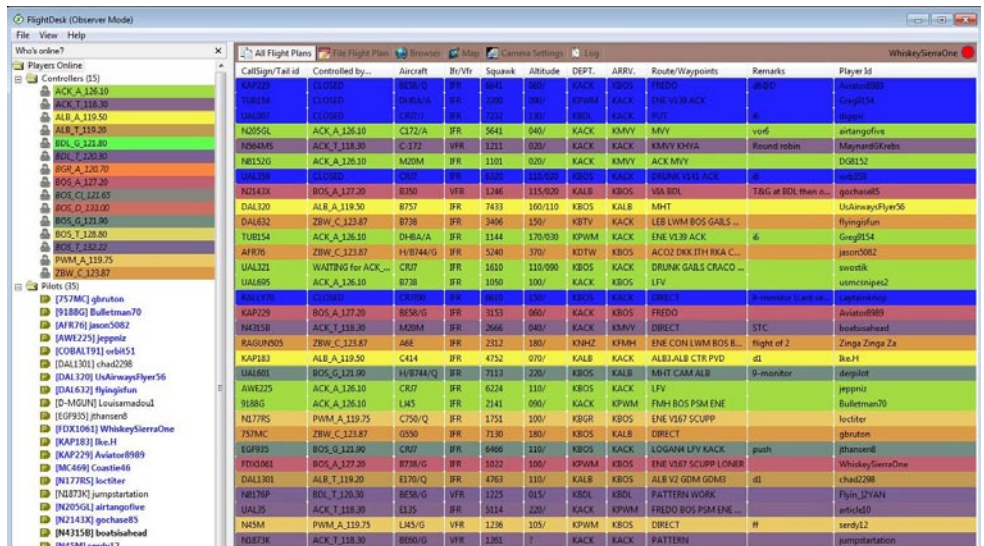## Boston Tea Party Wap-Up

It's hard to believe that it was almost a month ago that our controllers staffed 7 airports across the Boston ARTCC for more than four hours on a Sunday afternoon in celebration of BVA's fourth birthday. It seems like just yesterday that we were watching the FSX Blue Angels kick off the event by overflying the Boston airport.

All told, the Tea Party was an excellent success despite a rough start due to technical issues with the server (more information on that momentarily). Statistics were tracked by FlightDesk starting after the server was re-started around 3pm ET. From the re-start until the end of the event we had a total of 398 pilot-controller interactions, defined as any time a flight plan is picked up by or exchanged between controllers. 116 unique pilots logged in during the event (this includes the FSX Blue Angels) and, combined, spent 218 hours connected to the server. 20 controllers handled 547 flight plans in 73.5 aggregate hours of controlling.

Our Cape Approach controller ('bcarter755') has created a time lapse video of the radar screen for a major portion of the event, overlaid with some of the sounds on his frequency. You can view the time lapse video of the event HERE.

polygon aircraft in their session at the same time.

This type of incident further highlights the importance of increasing the security of our server. We are investigating this incident and expanding the protection coverage of our server to prevent repeats of this attack. In the meantime, I appeal to every BVA member to consider the sensitivity of our server password, and to remember not to provide the session password to anyone, even if he claims to have a membership. The server password is readily available on a password-protected segment of BVA's website. Treat any unsolicited requests for the server password as suspicious, and provide anyone seeking the password with the information they need to find the password on our website. If individuals are consistently attempting to locate our password, contact BVA to ensure we can prevent malicious individuals from logging in.

Those members who were present at the very beginning of the event (there were about 75 of us) likely remember the server virtually stopped responding almost immediately after the Blue Angels kicked off the event. Many members lost connection to the server multiple times. Ultimately, we were forced to re-start the server because almost nobody was able to remain connected. Initially, we thought this was another instance of BVA members overloading the connectivity structure built in to FSX. However, upon further investigation, we are now able to announce that the success of our event was tainted by sabotage: an individual logged in to our server and injected more than 1,000 'ghost' aircraft (AI aircraft not controlled by a pilot) into our server.

Unfortunately, this type of incident has become more prevalent throughout the GameSpy community in recent years, with high-profile servers such as ours as frequent targets. The evidence we have gathered so far points to a non-member receiving our server password and using a computer program to inject these AI aircraft. As soon as this many aircraft are injected into an FSX server, they are transmitted to every single member's FSX session. As you can imagine, most personal computers are unequipped to handle the performance implications of more than 1,000 high-

The first half hour or so of the event was effectively disrupted by the attack mentioned above. This type of attack is what any organization at the top of its field has come to expect. However, members came back in full force and the event was still a monumental success. I have no doubt that, without this intentional, malicious attack, we would have had no trouble getting 100+ members in the session.

Based on the positive feedback from pilots and controllers as well as the solid statistics, it is more than fair to classify this year's Boston Tea Party as a major success. Now, I can't believe I have to wait another year until the next one!

– By Evan ('evanet')

Regional Circuit

Rc

Tuesday, November 30
(8-11pm ET)

KBOS (Boston) &
KJFK (New York)

Our controllers fully staff two airports and provide complete ATC coverage for flights between the two; pilots are encouraged to file preferred routes and can expect multiple handoffs and busy frequencies throughout the event

Domestic Journey

Dj

Friday, December 3
(8-11pm ET)

KSLC (Salt Lake City) &
KDEN (Denver)

The Domestic Journey provides BVA pilots with the opportunity to enjoy medium-haul flights across North America with air traffic control coverage from gate-to-gate.

Pack the Pattern

Pp

Thursday, December 16
(8-10pm ET)

KMCI (Kansas City)

Pilots are encouraged to fly into the event or fly IFR or VFR circuits of a busy Class Bravo airport, with full ATC coverage for the entire evening (including Clearance, Ground, multiple Tower and Approach controllers, and maybe even a Center!)

Fly-In

Fi

Sunday, January 9
(2-5pm ET)

Niagra Falls

Tower (Local) Controllers will feature several small airports designed for General Aviation aircraft. Fly IFR or VFR within controlled airspace; general aviation aircraft (anything from a Cessna to a LearJet) are preferred.

Hyper-Tension Convention

HTC

Sunday, February 6
(2-6pm ET)

Chicago ARTCC

The HTC aims to create the most intense experience for pilots by squeezing eleven controllers into a small airspace, encouraging pilots to sign-up for a departure slot, and keeping blood pressure as high as possible for as long as possible.

Getaway

Ga

January 14 - 23

Colorado (KDEN, KASE, KCOS)

BVA's Getaway Event takes pilots and controllers for a change of scenery, and features various airports across North America. Join BVA as we 'Getaway' to explore new airports and destinations

Pilot Tip of the Month

New Boston Departure Procedures

Effective Thursday, November 18, 2010, a new set of departure procedures became available for Boston's Logan International Airport. The changes affect the preferred vector departure (LOGAN4 becomes LOGAN5) and all of the RNAV departure procedures with the exception of the WYLYY7 and PATSS1 SIDs. For example, the SSOXS1 departure is now the SSOXS2.

The changes, while relatively minor, better align the LOGAN5 departure with the RNAV departures that were recently introduced to KBOS, and make minor changes to the RNAV tracks on the pilot-nav departures. You can see a side-by-side comparison of the LOGAN4/5 departure procedures from the Digital Procedures Publication Webpage.
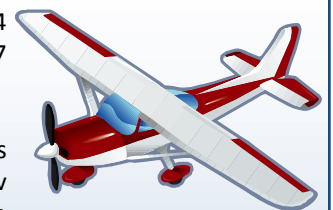
Donations

With the holiday season fast approaching and another year almost behind us, BVA is once again asking its members to donate in order for us to have enough cash on hand to take advantage of any holiday promotions our ISPs may offer. Last year, we were able to receive a discount for several months of service, saving us $360 in server costs this year. However, we would not have been able to take advantage of that generous offer without your early donations.

You can see from the information above that maintaining the FSX server costs $180/month; the website costs $240 per year. Your donations are used in their entirety to pay for the services we provide. None of the administrators get any financial benefit. Administrators and other members donate the time they spend keeping the services up and running without ever asking for money or any special favors. The administrative costs of running BVA, while substantial, cost you nothing! We publish a running budget so that you can be assured that our finances are transparent and that 100% of the money is used in the services you enjoy.

You can keep track of every single cent that has been donated with the running budget available on the Donations & Financial Info page of our website, located HERE.

Fixed Costs	Monthly	Quarterly	Yearly
Website (Hosting / SQL)	$20	$60	$240
FSX / FD Server	$180	$540	$2,160
VAFS Subscription	$5	$15	$62
Total	$205	$615	$2,460

Cash on Hand as of 31 December 2010	$970
Amount to Cover for 2011 Expenses	$1,490
Amount to Cover for 2011 / 2012 Expenses	$3,950
Total 2009 Donations	$4,484
Total 2010 Donations	$1,347
Difference	$3,137

PayPal transfers make our finances much easier and are well worth the small fee they charge. However, if you prefer to send us your donation via check, we will be more than willing to accept. If you would prefer to send a cheque, please send us an e-mail at operations@bostonvirtualatc.com (Evan) or bills@microvisual.com (Bill) for those instructions.

Click HERE to donate now (please make sure your browser accepts cookies for paypal.com and click the yellow "Donate" button on the left side of the page).

– By Evan ('evanet') and Bill ('WhiskeySierraOne')

BVA Admin Team

I recently posted to our forums our plan to table BVA's Board of Directors for the time being because Bill and I received only one application for the Board. This comes as no surprise to Bill or me; in fact, we take it as a compliment. We are still very serious about running a transparent community and managing the most important pieces of BVA effectively and ethically. If anyone has any concerns with the way BVA is being run, I encourage you to speak to Bill or me through the forums, e-mail, or Office Hours. Be assured that we will do what we can to resolve any concerns you may have.

I also mentioned on the forums that I would be appealing to members of this community to form an Administrative Team. This team will be an appointed group of BVA's leaders that will (I hope) consist of a variety of members. Many of the individuals who currently contribute to our community—from scenery design to technical aspects to very dedicated controllers—will have the opportunity to join the team. However, I would also request that any member who believes he or she has the desire to help shape our community consider applying. The most effective teams often consist of multiple perspectives and diverse viewpoints, which is why we would like to have several pilot-only members on the team as well.

The Administrative Team is not about governance, it's about action. We want to be thorough in our thinking but need individuals who are willing to act upon suggestions and actively work on projects that the Administrative Team deems valuable to the community. Those who are interested in an advisory-only role or are interested in the position for its own sake will quickly find there is no place for them on this team.

There is no written application required for those interested in the Administrative Team; instead, we will be holding interviews of potential candidates in the coming weeks. I would recommend that anyone who has an e-mail address from BVA consider participating in these interviews because the roles that you currently play likely makes you an excellent candidate for the Administrative Team. As I mentioned earlier, however, anyone is welcome to the interview process.

To put your name forward for an interview, simply e-mail your name and BVA ID to operations@bostonvirtualatc.com. More details about the interview will be provided to you at that point.

While I expect the Administrative Team will include many of the people that currently work to keep BVA running, I also encourage all members to consider whether they have the ability and commitment to volunteer with BVA and, if so, to take part in the interview process.

– By Evan ('evanet') and Bill ('WhiskeySierraOne')

Well, it's that time of year again. The birds have flown the coop, the trees are bare, and there is a strange white substance on the ground. It can only mean one thing: winter. Believe it or not, this is actually the best time of year to spend some time punching holes in the clouds. The increased air density that accompanies colder temperatures produces some of the most stable air throughout the year, and also provides for outstanding aircraft performance. But you have to take the good with the bad, and the greatest draw back to winter is obviously the likelihood of icing conditions.

Although icing conditions can be encountered year-round, the likelihood more than doubles in the winter due to the decreased temperature dew point split that occurs. Visible moisture must be present to have icing, but many times you can't see that moisture because it occurs in places that you can't always see, such as the venturi at the tip of your pitot tube. As the air accelerates through the venturi, the air temperature drops low enough to condense.

So how do you know when you are running into icing conditions before ice starts to form on your wings? Well, like most conditions, you're going to have some sort of indication. If we understand how our instruments work, then we can rely on them to warn us of impending dangers.

We have three basic types of instruments in our airplane: Pitot, Static, and Gyroscopic. Icing poses a problem to your Pitot and Static systems because they receive their information from the outside air. This is nothing new to most pilots, but have you ever considered how your instruments react in the event that one of those ports becomes blocked due to icing?

The typical answer that I have encountered is that if your pitot tube becomes clogged, the airspeed indicator will simply drop to zero. Wrong! To understand this we must first understand how our instruments operate.

Pitot Pressure is nothing more than ram air ducted directly to the airspeed indicator. Static pressure is the difference between standard pressure (29.92 inHG) and and the current outside air pressure. The airspeed indicator is a combination of both pitot and static pressure. The reason for this is that as we climb we actually reduce the drag on the plane due to the thinning air. The static input into the altimeter offsets the airspeed indication relative to the density of the surrounding air, otherwise we would constantly be either gaining or losing airspeed. Note that the only instrument that displays pitot pressure is the airspeed indicator.
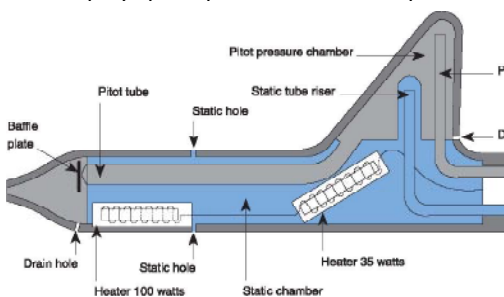
Imagine a balloon inside a pressure sealed box. As air is introduced into the box, it will squeeze the balloon. Conversely, as the air is let out, the balloon will expand. This compression and expansion moves a set of gears that turn the hands on the instrument. But what happens when the air can no longer escape? Well, this is exactly what is happening when your pitot tube becomes iced over. Becuase there is nowhere for the air to go, the airspeed indicator will act like an altimeter becuase it is still picking up its secondary input. Therefore, as you climb, your airspeed indicator will indicate an increase in airspeed proportional to your gain in altitude. If you are paying attention, you will begin to notice a developing clog before it fully develops. A slight increase in airspeed without an increase in power is usually a pretty good indication. As the ice constricts the venturi, you wind up with a higher velocity of air. However, what if your static port becomes blocked?

Let's first identify the proper instruments that will be affected. The altimeter and vertical speed indicator are our static instruments, and both operate similarly. The vertical speed indicator has a metered bleed hole that allows air to escape a pre-determined rate. This provides the rate of change, and a stabilization point that is equal to the current altitude. Most airplanes have an alternate static source, so your static instruments indications will vary depending on the severity of the blockage. If only the primary static port is blocked, then you will see inaccuracies and lagging in the altimeter and vertical speed indicator. In the event that both static sources become clogged, but the pitot remains unobstructed, then you will see no change in either the altimeter or the vertical speed indicator; they will retain their last indication. The airspeed indicator will function, but in the reverse of the previous example: the airspeed will decrease with a gain in altitude, and vice versa. This is becuase as we gain altitude, the air pressure decreases. Therefore, as the airplane climbs, there is a lesser volume of air flowing through the pitot tube. The denser air forces a greater volume of air through the venturi, which in turn results in higher pressure on the instrument.

A situation where both your pitot and static systems fail is rare. However, it is impossible to miss becuase all of you pitot and static instrucments will freeze and remain constant, regardless of a change in altitude or airspeed.

Winter adds new challenges to flying, and it is the opinion of the writer that all pilots should seek advanced training in winter weather flying. All it takes is a little planning and know how, and you can spot dangerous situations early. There are two general rules to keep in mind when it comes to flight in icing conditions: first, few airplanes are approved to fly into known icing conditions. Anti-icing equipment merely provides you with a measure of protection should you accidentally encounter icing conditions. Second, in the event you find yourself in icing conditions, find warmer air as soon as practical. Know your limits and the limits of your aircraft and you will make good decisions.
– By Vince ('NWTech75')

Fly for Wounded Warriors

Our friends from WestCoastHops have asked us to include a message about the "Fly four Wounded Warriors" event that is being held early in December. There is no need to register, and several East Coast routes fall within our regularly-controlled airspace. You are welcome to participate in this event on our server. For more information about the Wounded Warrior Project, please visit WestCoastHops' website, located HERE.

Questions about this event may be directed to Keith at n316ec@westcoasthops.com.

New Login Protocol

The multiplayer aspect of FSX is incomplete in many ways. FSX has a few open vulnerabilities like the one that was exploited during the Tea Party. We are working as fast as we can to plug the security holes. One of the security projects we are working on is a new login protocol which will change the way users are authenticated to login to a FSX session. We are working on the details and trying different approaches. Stay tuned for more reports on this topic.
– By Bill ('WhiskeySierraOne')