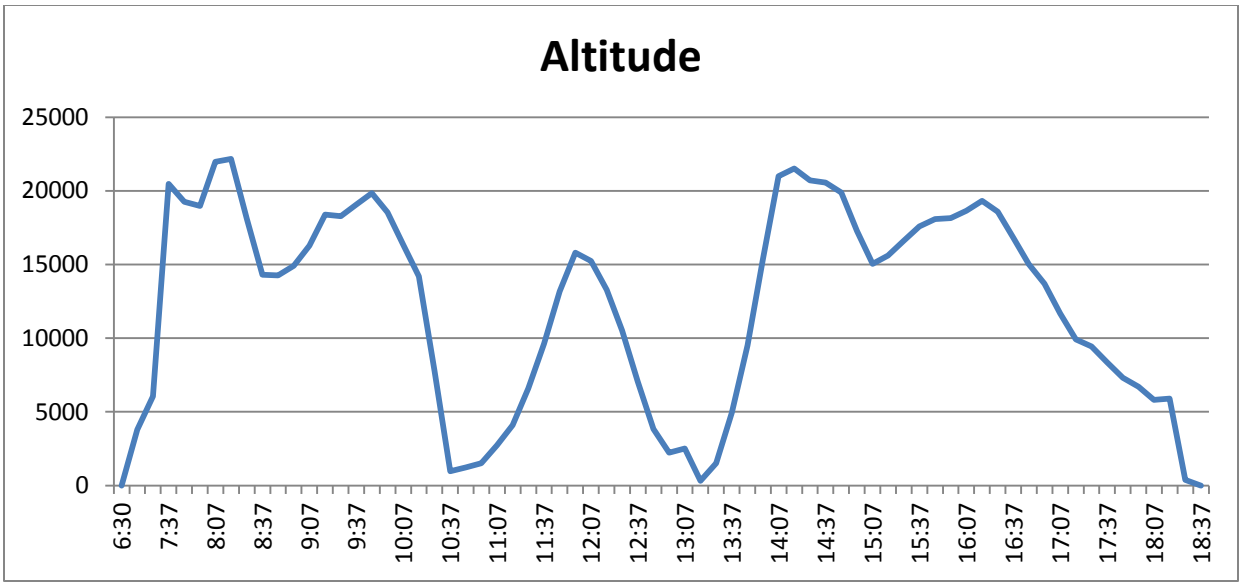
**My thoughts on Jonathan Trappe's recent flight**

I love any form of Lighter-than-Air aviation! It is my passion, career, and life. My experience is wide in variety, and includes cluster ballooning. It is because of my vast amount of ballooning experience and extended acquaintance with Jonathan, that I have fielded many phone calls asking, "What happened"? In all fairness, I have not spoken with Jonathan since he landed, but have communicated with numerous people involved in his recent project. I am absolutely certain he will communicate the sequence of events leading up to his landing after some much needed rest.

I was very happy when Jonathan approached me years ago with an interest in learning to fly gas balloons. From the beginning his stated goal was to fly his office chair below a cluster of balloons. A very cool idea and I was more than willing to help. I was thrilled to be a part of making his "Chairway to Heaven" dream come true. I assumed Jonathan was bitten by the gas balloon bug and would continue to participate in more conventional gas ballooning. However, the bug he was really bitten by was the cluster ballooning bug. The media loves cluster balloons, and Jonathan loves the media. He has made some fantastic flights over the years and is always exploring ways to make each flight grander. However, his latest flight demonstrates the limits of the system.

I have always been skeptical about anyone's ability to adequately control cluster balloon's altitude for any extended period of time. Having crossed the Atlantic by balloon in 1992, I know firsthand of the need to be able to manipulate the aircraft vertically with some precision to meet the goal of a crossing. Richard Abruzzo and I flew from 100 ft MSL to 18,000 ft MSL, based on our flight plan and input from our Meteorologist, Bob Rice. There is always a flight plan at take-off and it is dynamic throughout the journey. Jonathan hired one of the top balloon Meteorologists in the world, Don Day. Don, along with Jonathan, developed a plan based on the meteorological conditions for the proposed flight date. Very seldom will you find the perfect weather window and this one wasn't perfect. It required Jonathan to do some vertical maneuvering and maintain altitudes at precise times throughout the flight. I am sure Don provided Jonathan a very detailed and complete weather scenario for him to make the go/no go decision. It is debatable as to whether this was the right weather system to launch; sometimes it just takes a confirmation bias to see what you want to see.

I voraciously watched Jonathan's flight on his online tracking. From the beginning Jonathan had limited, at best, vertical control of his aircraft. The dramatic oscillations in altitude, from hitting the water to 22,000+ feet, must have been a nightmare for ATC to provide aircraft separation. Besides that, you can't rollercoaster your way across the Atlantic in a balloon!




From my observations, the cluster balloon is much more susceptible to this instability than a zero pressure (AA), super pressure (AS), or Rozier (AM) balloon. The variable volume multi-cell configuration differs from an AA or standard gas balloons that are used in the vast majority of flights. The major difference is that when you ascend and the pressure decreases, the volume increases without any gas being expelled. In order to level out or descend requires cutting loose one or more of the cells. This major loss must be countered by a dropping of ballast. The point of reaching equilibrium at a prescribed altitude or controlling ascents/descents is ***much*** easier in a standard gas balloon.

After a countdown, Jonathan dramatically stood atop his little boat, wearing a scarf reminiscent of a bygone era, waving to the crowd and more importantly the cameras! To me, his lift-off and cavalier attitude was perfect for television. It is too bad that he probably spent more time scripting that rather than how to effectively manage his aircraft. There is a saying in aviation; Aviate, Navigate, Communicate. This media hype that Jonathan basks in creates a very dangerous diversion from the task of flying. Almost every gas balloonist on take-off will have a ballast bag in hand in case of a need for some quick release of weight. Thankfully, Jonathan's weigh off was very well done. Nice initial ascent, but then what happened? The flight profile can be classified as erratic at best, and out of control at worst.

According to a Canadian newscast, Trappe said he was burning through ballast too quickly to make it across the Atlantic and was forced to choose between landing in the isolated woods Thursday night or ditching over the ocean sometime Friday. Taking off with thousands of pounds of ballast, and 12 hours into the flight already concerned with your ballast situation tells volumes about the aircraft performance.

I am not trying to build the puzzle, but at least understand some of the pieces. I know from speaking with many people that were present for the launch, Jonathan went into this very serious undertaking sleep deprived. Accounts vary from 1 to 6 hours of sleep in the 48 hours prior to launch. This combined with a stressful situation can lead to delayed reactions or over reactions. From the ascents to freezing

altitudes to splashing the water could only lead to greater stress. The erratic nature of the aircraft's flight profile could be attributed to pilot input, the weather, or the aircraft itself. There is probably a certain percentage that can be attributed to each factor.

Back in January, I was quoted in a Maine newspaper saying, "Trappe's Atlantic attempt is a stunt". I used the same word, stunt, when I flew the UP chair and again when Jonathan and I flew the HOUSE for National Geographic. Following the article's release I received an email from Jonathan stating, "I hate that you always call it a stunt." The definition of stunt that I am referencing is: something done to attract attention or publicity. There are a number of reasons to want publicity: financial gain, bringing awareness to a product or service, and ego. If Jonathan had chosen a standard gas balloon or Rozier to make the attempt he would have had a higher likelihood of success, but the media wouldn't have been as interested. Properly conducted stunts are good for ballooning bringing attention to sport. I am not opposed to well-orchestrated stunts, and firmly stand by my terminology. Jonathan is a great promoter and showman and I am glad this stunt ended without loss of life. Media attention should be the byproduct of an endeavor not the goal!

The Atlantic has been successfully crossed 18 times now. It is proven that it can be done safely and with a high probability of success. Jonathan has proven that a cluster system is not the right system for the job. Congratulations to him and his team for testing the theory of a prolonged cluster flight. For the sake of his life, I certainly hope this attempt satisfies his romanticized notion of how to cross the Atlantic by balloon.


"Didn't you have this idea when you were little? Just holding on to a giant cluster of toy balloons and floating away. It's a pretty universal idea. It crosses cultures, and generations, and borders. Just this fantasy form of flight holding on to a towering cluster of balloons and floating off." Jonathan, July 2013

**Perhaps it should remain a fantasy form of flight, and not a means of challenging the ocean.**