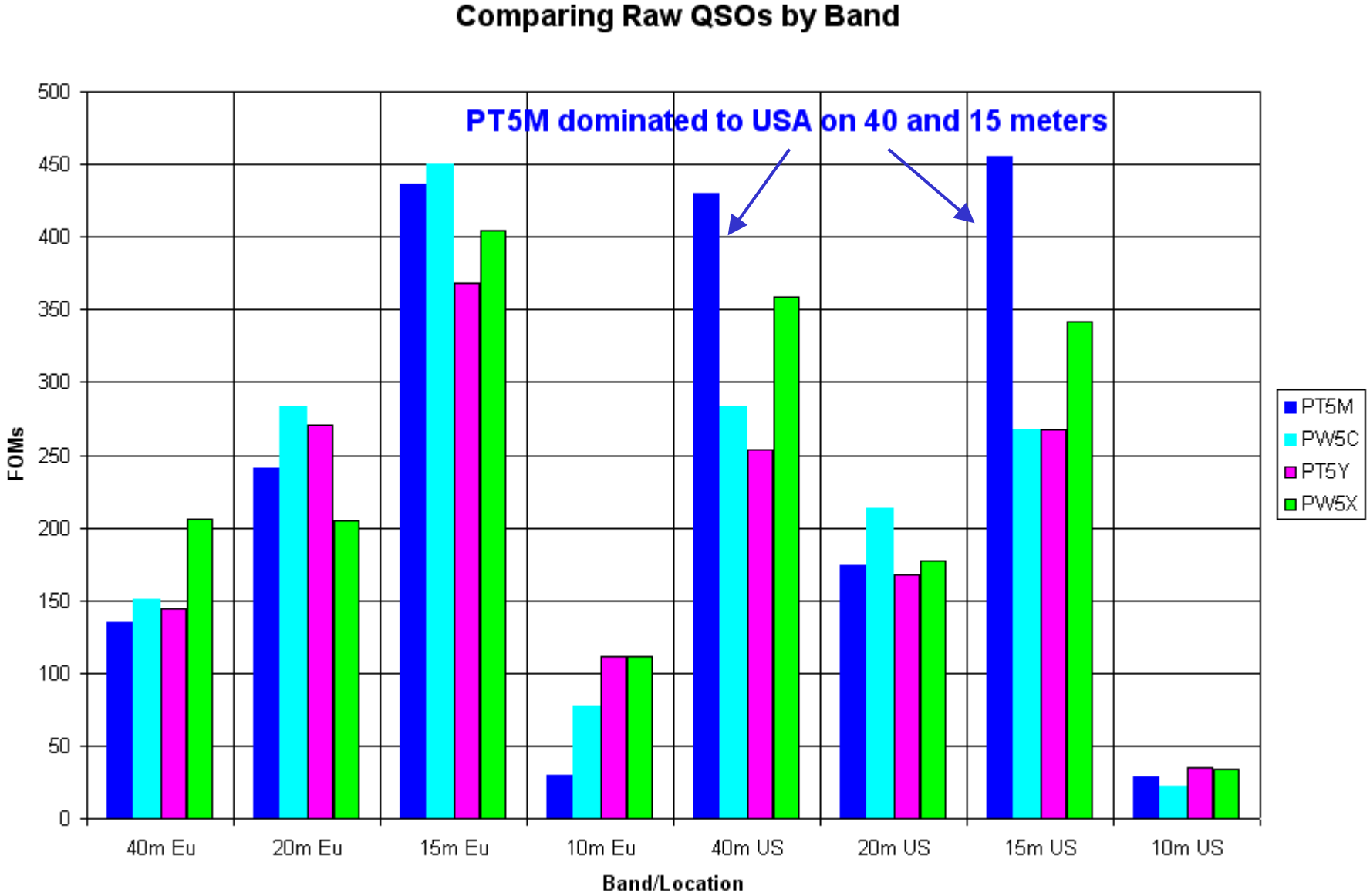
- I used *Google Earth* (a fantastic program) to manually generate terrain profiles for *HFTA* for a number of stations. This was a painful process!
- Some of the altitude data was a bit questionable, but it was all the data available (for example, some heights of seawater higher than 0 feet).
- Despite some cases of worrisome data, trends can easily be seen.

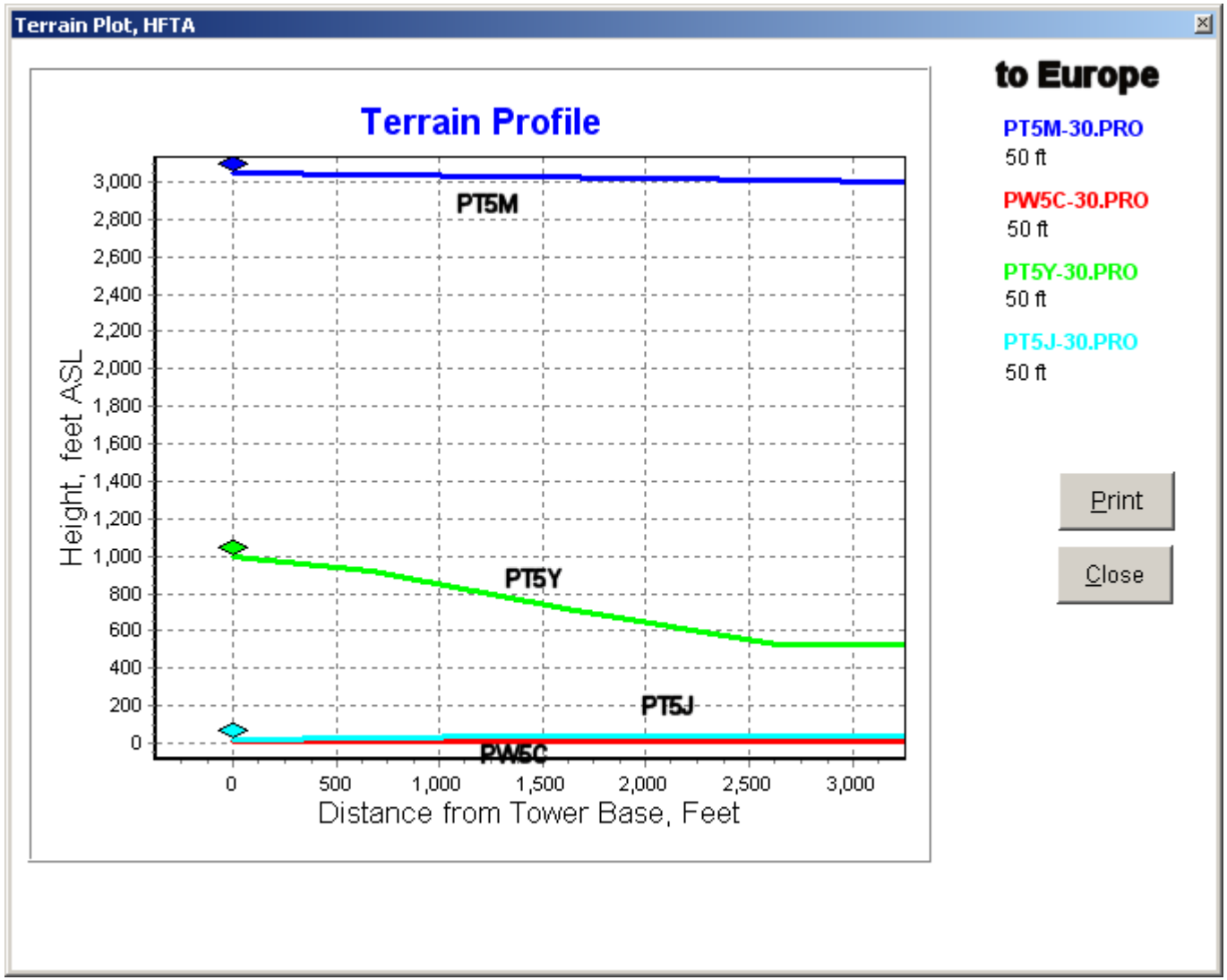
Google Earth Bird's Eye View

Florianopolis is hilly

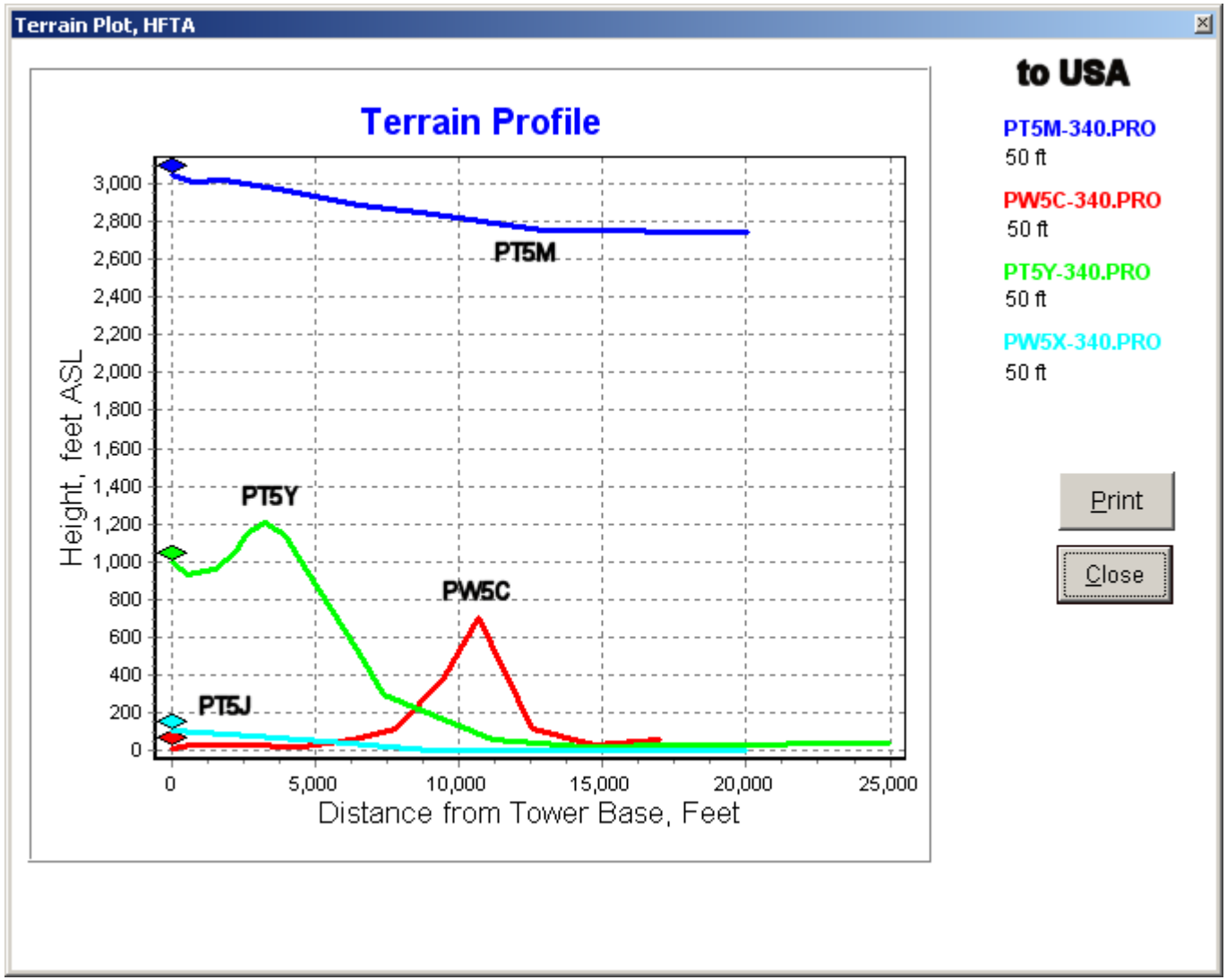


Rate determined the rankings of the top stations

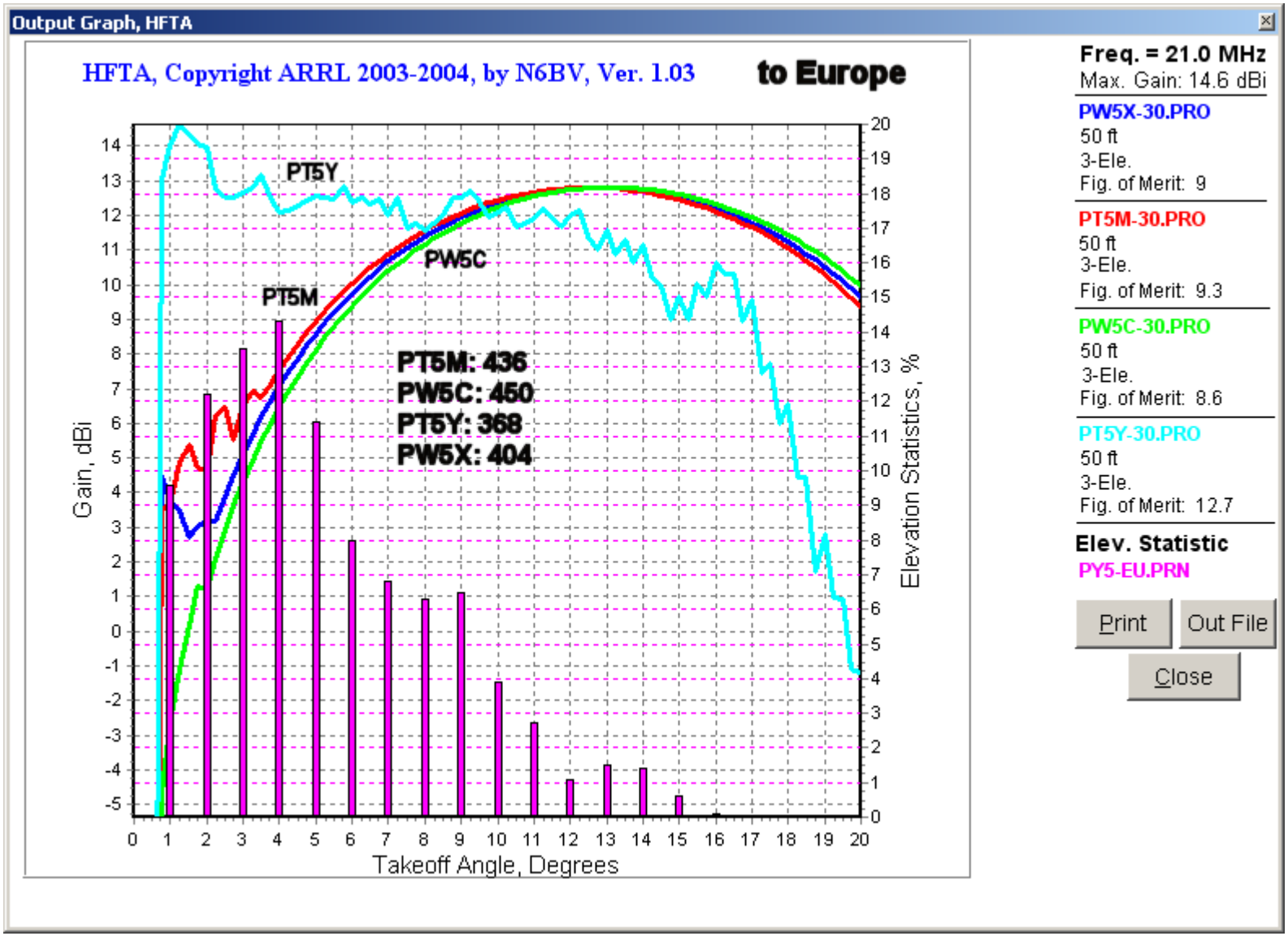

Comparing Raw QSOs by Band
PT5M dominated to USA on 40 and 15 meters
FOMs
500
450
400
350
300
250
200
150
100
50
0
40m Eu
20m Eu
15m Eu
10m Eu
40m US
20m US
15m US
10m US
Band/Location
PT5M
PW5C
PT5Y
PW5X



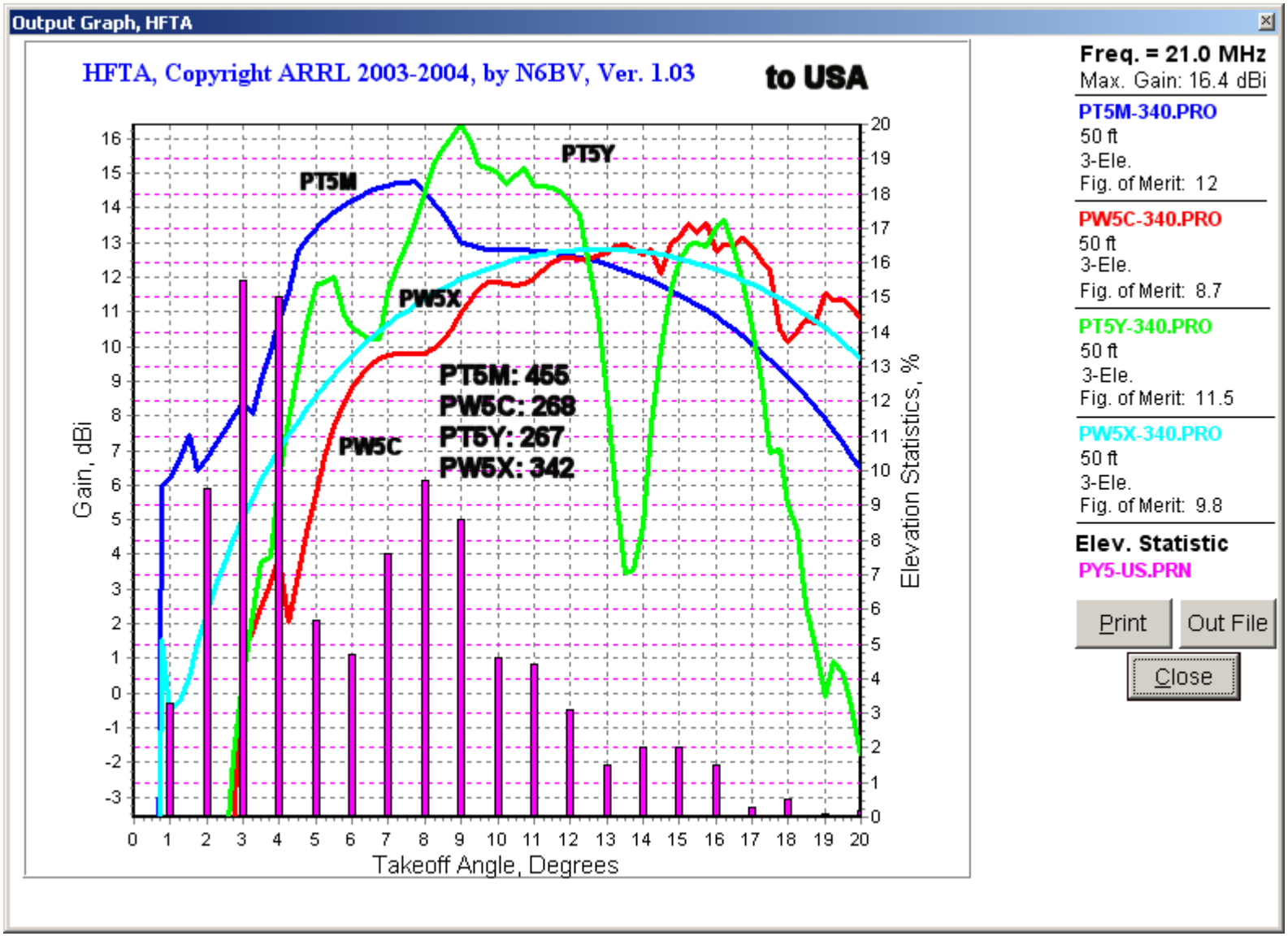
Downward slope to Europe from PT5M was about -1°; for PT5Y about -6° = “great” location



"Great" terrain for PT5M to USA; not so hot for PT5Y. Others are "Good" shots.

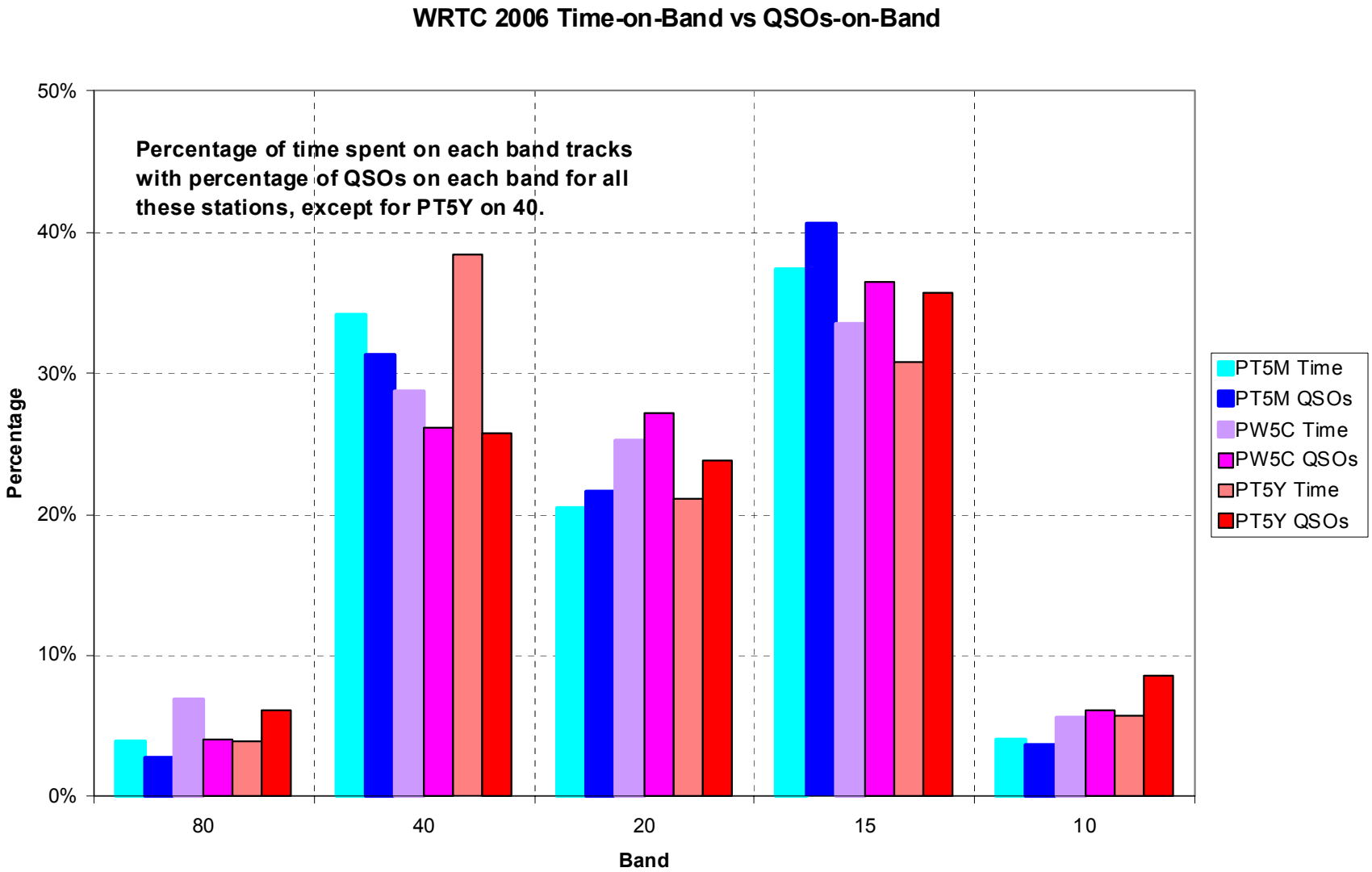


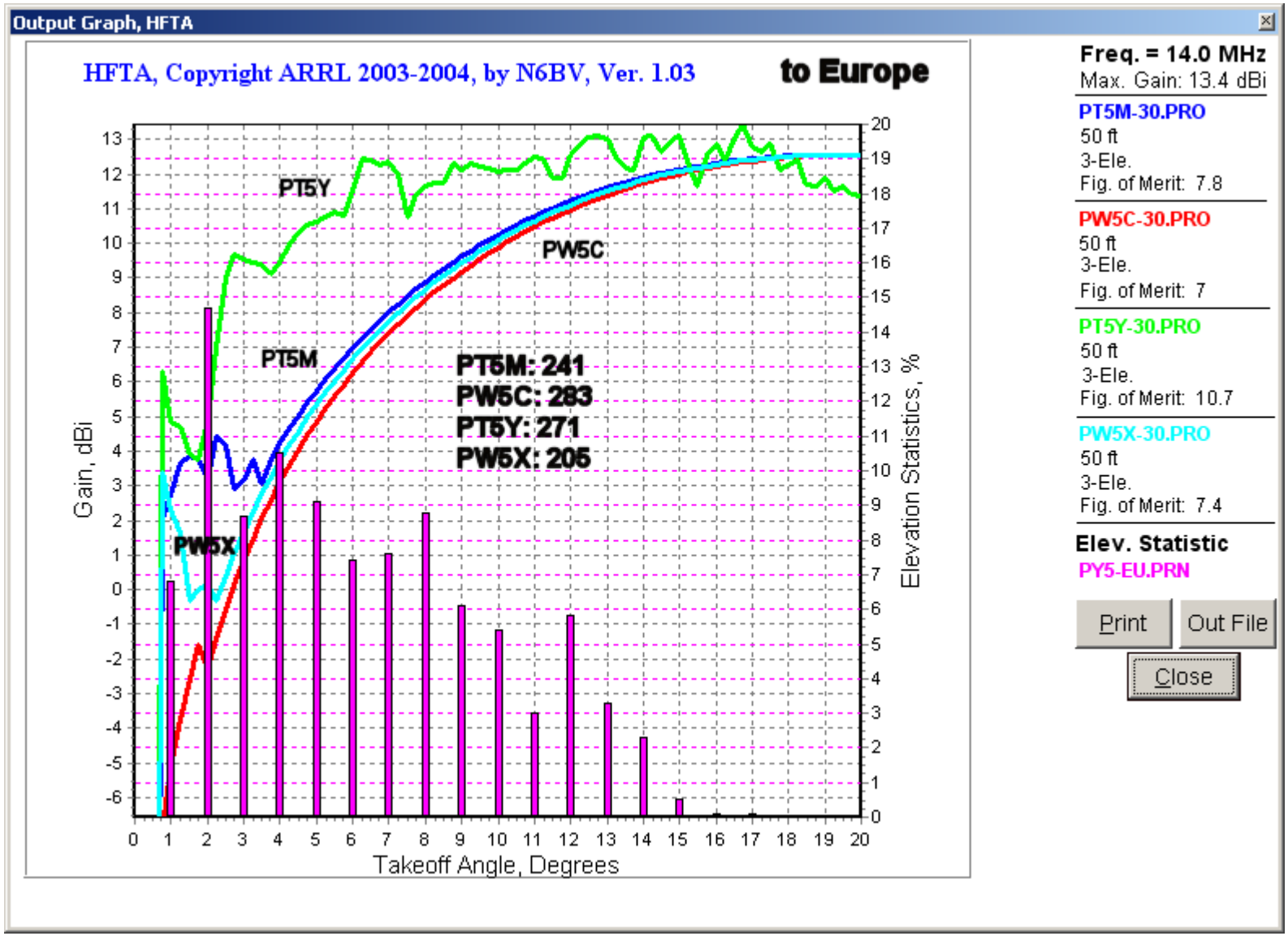
To Europe PT5Y has definite edge; other stations are not bad for 50-foot high antennas.



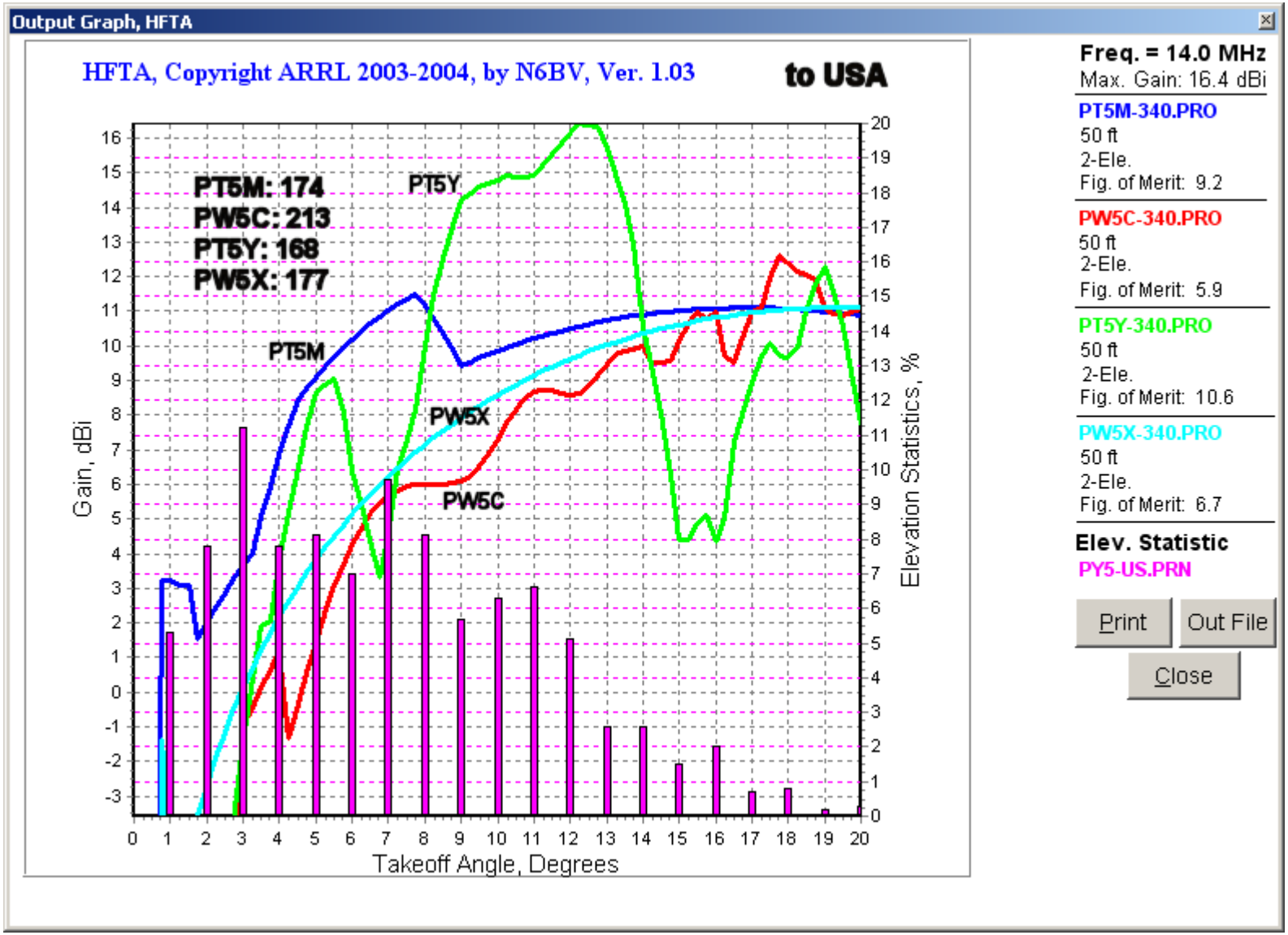
To USA PT5M had big edge. PW5C is somewhat challenged, but they still did well.

What about spending more time on a band?

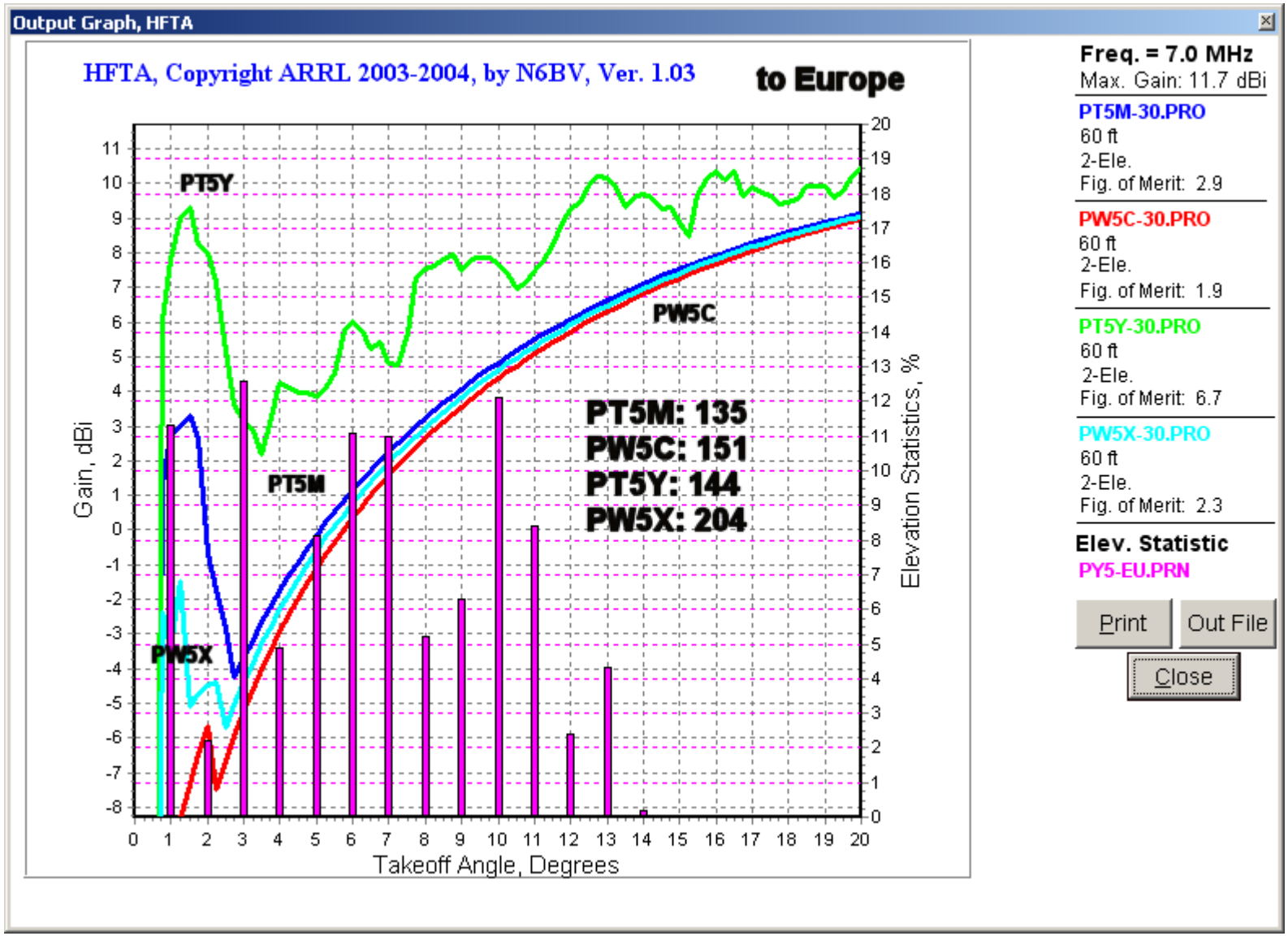




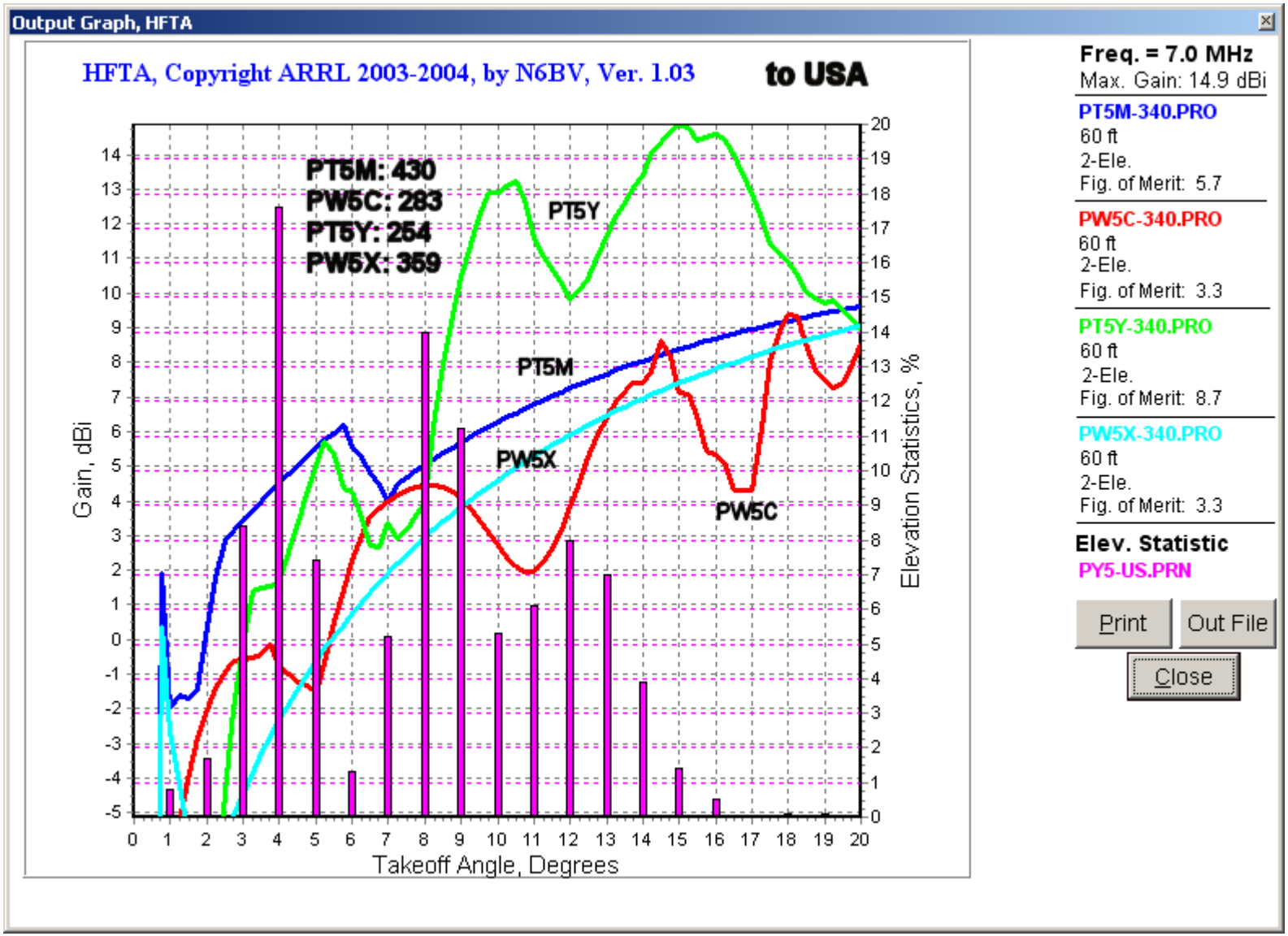
PT5Y to Europe should dominate on 20 meters, but didn't.



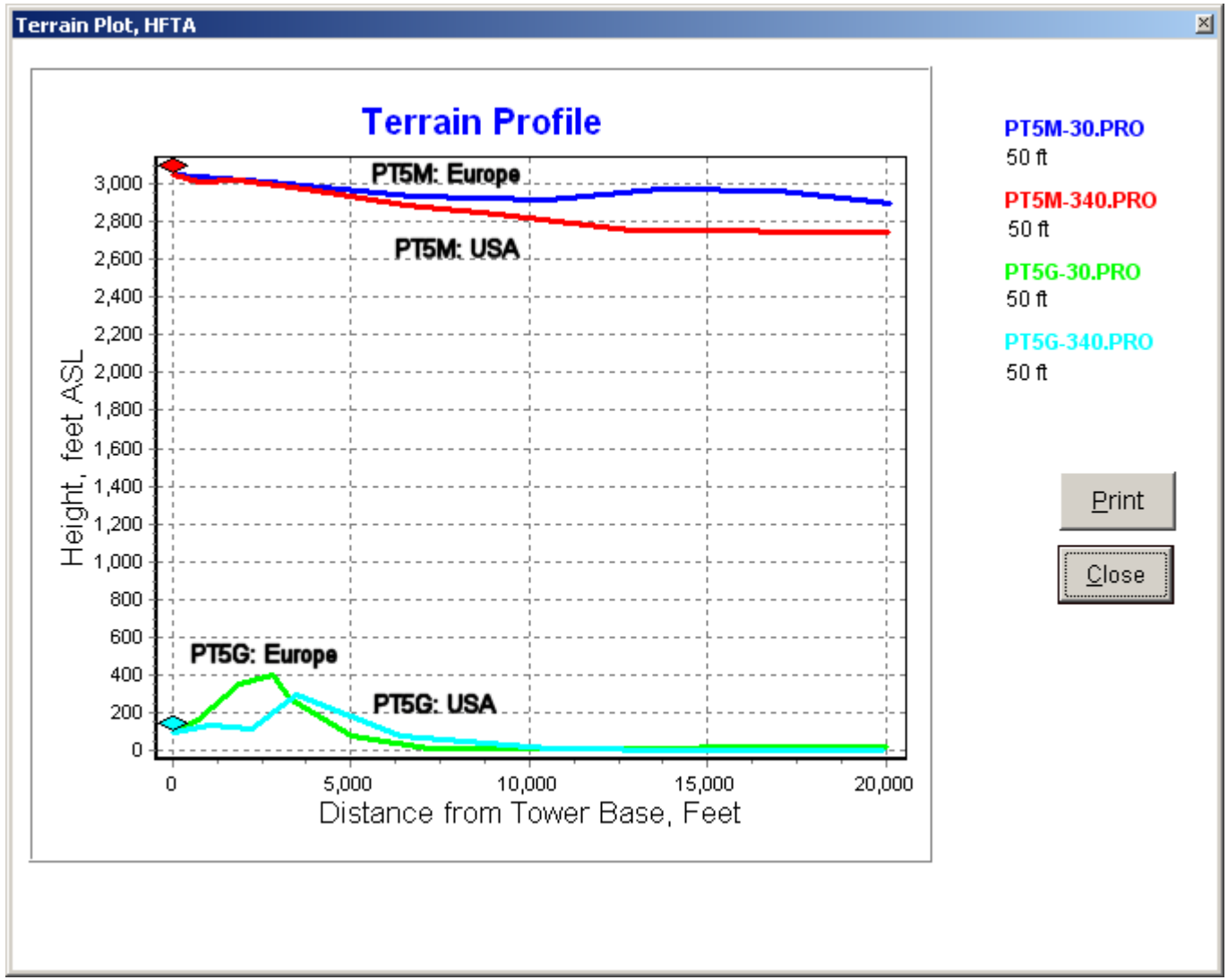
PT5M did well on 20 meters to USA, but PW5C did even better.



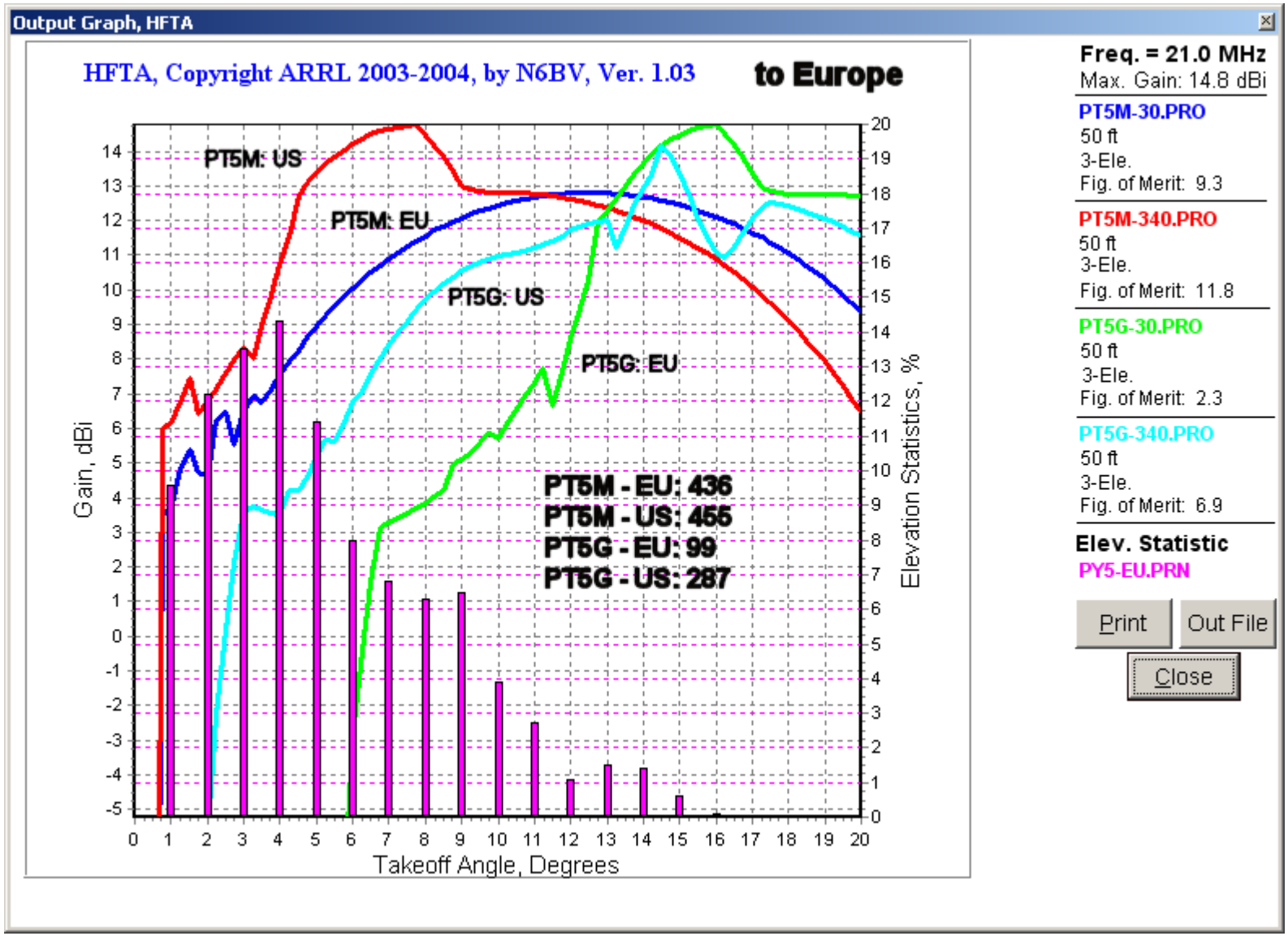
Again, PT5Y didn't dominate to Europe on 40. Strategy perhaps?



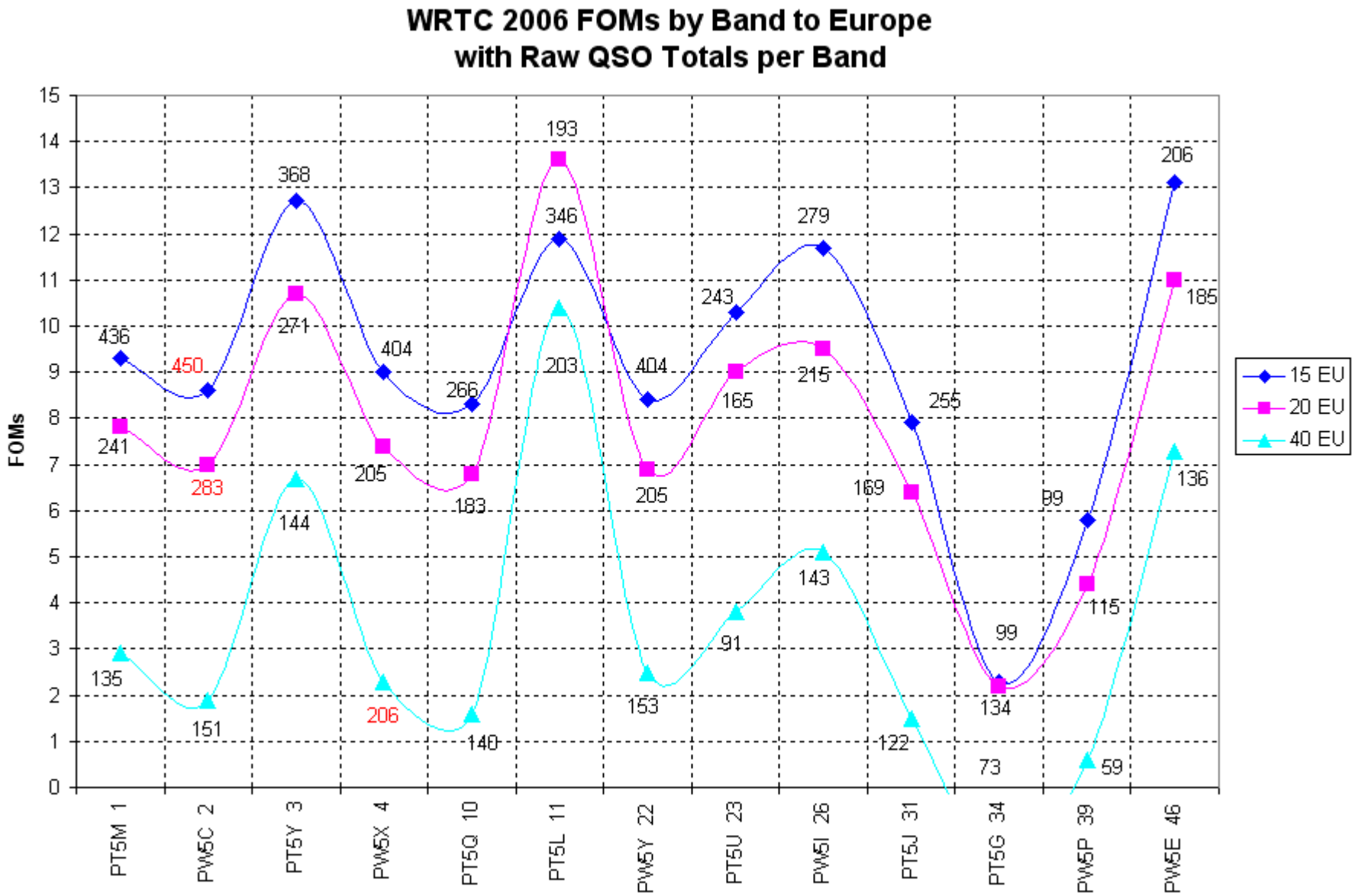
PT5M dominated 40 meters to the USA.



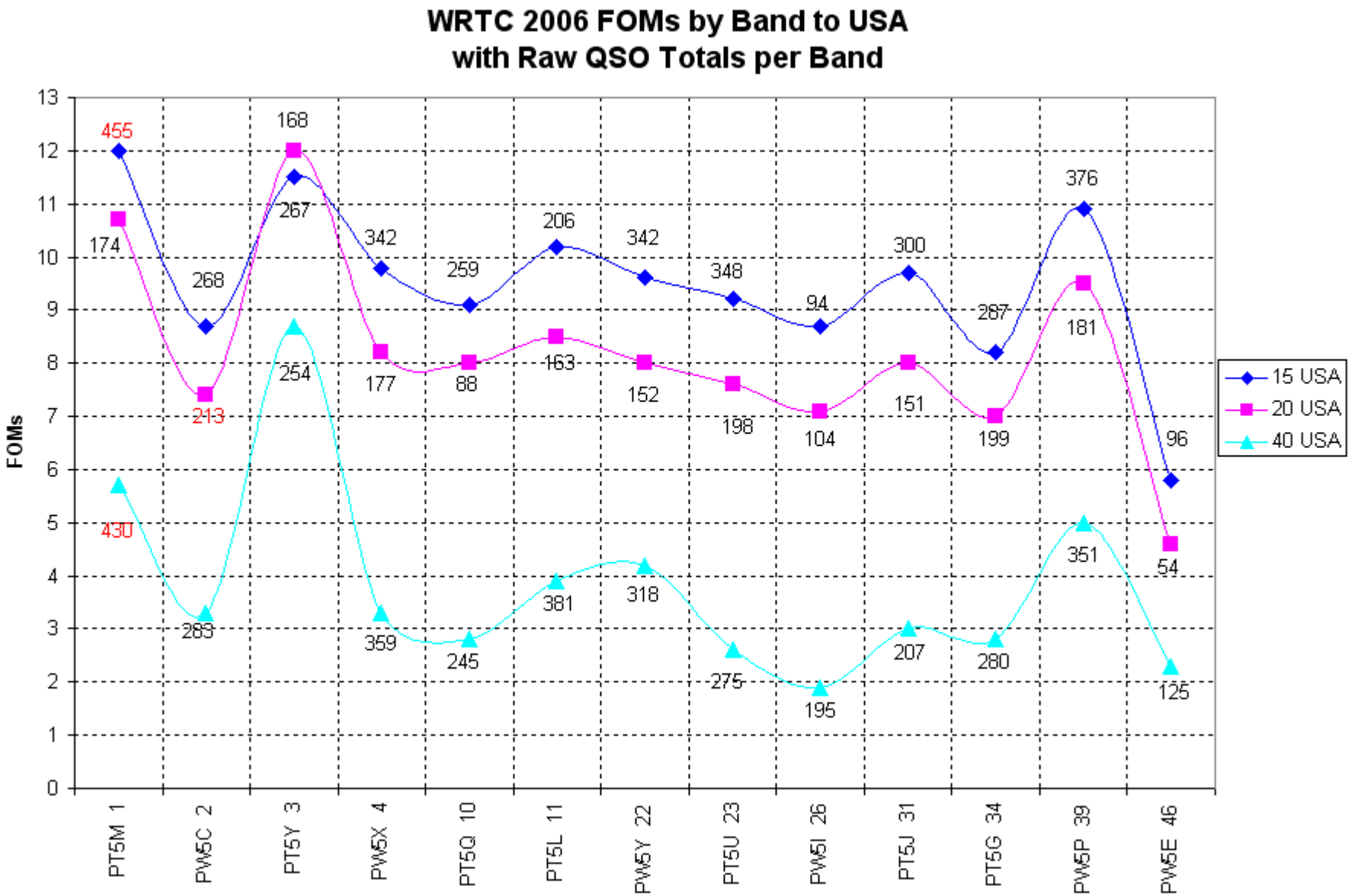
What happens with a really unfortunate terrain?
Note large hill towards Europe for PT5G.



Goodnight, radio.



Higher FOMs generally led to higher QSO counts.



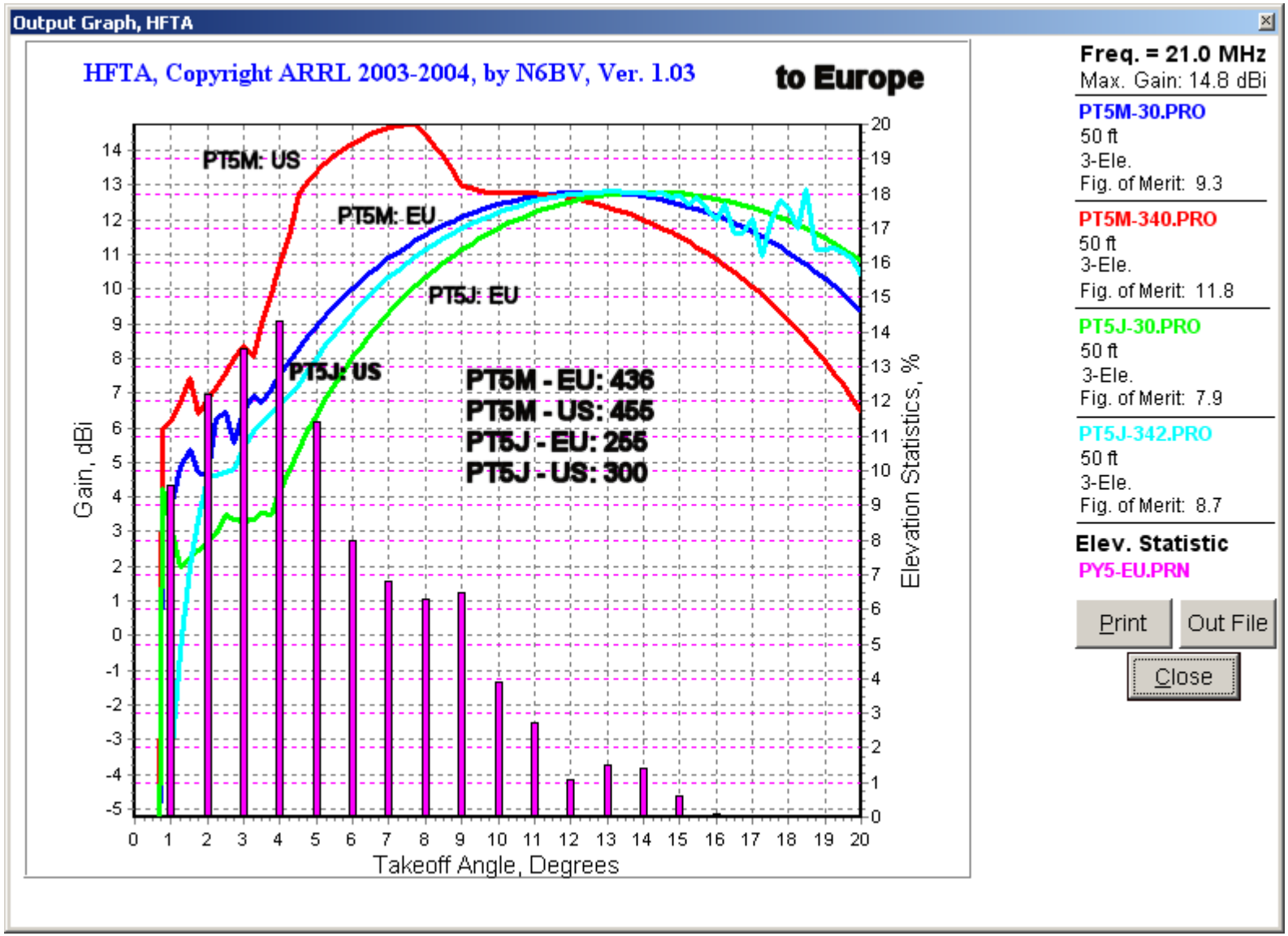
Higher FOMs generally led to higher QSO counts.

The Dog Ate My Homework…

Darn! Someone's used that excuse already.

• Our terrain at PT5J was "Good" but not "Great."

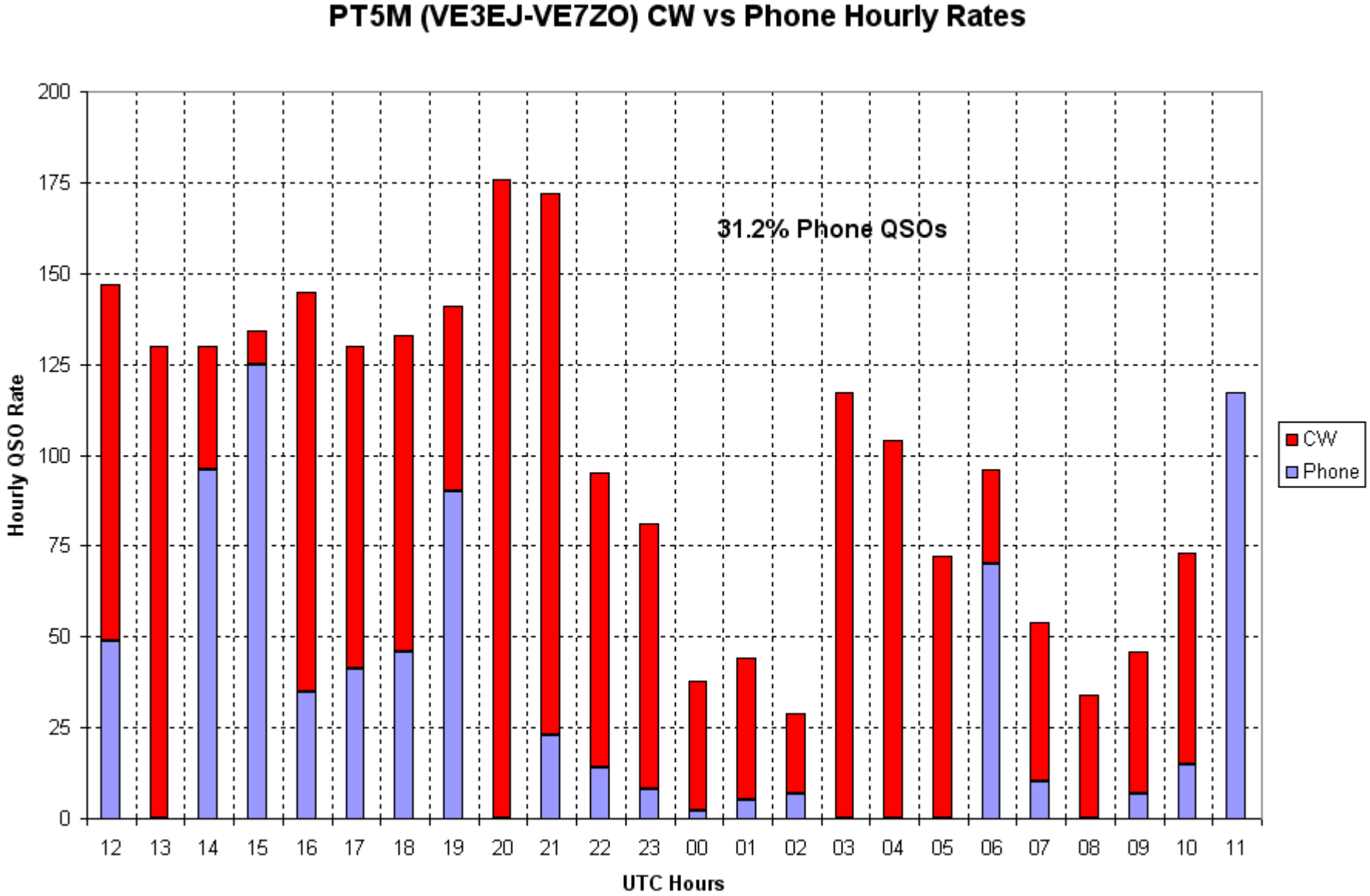
• A 50-foot tower — even over flat ground— is not very high on 40 and 20 (or even 15), when the sunspots are low and the takeoff angles are low.



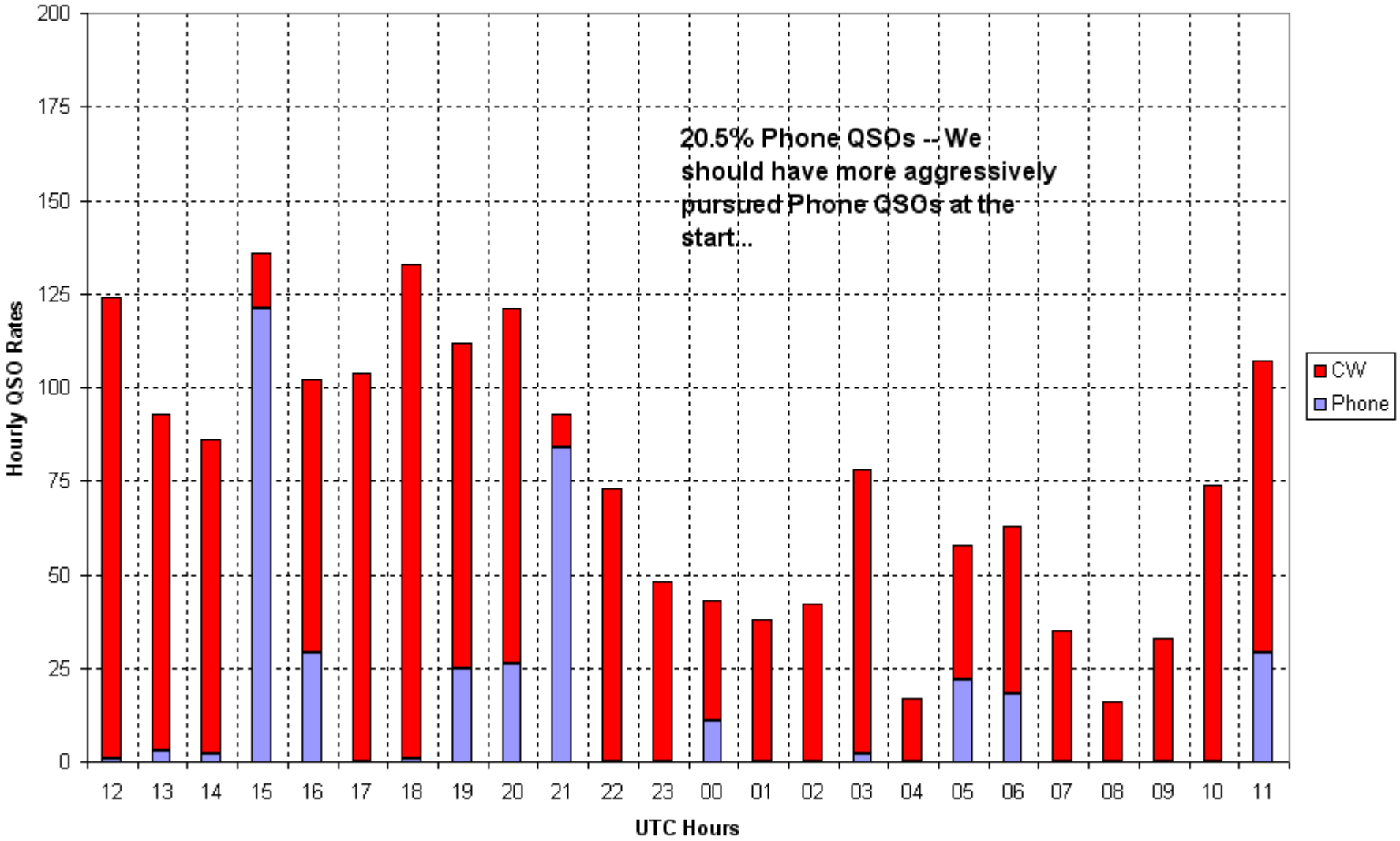
If 2 dB more gain gives a new layer of weak signals, PT5M had at least one extra layer to work, often two.

The Dog Ate My Homework…

- Our phone/CW strategy was flawed. We felt weak at start of contest and thus avoided phone. “Nobody answers an apologetic CQ.”
- On Friday night we noticed that others were working stations we couldn’t even hear. This made us feel weak…


PT5M (VE3EJ-VE7ZO) CW vs Phone Hourly Rates
31.2% Phone QSOs
Hourly QSO Rate
UTC Hours
CW
Phone
0
25
50
75
100
125
150
175
200
12
13
14
15
16
17
18
19
20
21
22
23
00
01
02
03
04
05
06
07
08
09
10
11

PT5J (N6BV-AG9A) CW vs Phone Hourly Rates



The Dog Ate My Homework…

- Our expectation that most mults would call us was wrong. The more successful WRTC competitors found far more multipliers than having mults call them.
- My paddle was destroyed on the trip to PY. I couldn't use Mark's borrowed paddle. Lid city.

The Dog Ate My Homework…

- One real equipment failure: IC-765 HFO went out of lock. I re-soldered synthesizer board on-site.

Tentative Conclusions

- Terrains *did* have some influence on rankings of the top stations, although not major.
- Poorer terrains had definite influence on lower-ranked stations, although strategy (and psychology) also came into play.
- In general, PYs did a great job finding almost 50 reasonably competitive locations.
- A "level playing field" is difficult in mountainous terrain. Only flat land is *equal*!

Tentative Conclusions

- Powerline noise hurt some stations.
- Experience operating together as operators in WRTCs is essential.
- The camaraderie and friendships made at WRTC made it all worth while. CU all in Moscow in 2009!

AG9A and N6BV – note receiver protection circuit!
(*PY5EG*)