**Josh Morgerman's post to map from 7 September 2018:**

Hey, all—

I just got back from chasing Typhoon JEBI in Japan.

I was in Mihama, a small seaside town in Wakayama Prefecture, just right of the eye as it came ashore. The winds were quite violent—way worse than I was expecting. Attached are my pressure data and obs. Some quick points:

The 967.1 mb is a peripheral pressure, measured in eyewall, and is therefore not representative of JEBI's central pressure at the time. The eye passed a few miles to my W.

Since I was estimating elevation (for calibration purposes) visually, I wanted the device (a Kestrel meter) to be as close to the ocean as possible—so I placed it in a crate on a grounded old boat next to the seawall, where it stayed undisturbed during the typhoon.

To create this chart, I determined start and end times for the peak winds by reviewing my time-stamped video footage and judging the volume and pitch of the wind's howl. Therefore, these start and end times should be taken as subjective and approximate—and not scientific. I just wanted to show that the most violent conditions arrived around the time of the minimum pressure and continued for a while as the pressure recovered.

Big picture: Typhoon JEBI was a huge surprise. Generally typhoons hitting mainland Japan's largest island, Honshu, are unraveling junk. There are some important, rare, historic exceptions, like VERA 1959. JEBI wasn't as strong as VERA, but it was unusually severe for this region and a big oddity in its own right.

The surface obs across SW Honshu were impressive. For example, Osaka's main airport, KIX, had 90 knots (10 min) gusting to 113—and it should be pointed out that the station is on a flat island in Osaka Bay, at 5 m, so there was no elevation enhancement. These readings are all the more impressive when you realize that Osaka is far N of the landfall point—meaning winds further S may have been stronger. These data from KIX and several other stations indicate the cyclone was way stronger than the 75 knots (1 min) operationally assessed by JTWC and was probably a solid Cat 3 (on the Saffir-Simpson Hurricane Wind scale) at landfall. I look forward to seeing how JTWC reappraises this storm in season postanalysis. (JMA was closer—they had 85 knots (10 min) at landfall.)

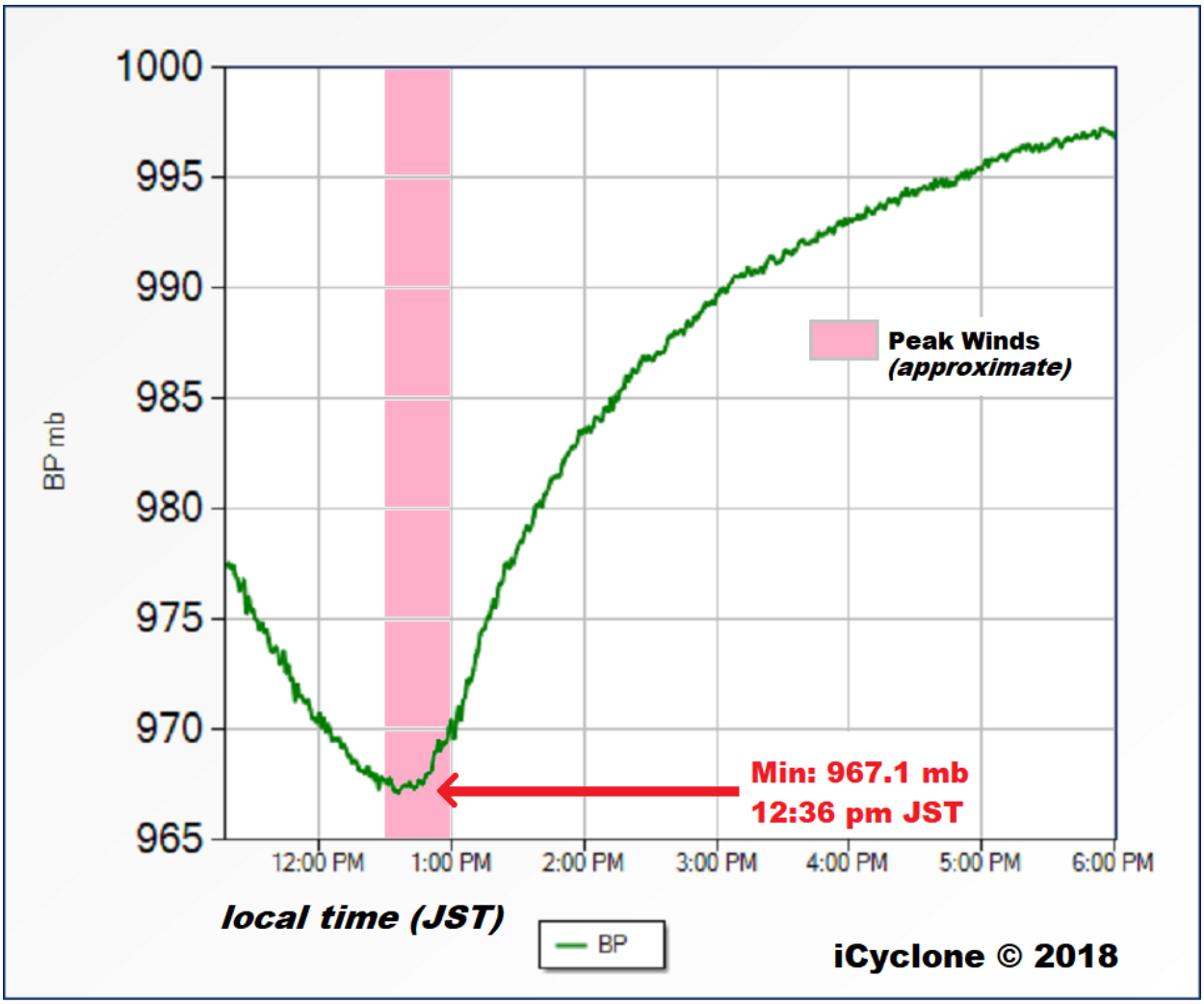
I have to be honest, I'm puzzled by what happened. In the final 24 hours leading up to landfall, JEBI's satellite presentation really degraded—the cloud tops warmed, the eye filled, it looked like dry air was wrapping in on the W side, and the coverage of intense convection decreased. I questioned whether it would even come ashore as a typhoon. On radar the eyewall didn't look that good until it was just offshore—then it seemed like the convection exploded and an intense eyewall consolidated. I've chased many typhoons on mainland Japan and I've never seen that happen in this region before—they're usually rapidly unraveling up there. Does anyone have a theory as to what happened here? I'd love to hear an explanation.

Thanks!

Best,

Josh Morgerman

iCyclone




# TYPHOON JEBI: 04 Sep 2018

**Mihama, Wakayama Prefecture, Japan**

**33.88627N 135.14163E – ref el 10 ft**

**Kerry Emmanuel's Response 7 September 2018:**

Josh: There did seem to be some warm water near the landfall position; see attached (calculated using GFS analysis data). Potential intensities around 60 m/s. Kerry