

FLYING HOLDING PATTERNS WITH THE FMC!

DELTA **FLY!**

AUGUST 2011 EDITION DELTA VIRTUAL AIRLINES MAGAZINE



**IMPORTANT
TRAINING DEPT.
UPDATES**

**DELTA HUBS - KATL
HOW TO FLY ON VATSIM**





August 2011
Issue #14

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Front Cover: B752 departing KMLA by Tom Housworth

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From the Presidents Desk

Terry Eshenour - Senior Captain B777



August 2011

Fellow Pilots,

We are progressing through our 11th year with a robust and energetic group of pilots and support staff. Recent staff changes are the result of real-world time constraints. Our system has new tools to support our staff as they provide service.

The Career Opportunities feature provides an efficient process to receive staff candidate applications. We've had a few startup glitches that were readily resolved. If you are interested in supporting the community at the staff level, I urge you to apply. Should you not succeed at first, continue to apply. We have a large talent pool and only a few positions. Be patient and your time to serve will come.

The Flight Academy, under the guidance of Scott Clarke and Jim Warner, in coordination with VATSIM created a program back in March, that enables us to award Online Pilot certification. The program is self-administered with an online Check Ride that is reviewed by a Flight Instructor. The Flight Academy is busy working on other instruction modules. Stay tuned, as they will have additional announcements throughout the remainder of this year.

I receive inquiries about how we provide the professional level of services without user fees or advertising. Since we are approaching September 1st the start of our fiscal year, I thought that I would use my space to share with you background information about how we are structured and what keeps Delta Virtual Airlines, the largest single virtual airline, available 24/7.

The time, effort and talent that staff provides is volunteer. No one receives financial compensation. For example, the computer code and server administration is provided by Luke Kolin, a professional software development engineer with a passion for excellence and fortunately for us, an interest in an aviation community of like-minded individuals. A commercial airline pilot, Ken Nesbitt, who is able to share real world aviation experiences when dealing with our structure and management of line staff, heads the operations side of Delta Virtual Airlines. The Flight Academy has several participants who are commercial aviators and certified instructors.

The major operating cost is the dedicated server and Internet connectivity. We use a dedicated server located at a commercial computer processing center to handle our website and related data processing needs. The server is about to complete 1,000 days of uninterrupted service. Luke advises me that it is nearing the end of its expected service life. Plans are underway to replace it and to provide a backup server.

So you are thinking, how are the bills paid for the server and Internet connectivity? The short answer is by pilot volunteer contributions.

Then you ask, how and to whom are the contributions made? This is where Global Virtual Airlines Group plays an important function. It was created to provide an overall corporate entity to own software rights, domain names and provide a set of policies for creating budgets and receiving contributions. Global Virtual Airlines Group has two subsidiaries, Aviation Français Virtuel Airline and Delta Virtual Airlines.

So how does this all work? At the end of the fiscal year, August, the treasurer summarizes expenditures and provides a spending plan for the next year. The information is supplied to the volunteer contributors, who are "shareowners." The term shareowner and shares are used simply to identify a portion of the expenses paid by the contribution. Currently one portion or share is \$10 of contribution. The shareowners are asked to ratify the report and proposed spending plan.

The prior year "shareowners" or contributors are given first opportunity to purchase "shares" for the new year. Any remaining shares are offered to those who volunteer to contribute. If you are interested in being a volunteer, make your intentions known to the Treasurer of Global Virtual Airlines Group
Treasurer@GVAGroup.org

Thank you for indulging my description of how things work. I realize that it is not exciting and fun, but it is a necessary part that assures that we can continue providing services.

Wishing you all blue sky and smooth air!

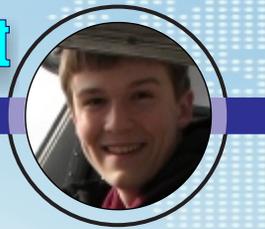
Thank you for flying Delta Virtual Airlines,



Terry Eshenour
President, Senior Captain
DVA057

From the Events Department

Luke Jones - Senior Captain A330



Hello DVA,

The Events staff would like to say thanks for all the support you have given during each and every event. Your participation has kept us going and makes our efforts worthwhile. Over the past few months, we added a new member, Dylan Neidorff to our staff. We are happy to have him, and he has already provided numerous interesting and fun events. Looking ahead, the DVA Events staff WILL BE hosting another "Long Haulers" event which is in the early stages of construction. Additionally look for an event that takes participants to the heart of Central America, Honduras. This is one of the world's most difficult approaches and will sure to challenge everyone's piloting skills. All in all, the events in the next few months promise to be fun and interesting for everyone. Stay tuned in the Water Cooler for more updates on new events and enjoy every hour in the sky.

Blue Skies,
DVA Events Staff

Dylan Neidorff, Age 23, is an Assistant Director of Events for Delta Virtual Airlines. He is a 1st Lieutenant in the United States Air Force, currently stationed at Hanscom Air Force Base in Massachusetts.

Dylan grew up on Long Island. He took his first flight at 12 years old, which ignited the ambition to obtain his Private Pilot License. On Aug 22nd, 2005 he obtained his PPL at Long Island, Islip Airport followed by his Instrument Rating in December 2007.



He currently has over 300 hours and over 500 landings logged in a multitude of aircraft. Dylan flies the Cessna 172 & 182 but has logged time in the Cirrus 22 and Citation Mustang.

In 2005, Dylan began his adventure towards a Bachelors Degree in Mechanical Engineering. He called Boston University home for four years until 2009, when he graduated.

During his four years of college

Dylan joined Air Force ROTC at DET 355. In May 2009, Dylan graduated not only with his Bachelors Degree but also with a Commission in the United States Air Force. Even though Dylan tried to become a pilot for the Air Force, only to be medically disqualified, Dylan was classified as a 62EX, Project Engineer. For his first two years in the Air Force, Dylan worked as a project manager for software used within the Special Operations

Community. He is currently working on a special rapid prototyping project for the Department of Homeland Security at Eglin AFB, FL.

Dylan is a Captain in the 777 and has over 1,200 hours logged with DVA. He is also a controller for New York on VATSIM. He primarily works JFK airspace up to and including Approach Control. He is also an active Senior Member in the Civil Air Patrol, volunteering his time to Cadet Programs at the Hanscom Composite Squadron. Dylan is always welcoming questions about his experience and has the drive to help others. Please let him know if he can help out with anything!

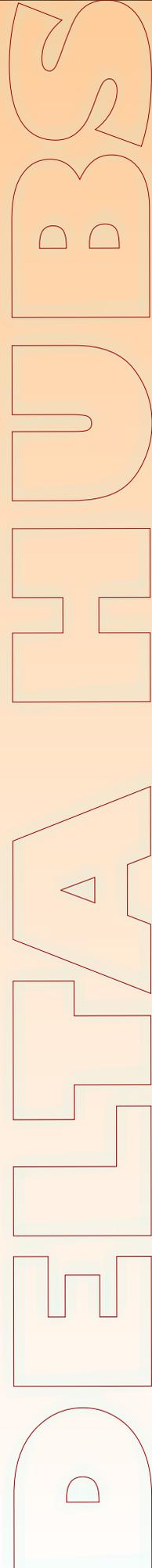
dylan_neidorff@deltava.org or djnaf62@gmail.com



Comprende METAR?

this is a great link to check out

→ <http://www.wunderground.com/metarFAQ.asp>



Hartsfield–Jackson Atlanta Intl. Airport had its beginnings on an abandoned auto racetrack. The lease was signed on April 16, 1925, by Mayor Walter Sims, who committed the city to develop it into an airfield. As part of the agreement, the property was renamed Candler Field after its former owner, Coca-Cola tycoon and former Atlanta mayor Asa Candler. The first flight into Candler Field was a Florida Airways mail plane flying from Jacksonville, Florida on September 15, 1926. In May 1928, Pitcairn Aviation began service to Atlanta, followed in June 1930 by Delta Air Service. Later these two airlines, known as Eastern Air Lines and Delta Air Lines, respectively, would both use Atlanta as their chief hubs.

During WWII the US Government declared it a "Military Airfield" and the US Air Force operated Atlanta Army Airfield.

In 1946, the airport was renamed Atlanta Municipal Airport and by 1948 Delta, Eastern and Southern Airways were operating an extensive route network to many destinations throughout the United States.

As the Aviation Industry and Air Carrier operations grew, the Airport struggled to keep up with passenger demand, both domestic and internationally. In May of 1961 a new \$21 million dollar terminal opened and was the largest in the country. Able to accommodate over 6 million passengers a year, it exceeded its capacity the first year with 9.5 million passengers.

In 1967 the city of Atlanta and airlines began work on a Master Plan for future development of Atlanta Municipal Airport. January 1977 construction

began on the \$500 million dollar present day midfield terminal. Named for former Atlanta Mayor, the William B.

Hartsfield International Airport opened September 21, 1980. It was designed to accommodate up to 55 million passengers per year and covered 2.5 million square feet. October 2003 Atlanta's City Council voted to change the name to its current Hartsfield-Jackson Atlanta International Airport in honor of Maynard Jackson, the first African-American Mayor who died that year. The airport today employs approximately 55,300 airline, ground transportation, concessionaire, security, federal government, City of Atlanta and Airport tenant employees and is considered the largest employment center in the state of Georgia. With a payroll of \$2.4 billion, the airport has a direct and indirect economic impact of \$3.2 billion on the local and regional economy and a total annual, regional economic impact of more than \$19.8 billion dollars.



World's Busiest Airport

Airports Council International in Geneva, Switzerland has ranked Hartsfield-Jackson International Airport #1 in the following categories:

- Largest numbers of passengers annually 1998-present
- Most arrivals & departures 1999-2000, 2005 -present
- Most flights 2006



From the Dispatch Desk

David Keech - Senior Captain B727



Delta Dispatch and Real Ops

On Saturday, June 18, 2011, Delta Virtual Airlines, partnering with Salt Lake ARTCC (ZLC), conducted an event on a massive scale. Real World Ops took the best of the Real World and transposed it into our Virtual World. Pilots signed up for a designated departure or arrival flight into and out of Salt Lake City International Airport (KSLC). Being a hub for our real world counterpart, flights were staggered and staged like a real push. I cannot express my satisfaction as to how smoothly this event turned out to be. Sure we had some issues, but we worked through them and were able to push some tin. Delta Dispatch provided clearance and squawk code for each aircraft departing SLC. Luke Jones, Events Director, provided ramp services for our fleet. Like in the real world, pilots got their clearances from the DVA Dispatcher and verified the squawk code. They in turn contacted the Ramp Controller, once connected to Vatsim. They were then instructed push, start and taxi to a hold spot, just like in the RW. Once at that spot, they were switched over to ground. When it worked well, aircraft flowed out of the terminal easily. Arriving aircraft were again switched over to the Ramp frequency when entering the ramp area.

ZLC was happy to have the traffic and it seems our neighboring ARTCC's got the overflow. What we learned most was that a lot of people haven't used Dispatch in the past. I highly encourage everyone to try to use the client and more importantly a live Dispatcher before they fly their next flight. Many who flew the event were amazed at what it can do. Don't be scared, we don't bite! The lessons learned from this event will carry through to our next event.

Until then, enjoy the program for all its intents and purposes, and be careful of the Wasatch mountain range, like below when departing SLC to the east! Special thanks to Scott Clarke and Jon Snoops and the rest of the ZLC ARTCC team for letting us play in their backyard, to Tom Housworth for slaving over the Dispatch screen for several hours, Luke Jones for playing Ramp Controller and putting this all together with Dylan Neidorff and most of all, the pilots for their patience and understanding who flew this event. You guys ROCK!



B752 by Dave Keech

From the VP of Training

Scott Clarke - Senior Captain DC8-61



Delta Virtual Flight Academy

Delta Virtual Flight Academy received its VATSIM Authorized Training Organization (ATO) certification on December 30, 2010. In the past seven months, we have graduated 200+ pilots in our Delta Virtual OnLine Pilot course (OLP) which qualifies them to receive the VATSIM P1 rating.

This course was the beginning of a new computer training approach for the Delta Virtual Flight Academy, originally started in 2006 by George Lewis, to provide individual training and current information to its members on the virtual flying hobby. With this revamped program, more students have been able to learn and take the course(s) at their own pace and participate in our programs.

The next stage will be the introduction of the following courses: (1) **VFR OnLine Pilot** (2) **Commercial OnLine Pilot** (3) **IFR OnLine Pilot** and (4) **ATP OnLine Pilot**. All of these courses will mirror the established course outline of the **OnLine Pilot course(OLP)**; computer based knowledge using Delta VA created manuals and articles, AIM, FAA training handbooks and other aviation resources available to our pilots. We have created a pool of test questions on many subjects using this knowledge base to challenge our pilots. Each course will be completed with a satisfactory passing of ACARS based stage checks (check rides), so the pilot can demonstrate his flying skills and knowledge to our instructors.

Our courses will be submitted to VATSIM at the end of their development in order to receive the ATO approval.

VFR OnLine Pilot

This course will emphasize VFR knowledge, procedures and flying. The pilot candidate will learn about visual flying techniques, basic navigation and instrument work. VFR ATC voice communications and flying VFR on VATSIM will be demonstrated and graded using our ACARS based check rides.

The written test will require aeronautical knowledge in airspace rules and procedures for the airport where the solo flight will be performed, flight characteristics and operational limitations of the aircraft to be flown.

The pilot will demonstrate flying maneuvers and procedures appropriate to the aircraft to be flown, including, taxiing or surface operations, engine run-ups, takeoffs and landings

(normal and cross-wind), airport traffic patterns, entry and departure procedures, flight at various airspeeds from cruise to slow flight and ground reference maneuvers.

Commercial OnLine Pilot

This advanced course will get the student candidate ready for the IFR OnLine Pilot course with tighter flying requirements and cross-country flying on VATSIM. The written portion of this course will emphasize commercial knowledge standards in such areas as weather information, cross-country flight planning and national airspace system.

The flying portion of this course will cover collision avoidance, wind shear avoidance, wake turbulence avoidance, normal and crosswind takeoff and climb, short and soft field operations, steep turns, stalls, spins, emergency approaches, landings and flying on VATSIM.

IFR OnLine Pilot

Using the current FAA Instrument Flying Handbook, course syllabus and practical flying exams as our knowledge and testing data base, this course will be the most difficult and rewarding for the virtual pilot. It will include heavy emphasis on chart reading, precision and non-precision approaches, SID/STAR flying etc., inclement weather and low ceilings will add to the realism of this course. By using our new ACARS program, there will be number of instrument stage check rides to test the pilot's practical flying skills and abilities.

The candidate for this course must have completed the OnLine Pilot(OLP), VFR and Commercial Online pilot courses and have at least 50 hours of cross-country flight time as pilot in command logged on ACARS and VATSIM. Each cross-country must have a landing at an airport that is at least a straight-line distance of more than 50 NM from the original departure point.

The candidate will be able to demonstrate their knowledge in air traffic control clearances and procedures, flight by reference to instruments, navigation systems, instrument approach procedures and emergency operations.

One of the ACARS check rides will consist of a flight of 250 nautical miles along airways or by directed routing from an air traffic control facility with an instrument approach at each airport and three different kinds of approaches with the use of

navigation systems. Other ACARS check rides will test the piloting and navigation skills of the virtual pilot.

ATP OnLine Pilot

Completion of this course will recognize the virtual pilot who has been tested to the highest level of piloting and demonstrates the knowledge and flying skills to handle all phases of Virtual Airline flying.

The academy will be developing individual courses as needed, such as "Cross the Pond" flying, "How to fly a DVA Event", advanced aircraft flying programs and a program "check pilot" position for many of the aircraft stage programs.

Note: The information contained in our courses and flight academy programs is for flight simulation use only.

Looking forward to seeing you in one of the many Flight Academy courses in the future.

We are always looking for more staff and instructors and we feel that we have some of the best at Delta Virtual in the Academy.

Jim Warner (DVA2533) Director of the Delta Virtual Flight Academy

Andy Kaufmann (DVA3931) Instructor - develops training programs for ACARS, Squawkbox, FSINN and has helped the academy develop its document library with such topics as "How to Read Charts" and the "ACARS manual" for the Academy check ride flights.

Michael Brown (DVA 3196) Instructor - Michael helps our students to progress through the various courses, submits check ride reviews, responds to questions and various other administrative tasks.

Three new instructors have joined the Flight Academy to work on these new courses.

New additions are:

Danny Hull (DVA 3191)

James "Danny" Hull (DVA 3191) is a recent addition in the Delta Virtual Flight Academy as a flight instructor. Danny began flying flight sims in 1996 and joined Delta Virtual Airlines in 2006. He is presently a Captain and flies a B747-400.

Currently holding an real world ATP and Combat Fighter Pilot ratings, he flies an F16C for the USAF. He started flying out of Centennial Airport in Denver at the age of 13, flew gliders for a few years and soloed at 16. At 17, he began working on his single engine PPL, and earned that in May 2000. He then attained Instrument, Commercial, and Multi-Engine Commercial ratings and was subsequently hired by Great

Lakes Airlines in Dec of 2004 and flew with them for a year before leaving for Air Force pilot training. He has flown everything from a C-172, B-1900D to the F-16C.

In his spare time, Danny enjoys the outdoors, playing sports, traveling or going on cross-country flights. He likes to fly aerobatics in his uncles RV-4. He says his favorite maneuver is the hammer head.

Danny will be working on the development of the new VFR Online Pilot, Commercial, Instrument and ATP courses for the Flight Academy.

Matt Young (DVA 1008)

Matt joined Delta VA in 2002 and is a Senior Captain in the DC-8 program. He started simming with Flight Unlimited II in 1998 and then switched to the FS series in 2001 shortly before FS2002 came out.

He has been flying since he was a small child because his Dad has always had a plane, and he finally took the plunge and got his certificate, after anticipating a need for business travel.

Presently a Purdue engineering student, Matt continues working to complete his instrument rating. He will be developing the many knowledge-base documents and course outlines needed in the flight academy.

Lionel M. Holguin, Jr. (DVA 4583)

Lionel M. Holguin, Jr. (DVA 4583) began flying flight simulation in 1995 and joined Delta Virtual airlines in 2007. He has served DVA as the Boeing 777 program Assistant Chief Pilot and he is presently a Senior Captain in the DC-8-61 program where he flies a Boeing 707-332 .

He started flying a Cessna-152 at the Albuquerque, NM. Coronado Airport, and has flown the Beechcraft King Air 350, Beechcraft 1900C/D and C-12. After leaving the U.S. Army, he worked on the RAH-66 Comanche program where he worked on the transfer of technology from the cancelled program to present day AH-64D, UH-60 and CH-47 rotorcraft airframes.

Lionel presently works for the U.S. Army Aviation Missile Lifecycle Management Command [AMCOM], where he serves as the Program Manager for the Non-Standard Commercial Fixed Wing and Rotorcraft for Foreign Military Sales cases. He has also taught Computer Science at Athens State University as an adjunct professor of science for the past seven years.

Lionel will be working on the development of the new Online Pilot courses for the Flight Academy.

NEWS

Delta Virtual and the Delta Flight Academy were featured in the Feb 2011 article "Virtually Real" written by Chuck Weirauch in The Journal for Civil Aviation Training on page 32. You can find the article at:

<http://www.halldale.com/magazines/cat/issues/cat-22011>

Test Pilot

by Trevor Bair, Senior Captain DVA1690

Think you've got "the right stuff?" Try your skills at answering these eight questions, then check your answers on the back page. Have fun!

1) When air molecules speed up, the pressure they exert:

- A) Decreases
- B) Increases
- C) Increases, then decreases
- D) Doesn't change

2) By land area, what is the largest airport in the United States?

- A) Atlanta Hartsfield-Jackson International Airport
- B) Los Angeles Internal Airport
- C) Chicago O'Hare International Airport
- D) Denver International Airport
- E) New York JFK International Airport

3) Who was the first US president to get a pilot's license?

- A) John F. Kennedy
- B) Ronald Reagan
- C) George H.W. Bush
- D) Howard Hughes
- E) Dwight Eisenhower

4) In 1971 it became law that you couldn't do what in an airplane?

- A) Hunt birds, fish or other animals.
- B) Drop any object onto the ground below.
- C) Act as pilot in command of a jet-powered airliner without an approved flight engineer.
- D) Fly above 12,500 feet MSL without use of supplemental oxygen.
- E) Pretend to be asleep while acting as pilot-in-command

5) Who was the first Air Traffic Controller?

- A) Elrey Jeppesen
- B) Bill Kindersley
- C) Albert Bond Lambert
- D) Archie League
- E) Jeffrey Myers

6) One knot is roughly equal to:

- A) 1 mile per hour
- B) 1.15 miles per hour
- C) 1.5 miles per hour
- D) 2.25 miles per hour
- E) 3.14159265... miles per hour

7) Put the following airport codes in order from East to West, starting at -100°W longitude:

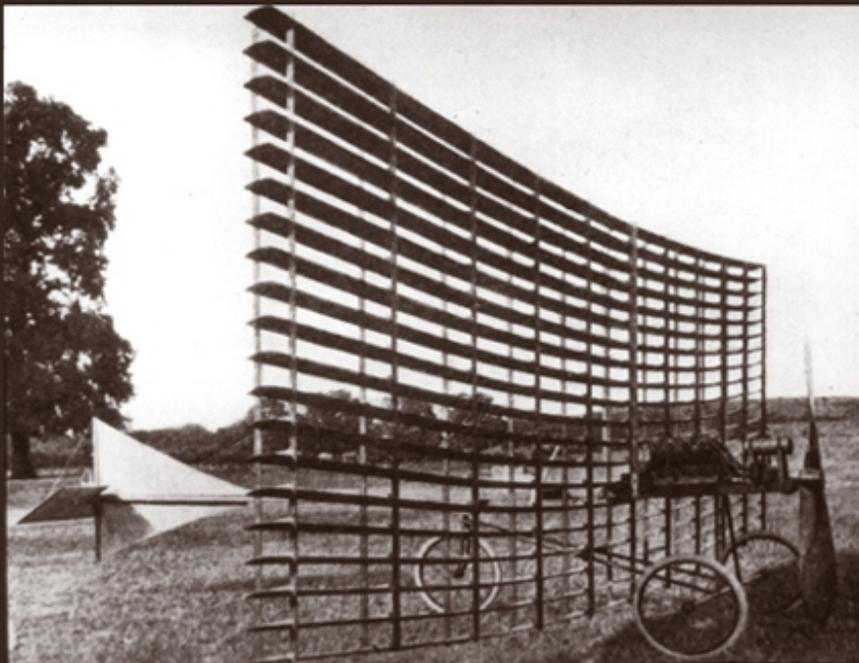
- KLAX
- PHNL
- KMCI
- KATL
- RJAA
- EHAM
- KDTW

8) What is the callsign for Delta Connection Carrier Atlantic Southeast Airlines?

- A) Skywest
- B) Candler
- C) Acey
- D) ASA
- E) Delta Connection

GREAT MOMENTS IN AVIATION

by Skip Simpson



While gazing through his venetian blinds, early aeronautical engineer Philo T. Mellen suddenly had a brainstorm.



B-737 cockpit by Freddy Carhaus



MD-11 by Vic DeSantis

And Around We Go...



A brief tutorial on how to set up a holding pattern in the PMDG 747-400X

by Tom Housworth

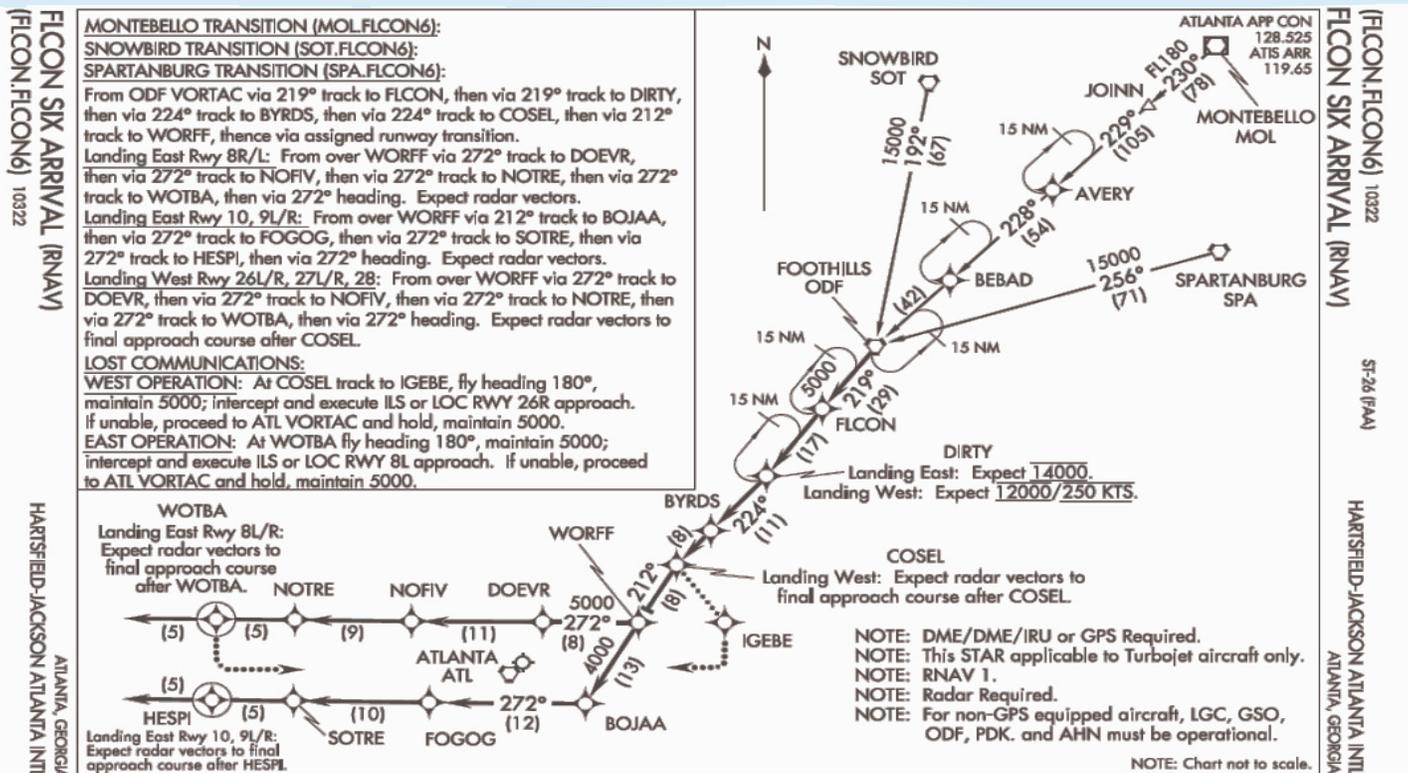
You should be familiar in adding FMC routes and know how to manipulate LEGS in the FMC. If not, consult the manuals!

Holding Pattern Entry procedures may be found here:

http://en.wikipedia.org/wiki/Holding_%28aviation%29 or <http://www.pilotlist.org/zahar/howto.htm>

First you need to consult the STAR charts for your destination airport. To make things easy, I have put together a "real world" example, so follow along with me...

In this example I'm flying a route from John F. Kennedy (KJFK) to Atlanta (KATL) and using the FLCON6 STAR with a planned Rwy 08L ILS approach. Initial routing is from the MOL VOR and from there the holding pattern I'll be using is located southwest at waypoint DIRTY. The FMC has been programmed with both SID and STAR info and I am flying in LNAV and VNAV modes. See chart below.



You can see above the holding pattern indicates entering on an inbound course of 219° (Direct Entry method), then a right turn to the reverse course of 039° before initiating the loop again to come back on the 219° heading, leg length is 15NM. The STAR indicates an altitude restriction of 14,000ft but no speed restriction because we are landing East. The FMC indicates the “Best Speed” for holding is 237 kts which has been entered. Note that my FMC is recommending an inbound course of 222° in order to maintain the correct course.

To insert the hold, first go to the LEGS page of the FMC and identify the waypoint at which the hold pattern should start. In my example DIRTY. Select this waypoint from the LEGS page into the scratch pad below.

Then press the HOLD button on the FMC. This now opens a new RTE HOLD page which initially will show the first HOLD pattern that contains the pattern for a missed approach if a STAR exists in your flight plan.



A new page appears. On the MOD RTE HOLD page, you should see your waypoint (DIRTY) at LSK 1L under FIX. Now insert the inbound course for the hold (222°). If left turns are required, type “/L” in the scratchpad and press the LSK 3L key.

Note: This may appear automatically at LSK 3L. If not, enter the inbound course (e.g. 222) by typing in the scratchpad and up-selecting to LSK 3L.

Now enter the correct speed and target altitude requirements for the hold. So let's enter “237/14000” and press the LSK 1R key. Then insert the length (in nm) of the holding pattern main leg by typing the distance in the scratchpad and up-selecting to LSK 5L. In this example, I'm assuming ATC has provided instructions to us to hold a 15nm leg. Finally, press the EXEC button on the FMC to update.



To confirm the holding pattern has been accepted, go back to the LEGS page of the FMC. As seen below, underneath DIRTY there is a “HOLD AT” qualifier.

Okay, looking at the ND (to the right) you can see now we're approaching DIRTY and the holding pattern and let's assume ATC have given us instructions to hold. Look at the MAP view on the ND. You can see the holding pattern is clearly marked in pink.



As we approach the DIRTY waypoint, we automatically begin a right turn and begin our first loop. We are still in LNAV and VNAV modes and we are positioned at 14000 and a speed of 237kts.



Now we are in the holding pattern and travel back in the opposite direction on a bearing of 039° for 15nm. At the end of this leg, we proceed to bank right again to come back on the original 219° heading. At this time, we have almost completed one loop. Let's assume we have now have clearance from ATC to exit the holding pattern. As we begin our approach to DIRTY for the second time, let's access the FMC. again and then press the HOLD button.



The following page (to the left) is displayed on the FMC. Now click on LSK 6R which will arm (not activate) the holding pattern exit.

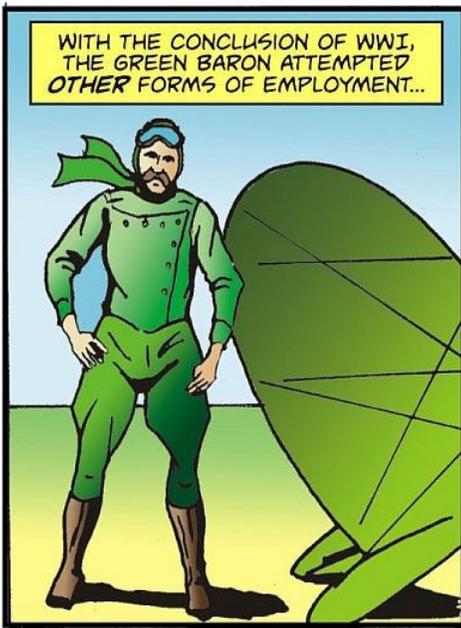
Once on the final straight leg of the loop, press the EXEC button on the FMC. Pushing the EXEC button earlier than this will turn the aircraft towards BYRDS at an earlier time and prematurely shortcut the loop. This now tells the FMC to move to the next waypoint in the LEGS page and continue with the descent and approach.

Now the holding pattern is finished and we continue with the STAR, approach and descent as per existing legs in the flight plan.

That's how to fly a simple holding pattern on the PMDG 747-400X!

Happy landings!!!





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Meet The REAL Green Baron!

David Keech...aka "The Green Baron" is DVA's current Director of Dispatch Operations and former VP of HR. David has been with the VA since June of 2002 and is celebrating his 9th year with the VA this month! David is in the real world, a Human Resources Manager for a large global electronics company, located in Charlotte, NC, where he resides with his wife and soon-to-be teenaged son.

David received that colorful moniker, while going through the PPL course. According to sources, he had a propensity to fly "low and slow," possibly taking out a few trees along the way! Regardless, DVA is glad to have "The Green Baron" as part of our staff.



How To Fly On



an ongoing series by Trevor Bair



Editor's note:

For many, VATSIM, the Virtual Air Traffic Simulation network and IVAO, International Virtual Aviation Organization, are integral parts of their virtual flying experience. Still many others are relatively new to online flying or are looking to log their first online flight. This series will help new and experienced online flyers learn more about getting the most enjoyment, realism and satisfaction out of the online flying experience. Over the next several issues, Delta FLY! will walk you through everything you need to know when flying online and creating a realistic virtual airline experience.

Before we begin, it should be noted that this series is strongly supplemented by the Delta Virtual Airlines Online Flying Manual available in the DVA Document Library. This guide will take you through the process of downloading and setting up your software and on to flying online for the first time. I strongly recommend referring to the Online Flying Manual if you're new to online flying.

Background

Before we get flying, let's take a very brief look at VATSIM's origins so that we may better understand the network. From VATSIM's website:

"The Virtual Air Traffic Simulation Network, known as VATSIM.net or "VATSIM" was created in 2001 by a group of individuals who came together with a goal of creating an organization which truly served the needs of the flight simulation and online air traffic control community. With an eye towards more than just providing a network of computers for users to log into, VATSIM is an online community where people can learn and, at the same time, enjoy the pastimes of flight simulation and air traffic control simulation all while making new friends from all over the world."

VATSIM brings together real people, virtual pilots and virtual air traffic controllers, from all over the world and provides a network whereby everyone can enjoy the hobby in the most realistic way possible. With over 200,000 members worldwide, if you're not flying on VATSIM, you're missing out!

"Preflight"

While every pilot who logs into VATSIM wants full ATC for their entire trip, the likelihood of that being the case is oftentimes remote. But, there are certain considerations you can take into account to ensure that you are able to get the most exposure to ATC as possible.

ServInfo:

Before any online flight, I refer to ServInfo to determine what airports currently have ATC and what airports, TRACONS, and Centers are likely to be staffed for my virtual trip. Loading ServInfo will give you a good picture of the ATC staffing you can expect and helps you mentally prepare to know what positions and frequencies you'll be using. Once you connect to ServInfo, pay attention to not only the facilities that are staffed, but also the length of time for which they've been staffed.

Some ARTCCs have controller staffing policies that state ATCs should be logged in for a period no shorter than 30 or even 45 minutes as a courtesy to pilots. So, if you load ServInfo and see someone who has been on for, say, 25 minutes, I know there's a pretty good chance they'll be online when you connect to the network once you finish the rest of your preflight. But, fair warning, if you want to better your odds that they'll be there, you will have to complete the rest of your flight planning as quickly as possible so that you can log into the network and start communicating. This means that the bulk of your flight planning will either need to be done in advance, or you'll need to rely on sources that can be quickly and readily accessed. So, let's look at how to do that.

Flight planning

For many, one of the most attractive aspects about flying for DVA is that you can put as much effort into your flying as you like. If you want to complete a flight with ultra-realistic settings, full dispatch, fuel planning and weight and balance, you can. On the other hand, if you want a more casual "get in and go" sort of flight, you're welcome here, too. We cater to all interests and abilities.

Similarly, the amount of flight planning you do when flying on VATSIM is really up to you. However, I would issue a word of caution against doing too little flight planning. For example, filing a "GPS direct" flight plan route is a good example of too little planning and leaves a huge amount of room for improvement. Fortunately, finding the route is among the easiest pre-flight tasks you'll be asked to complete thanks to websites such as simroutes and flightaware, as well as DVA dispatch.

As you know, there's much more to flight planning than figuring out your route. Fuel, weight and balance, weather, NOTAMs, etc. all must be considered. Sometimes though, the key is striking a balance between completing your "paperwork" and getting online quickly. This can be especially true when you're trying to log onto VATSIM in order to catch ATC coverage at a distant airport. As you can image, the more of these items you can get out of the way before you connect the better. We've put together a quick reference list to the right to help you get these items out of the way as quickly as possible.

Lastly, before you fly, you should always check the DVA schedule to ensure that your desired flight is listed and scheduled for that day. This will ensure that you receive credit for the flight since, in most circumstances, a flight that is not listed on the schedule will be rejected. Luckily, the process of verification is pretty simple and should take less than a minute:

Once logged in, use the DVA "Find a Flight" link and enter **ATL** in the Departing from text entry field and then enter our destination, **TPA** in the Arriving at field. I also like to sort by departure time when choosing a flight. Press "Search Flight Schedule" and voilà, you have a list of acceptable flights between your two airports.

Often, when I don't have a particular airport pair in mind but rather just a departure airport or just an arriving airport, I will use the search in a more open-ended way by entering the desired departure or arrival airport only before searching. Narrowing search criteria by entering equipment type or sorting by distance flown are also helpful in these cases.

Enough talk! Let's get started...

Today, we're going to use the DVA website, FlightAware, delta.com and a combination of other web resources to determine the route, flight details, and other relevant information for a hypothetical flight from Atlanta (KATL) to Tampa (KTPA).

First, let's look at the route: We already know our flight number is DAL2191 and we confirmed it on the DVA schedule. To get the route, simply go to flightaware.com and enter Delta as the airline and 2191 as the flight number, then press "Track Flight". What returns is not only the flight route you're looking for, but also a helpful amount of related flight information. I pay particular attention to not only the flight route, but also the cruise speed, cruise altitude and flight time. We will use these in our own flight plan when connecting to the VATSIM network. If you'd like, jot down this information for quick reference later.

DAL2191 | B752/Q

Route: THRSR5 LUCKK SZW FOOXX3

Flight time: 53 mins

Speed: 477 knots

Altitude: FL330

Now that we've got the route and other relevant flight information, let's continue. Assume we have already accessed the NOTAMs, and have the weather for our departure and destination airports. Additionally, we've used DVA ACARS to estimate and load the appropriate amount of fuel we will need for our trip and performed weight and balance calculations using ACARS or one of the many other freeware or payware utilities. Lastly, real-world passenger loads can be accessed for most flights via the internet. See our web links reference section and the related sidebar for more information.

Now, finally, it's time to start up the sim.

Once your sim has booted, it's time to figure out the correct place to park your airplane **before** you connect to VATSIM. If you're flying a regularly scheduled flight, the best place from which to get flight information is delta.com. Simply click on "Flight Status" and enter your flight number, in this case, 2191. Clicking "Check Status" gives us a lot of helpful information about our flight. Now we can see that Delta Flight 2191, a Boeing 757-200, is scheduled to depart Hartsfield-Jackson Atlanta International Airport gate A25 at 12:15 pm EDT and arriving at Tampa International Airport gate E64 at 1:43 pm EDT.

If you have payware scenery for a given airport, the chances are pretty good that you will be able to navigate your aircraft to the exact parking gate as your real world counterparts. Once you arrive, it is also helpful (but not required on VATSIM) to let ATC know what gate you'll be expecting once you land at your destination.

Let's review everything we've done to this point to prepare for our flight.

- Verified that our flight is a scheduled flight via the DVA flight schedule.
- Found the route, flight time, speed and altitude for our flight based on real-world information provided by Flightaware.
- Checked for relevant NOTAMs and reviewed the weather via the internet.
- Loaded passengers according to real world loads.
- Used Delta.com to determine the correct gates and confirm the times for our flight (delay's included, if you're so inclined!).

In the next issue we'll file our flight plan, connect to the network, and get our flight underway!

NOTAMs - www.notams.faa.gov Weather - aviationweather.gov
Airport Charts - dtp.myairplane.com Gates & times - www.delta.com
Passenger load - www.benedelman.org/travel/dseats/

EMB-120 program by Jim Warner - Chief Pilot and Flight Academy Director

The EMB-120 program is the first program for pilots and equipment for Delta Virtual Airlines. With over 1,000 pilots in our program, we are one of the largest programs at Delta VA. Our program includes all of the turboprop aircraft for DVA which includes the EMB-120, DHC-8, B1900, Saab 340, JS41, ATR-72, L-100, etc. Most of the flights that we fly are regional short hops to the smaller airports.

Some of the things that make this program so enjoyable is that our aircraft are able to fly into the airports that can't handle regular passenger or regional jets. We can fly into mountainous terrain airports and rural airports with short runways. We can fly the interesting Delta country routes from Alaska to Miami, and around the world. On the other hand, if you want to fly a 2 or 3 hour flight, most of our props can manage a 1,000 mile flight and still be legal.

Currently, I am in the process of setting up a EMB-120 group flight monthly where we can get together and have some fun. I will provide some mentoring for the new pilots and get some of our less active pilots out to experience flying with a group. We all recognize that this is a hobby and that you should be enjoying your

flying. Personally, I enjoy it a lot more when flying a powerful, responsive prop aircraft to wherever the schedule takes me.
Have fun in a Prop Plane!



737 Program by Don Thomas - Chief Pilot

"I often wonder about that faithful day way back when. That day Joe Sutter was playing around with a model of a shortened 707 fuselage. That day he was looking for the place to mount two engines so that Boeing could produce an aircraft that could take off and land in airports of smaller cities across America. That day when the idea hit him, "Under the wings. Yea, under the wings and directly to the wings, and let's lower the aircraft closer to the ground. Easier to service, easier to board. The passengers in the back won't hear that engine noise like the 727. That will work!"



I wonder if he had a clue that the 737 would be the most popular commercial aircraft of all time?

Just like I wonder if Luke Kolin knew when he founded Delta Virtual Airlines that the 737 Program would be one of the most popular. As I write this we have 463 active pilots. We have logged, in the past 14 days over 965 legs, over 650 of them in the 737-800, and we have a waiting list of young men and women wanting to transfer to the 737 program.

One reason, I think, is simple, the people that lead the program; Kyle Catlin, Bryan Klawiter, Scott Simmons, and our former Chief Pilot Alan Cluff. This group of men, in my opinion, were and still are some of the most helpful people you could ask for. A group of men that I am proud to be a part of.

The real reason the 737 program is so popular is that we have in our ranks 460+ men and women that just like myself, and the rest of the world have fallen in love with the 737, the "Guppy", the "Baby Boeing". The most popular passenger aircraft in the world, the 737."

SETHADN
CHIEF PILOT UPDATES

MD-11 Updates from Vic DeSantis - Chief Pilot

On behalf of the entire MD-11 staff, I want to thank all of you who have submitted and flown the MD-11 check ride over the past several months.

The MD-11 program remains one of the stable Stage 4 aircraft at Delta Virtual. Although MD-11 service was formally discontinued for real world Delta, its popularity among the existing roster of pilots and those seeking its rating remains steady. We attribute this plane's resilience to the outstanding model PMDG has provided in its payware version and to the many challenges associated with the fleet bird.

Big, heavy and powerful, the MD-11 provides its pilots with myriad of flight options from shorter domestic routes to international long-hauls. For those familiar with or just learning the nuances of its flight management system, the bird also offers an extended variety of capabilities including the challenging "offset" flight route required for completion of the check ride in the PMDG version.

Highly automated in its systems, the MD-11 offers pilots the ability to employ computer managed phases of flight or a hands-on approach. Mastering the hand flying of this aircraft in either version is a true testament to piloting skills and airmanship.

Art Forsha, Assistant Chief Pilot

Eric Paul, Assistant Chief Pilot

From the L-1011 Chief Pilot - Don Baker

The number one reason for failing the L-1011 Check Ride is to high a V/S on takeoff.

The L-1011 is not a rocket. She does not takeoff with a V/S of 4000-6000FPM, which is what I have seen on the Check Rides. The L-1011 takes off with the initial V/S of 2600FPM. Once cleaned up, flaps/gear up, set the V/S to 2400FPM. After reaching 10,000ft, set in 1800FPM. The cockpit should look like the picture below when ready for takeoff. The V/S is set for 2600FPM. The Alt is set and armed giving you the Pitch Steering bar which you are to follow.

Treat her like the old gal she is. Nice and easy.....

A320 Program Update from Jorge Rojas – Asst. Chief Pilot

The Airbus A320 program is rapidly growing and expanding with more pilots every day. There are currently over 300 pilots that are part of the program. Pilots fly about 170 hours every week, contributing to the program's success! Along with the A320, the program includes the A319, as well as the A318, also in wide use throughout the virtual airline. The A320 can perform flights around the country, and is one of the aircraft that can be used for short and medium sized hops.

Common errors on the checkride include pilots having high pitch rates during takeoff. A good way to correct this is by making gentle adjustments to the aircraft. Don't pitch too far up, the aircraft takes a bit of time to respond, making gentle and small adjustments will keep the aircraft under control. Flying a correct ILS approach is also very important. Watching your altitude is crucial, and should be compared to what the approach chart says, it can be found in multiple places. One of those sources is the DVA pilot center. On behalf of the A320 program, we can't wait to welcome you here!



A Face.....

With a Name



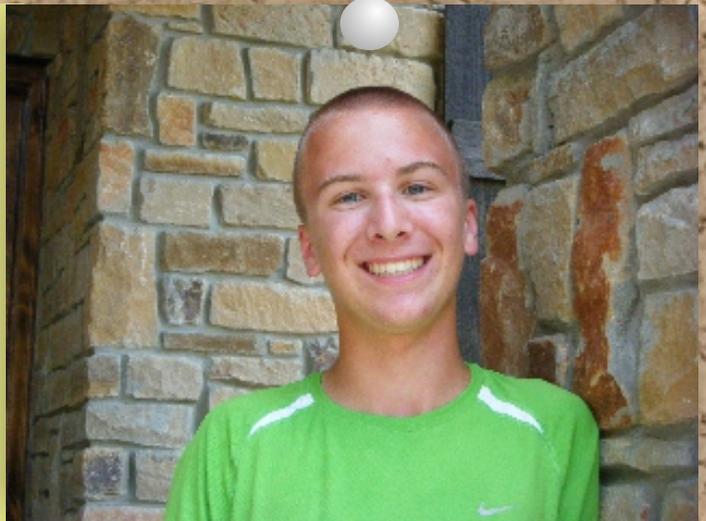
My Name is Moiz Shakeel. I currently live in Guelph, Ontario, Canada. I am 17 years old and in grade 11 at my high school. I have been fascinated with aviation from a very young age and I have never looked back. I started flight simming at the age of 10, and joined Delta Virtual Airlines last June. After joining DVA I started to notice the images people were taking and posting on the water cooler and image gallery. So I started to take images of my flight simming as well and I have found great success with it. My photos will always have one of three elements in them, either the sun, water body's, and or clouds. With these elements my photos usually turn out rather well. Thank you for all the support DVA and AFV.



Fellow DVA Pilots,

I am entering into my sixth month as a staff member here at DVA, during which time I have been serving in the role of the Boeing 747-400 ACP. It has been hard work, especially at first when I was trying to get settled in and adjusted to my new role, but it has been very rewarding. As many of you know, I am very fond of the 747 so I was absolutely thrilled to receive a message from Chief Pilot Rob Morgan asking me to be his new ACP. This offer was quickly accepted and it has been a joy to work not only with Rob (I doubt a better CP exists!) and the rest of the DVA staff, but to work with all of the pilots here at DVA seeking their B747 rating. You virtual pilots are a great group of people; all I can say is keep up the good work! I hope to see many more pilots earn their keys to the Queen of the Skies in the months ahead. If you ever have any questions Rob and I are just an email away.

Blue Skies!
Nicholas Carpenter



From the Editors Desk

Tom Housworth - Captain B777



Hello and welcome to the new look of Delta FLY!

Quite a few changes have been made in our Newsletter since the last edition. We've added a 3rd member to our Staff and I'm very excited about what he'll be bringing for us all to read.

Please welcome **Trevor Bair Asst. Editor – Content**.



Additionally as we migrate to a more modern “trade magazine” look, **Skip Simpson** finally convinced me to switch from MS Publisher to Corel Draw to create our newsletter. The learning curve has been almost vertical for the past couple months but I think it's been worth the effort. I hope you do too!

We've added two new Sections that will feature new information with each release. “**How to fly on VATSIM**” (new pilot education), and **Delta Hubs** will include interesting facts and figures on Delta Hubs throughout the world.

Following this Edition we will begin a semi-annual publication schedule with release dates as follows:

- March (Anniversary Edition)
- September

Please don't Text and Drive!!

Your suggestions and comments are always welcomed, please send to editor@deltava.org

GREAT MOMENTS IN AVIATION by Skip Simpson



Emerging from his plane, aviation pioneer Otto Von Wigenbottem was said to remark, “That runway was short, but it sure was wide!”

TRANSITION is the Key Word

by Tom Housworth

Flying in the US and adjusting our altimeter is a fairly uncomplicated process. When flying below 17,500 we use the Altimeter provided by ATC or the nearest Weather Reporting Facility. When we climb to an altitude above 18,000 we begin using Flight Levels and set the altimeter to 29.92 which ensures that aircraft flying the appropriate altitude for direction of flight will be separated vertically by at least 1000'. Sounds easy enough doesn't it? Well there are a few more factors that have to be taken into consideration.

When flying outside the US and depending on your location, this process can become considerably more difficult.

This article provides a brief overview of the differences and will familiarize you with essential terms and definitions.

Definitions

Transition Altitude - The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.

Transition Level - The lowest flight level (FL) available for use above the transition altitude.

Transition Layer - The airspace between the transition altitude and the transition level.

The **transition altitude (TA)** is the altitude above sea level at which aircraft change from the use of altitude to the use of flight levels. When operating at or below the TA, aircraft altimeters are usually set to show the altitude above sea level. Above the TA, the aircraft altimeter pressure setting is normally adjusted to the standard pressure setting of 1013 (millibars) or 29.92 inches of mercury and aircraft altitude will be expressed as flight level.

In the United States and Canada, the **transition altitude is 18,000 ft** feet and the airspace above is known as the **Standard Pressure Region**. With me so far? OK, now for a little twist.....

In Europe, the transition altitude varies and can be as **low as 3,000 ft**. There are discussions to standardize the transition altitude within the Eurocontrol area.

When descending below the transition level, Air Traffic Controllers and pilots start to refer to altitude of the aircraft by setting the altimeter to the QNH for the region or airfield. Note that the transition level is, by definition, less than 500 ft above the transition altitude. Aircraft are not normally assigned to fly at the transition level as this does not guarantee separation from other traffic flying (on QNH) at the transition altitude; the lowest usable flight level is the transition level plus 500 ft.

North America

When the Barometric Pressure is at or above 29.92, FL180 becomes the lowest useable FL. If the altimeter setting is lower, the lowest useable FL becomes FL190 or even FL200.

Guidance on changing barometric pressure setting:

1. All changes shall be made in the standard pressure region (ie above 18,000 ft)
2. The change is to take place just after entering or just prior to leaving the standard pressure region. In practice, this will see the pilots changing to QNE (depending upon the altimeter subscale) as they climb through 18000 feet. If the cleared level is FL180, an early change is prudent.

Descending, even when cleared to an altitude at the time cruising level is vacated, the altimeters will remain on standard pressure until just prior to the transition level.

continued on next page...



Europe

In Europe and much of the rest of the world, the transition altitude varies from airport to airport. Again, it is a fixed value and is published on the airport documentation, approach plates, etc. The transition level will "float" with the AN. and again, the TL is the lowest assignable level (pressure altitude) that will guarantee minimum vertical separation from an aircraft at the highest assignable altitude using local AN.

The "normal" barometric pressure setting procedure is a little different to that in North America. The procedure is:

- a climbing and cleared to a FL - set Standard Pressure Setting (ONE/1013 Mb);
- a descending and cleared to an altitude - set QN.

This is done irrespective of how far above or below the TL/TA you are at the time. The only exception is that when your cleared vertical profile (SID or STAR) has a specific altitude crossing restriction on it - i.e. cross DVR at FL160 or cross BRI at 4000', the altimeter must be left on the appropriate reference until the restriction has been satisfied. Again, both primary altimeters are changed at the same time. Once again, changing the sub-scale of the standby instrument is a function of Company SOP.

Fixed Transition Level

There are a few places that have a "fixed" transition level. One example is Aruba. There, the transition altitude is 3000', the transition level is FL45. Both values are published on the approach and departure charts. The space in between can only be used climbing and descending but not for level flight.

B777 by Moiz Shakeel

What do the Q codes mean?

Q-code - system developed when air-to-ground communication was by wireless telegraphy (morse code), enabling many routine phrases and questions to be reduced to three letters. Now largely redundant, except these:

- **QDM** - magnetic bearing to a direction-finding station
- **QDR** - magnetic bearing from the station
- **QFE** - atmospheric pressure at aerodrome elevation. With its sub-scale set to the aerodrome QFE an altimeter will indicate height above that airfield
- **QFU** - magnetic orientation of runway in use
- **QNE** - reading in feet on an altimeter set to 1013 millibars (standard pressure) when the aircraft is at aerodrome elevation
- **QNH** - altitude above mean sea level based on local station pressure
- **QTE** - true line of position from a direction-finding station
- **QUJ** - true bearing

I hope you found this article interesting and helped you to better appreciate the complexity of our world's Altitude Assignment criteria.

Sources:

- www.skybrary.aero/index.php/Transition_Altitude/Level
- www.en.wikipedia.org
- www.pilotfriend.com/pilot_resources



Parting Shots



L-1011 on final by Andy Kaufmann

parting shot - is defined as an act of aggression or retaliation, such as a retort or threat, that is made upon one's departure or at the end of a heated discussion.

Here at Delta FLY! we like to think of it as a way to leave you with the memory of a great screenshot taken while enjoying this fascinating hobby of Flight Simming.

If you'd like to see your picture here....please read instructions on page 2.

Test Pilot Answers

1A: Decreases **2D:** Denver International Airport (KDEN). At 33,457 acres (52,277 sq. mi; 133.40 km²), the airport is nearly twice the land area of Manhattan. **3E:** Dwight Eisenhower got his pilot's license in 1939. **4A:** Approved on November 18, 1971, the Federal Airborne Hunting Act prohibited airborne hunting of birds, fish and other animals. **5D:** Archie William League (August 19, 1907 - October 1, 1986). In 1929, he was stationed at the airfield in St. Louis, Missouri (now known as Lambert-St. Louis International Airport), and his first "control tower" consisted of a wheelbarrow. He used a checkered flag to indicate to the pilot "GO," or a red flag to indicate the pilot should "HOLD" their position. **6C:** One knot roughly equals 1.5 miles per hour. **7:** KMCI, KATL, KDTW, EHAM, RJAA, PHNL, KLAX **8C:** Acey. Atlantic Southeast Airlines (ASA) is a regional airline owned by Skywest. It currently operates regional flights for Delta Connection and United Express. Founded in 1979 in College Park, GA near Atlanta, the airline adopted "Acey" as its callsign, after Coca-Cola founder Asa Candler. From 1999-2006, ASA used "Candler" as its callsign, but reverted back to "Acey" in 2006.