

767-400 Fleet Newsletter

May 2015

This newsletter is published by the B767-400 Pilot Standards Team. It is intended to provide additional detail surrounding operational policies and procedures and aircraft technical information for the line pilots. The discussion of flight procedures herein is not intended to override or replace official guidance in the flight manuals. Where a conflict exists, the current flight manual governs.

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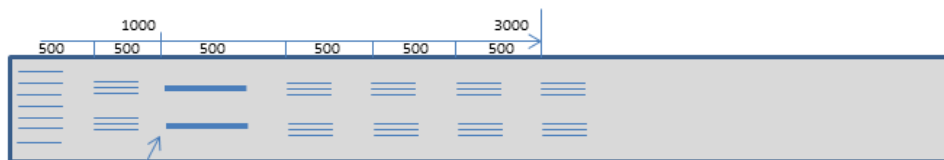
Ship 1820 in Skyteam colors!



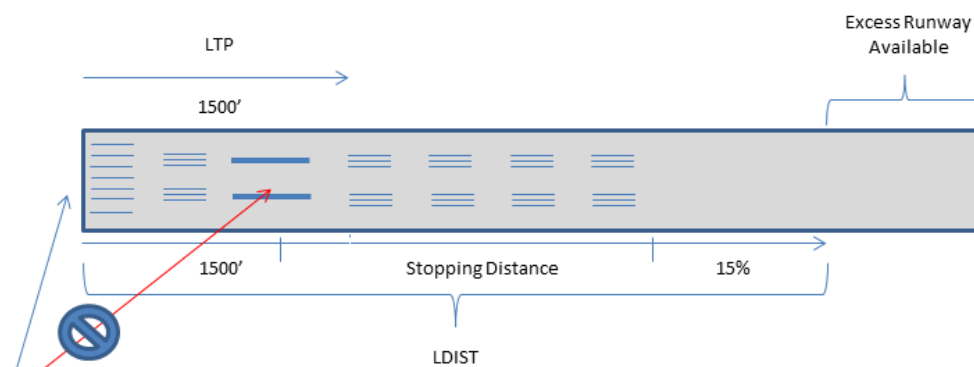
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It's Live – Landing Performance Request (LPR) is going live effective May 4th. This is a great tool for your toolbox and will help each of us land more precisely within the touchdown zone. I look forward to your comments and suggestions.

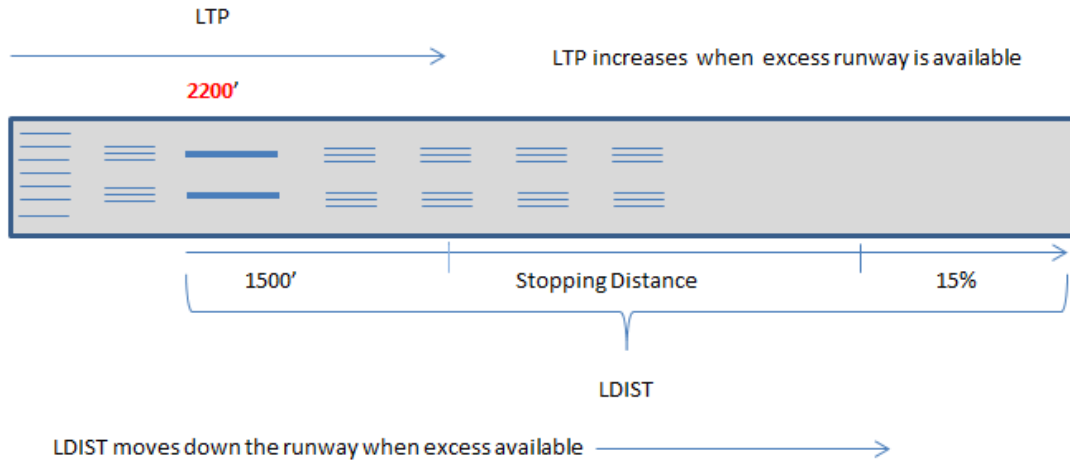


Landing Aim Points
1000' from landing threshold



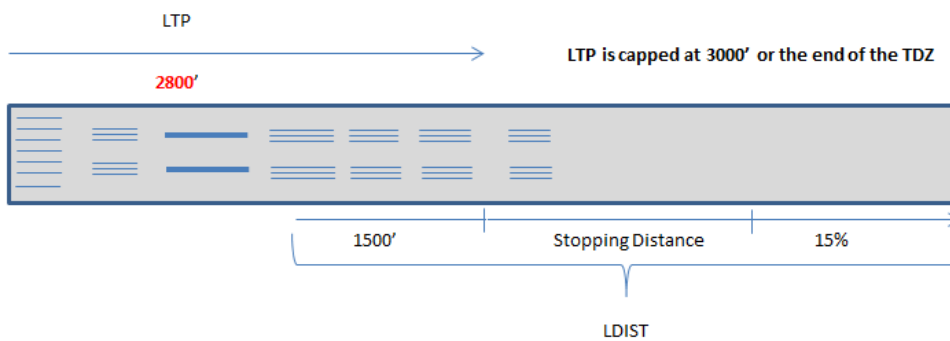
LDIST is compared to the Landing Runway Available as measured from the Landing Threshold...Not the Landing Beyond Glideslope distance

Good Braking Action



JFK 22L		8400
5*GOOD	LDIST	LTP
F25*B-AB3	7700	2200
F25 B-AB4	7000	2800
F25 B-MAX	6500	2800
F30 B-AB3	7500	2400
W 274/08	HW05	XW06

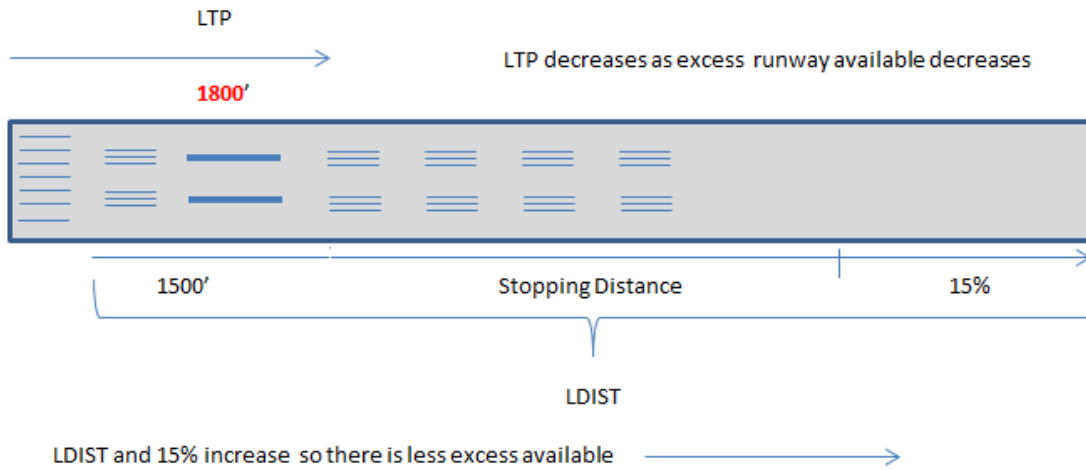
LTP can be no shorter than 1000' nor longer than the end of the TDZ



In this case, the end of the TDZ is $8400/3 = 2800'$. For a runway with 9000' available for landing the TDZ extends to 3000'.

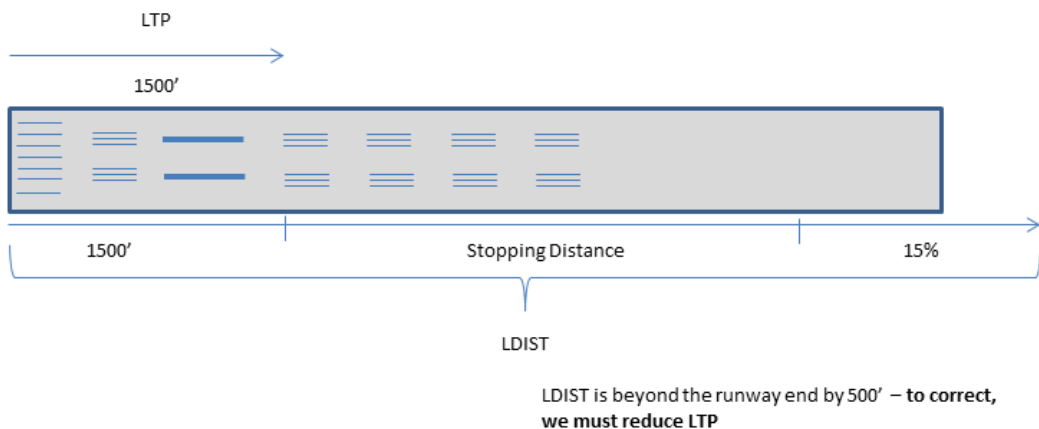
JFK 22L		8400
6*DRY	LDIST	LTP
F25*B-AB3	7100	2800
F25 B-AB4	6400	2800
F25 B-MAX	5400	2800
F30 B-AB3	6900	2800
W 334/11G16	TW04	XW15

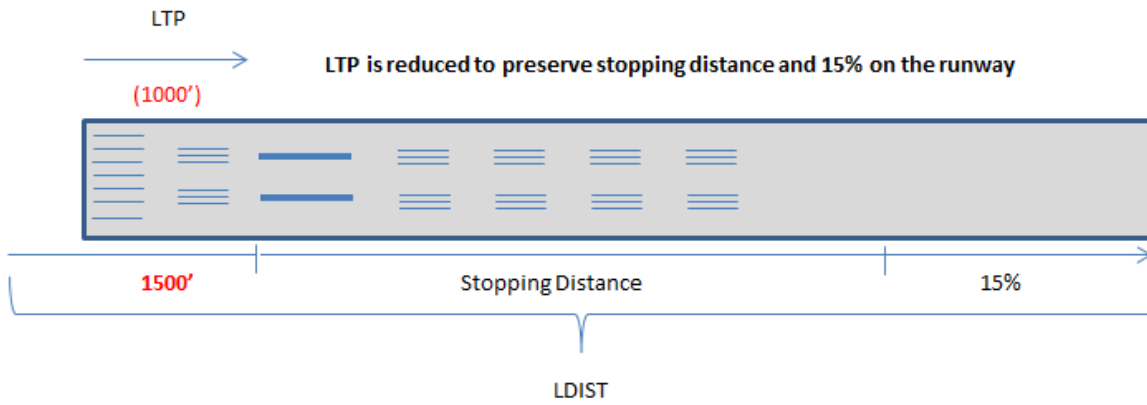
Medium Braking Action



JFK 22L		8400
3*MED	LDIST	LTP
F25*B-AB3	8100	1800
F25 B-AB4	8200	2000
F25 B-MAX	8100	2100
F30 B-AB3	8200	1700
W 274/08	HW05	XW06

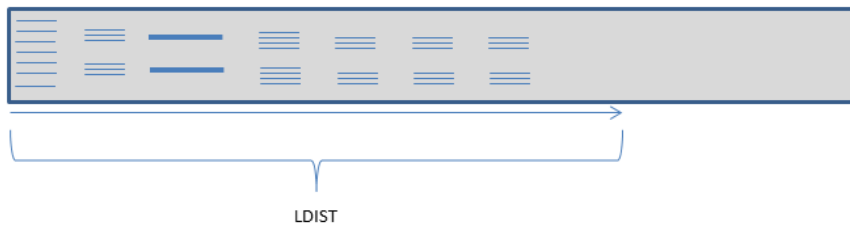
Poor Braking Action





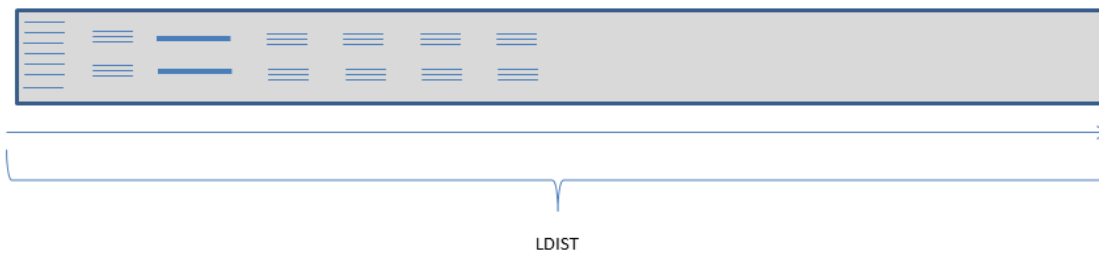
JFK 22L		8400
1* POOR	LDIST	LTP
F25*B-AB3	(8400)	(1000)
F25 B-AB4	(8400)	(1000)
F25 B-MAX	(8400)	(1100)
F30 B-AB3	(8400)	(1100)
W 274/08	HW05	XW06

Good Braking Action

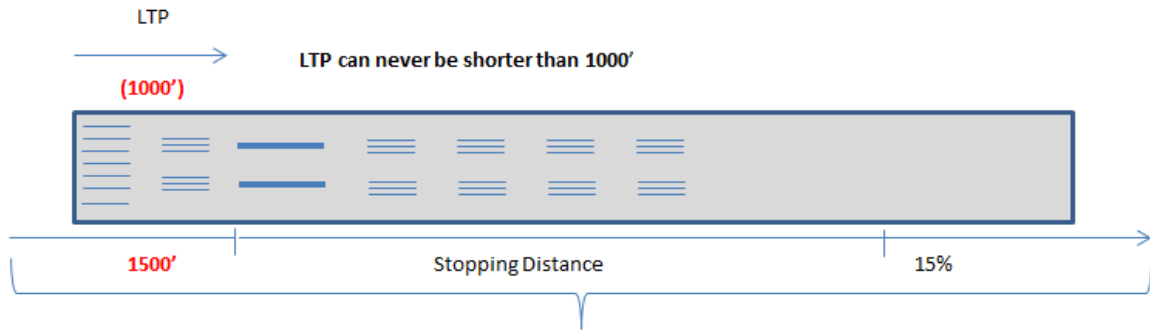


A long runway with POOR Braking Action can be more of a threat than a short runway with GOOD Braking Action. Rather than focusing on runway length, consider the Stopping Distance required in relation to the Landing Distance available.

Poor Braking Action



No Solution



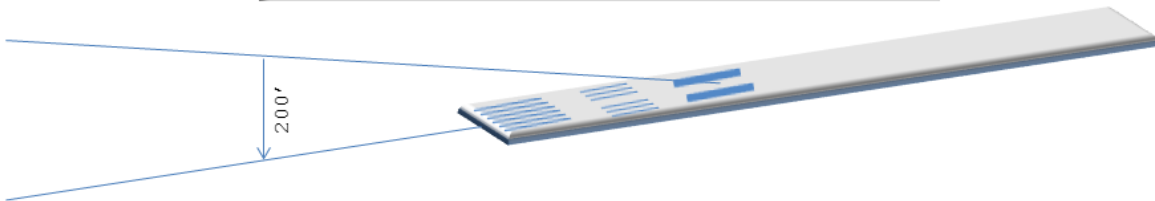
Stopping distance and 15% cannot be contained on the runway when LTP is reduced to 1000'. In this case, select another runway or review divert options.

JFK 22L		8400
1*POOR	LDIST	LTP
F25*B-AB3	----	----
F25 B-AB4	----	----
F25 B-MAX	----	----
F30 B-AB3	----	----
W 274/00	HW00	XW00

Adjusting The Landing Aim Point

Fly the glideslope or VASI/PAPI until approximately 200'. Then smoothly adjust the landing aim point towards the first set of runway markings.
Note: Typical glideslope intercept point is between 800-1200 feet from the landing threshold!

Adjusting the aim point should be a smooth precise maneuver as opposed to a large pitch change. The biggest obstacle to a precision landing is floating during the flare!



If a glideslope or sink rate warning occurs, acknowledge and adjust pitch. Do not prolong the flare, arrest the sink rate to achieve a touchdown by the LTP. **A Go-Around from an un-stabilized approach or long landing is always a safe option until the thrust reversers have been deployed.**

Braking Action vs Autobrakes

Many pilots believe that since autobrakes program a deceleration rate thrust reverse has no affect on stopping distance. While this may be true on a DRY runway and for some autobrake settings, it is not true when Braking Action degrades.

As tires lose friction on the runway surface, thrust reverse plays a larger role in determining stopping distance. To demonstrate this, look at the penalty for thrust reversers inop in relation to Braking action and autobrake settings.

Since thrust reverse is most effective at high speed, early selection and use to your aircraft limits will have a significant effect as Braking Action degrades.

Braking Action vs Autobrakes

Let's look at the penalty of no thrust reverse when the runway is DRY or Braking action is GOOD.

	AB 1	AB 2	AB 3	AB 4	Max AB	Max Manual	AB 3	AB 4	Max AB	Max Manual
CORRECTIONS	DRY (6)					GOOD (5)				
PER 1 KT HEADWIND	-50	-50	-50	-50	0	0	-50	-50	-50	0
PER 1 KT TAILWIND	150	150	100	100	100	50	100	100	100	100
PER 5 KTS ADD'L SPD	350	350	350	300	250	150	350	300	250	200
PER 10°C ABOVE ISA	250	200	200	150	100	100	200	150	150	150
PER 10°C BELOW ISA	-250	-200	-200	-150	-100	-100	-200	-150	-150	-100
PER 1% UP SLOPE	-200	-100	0	-50	0	-50	0	-50	-100	-100
PER 1% DOWN SLOPE	150	0	0	0	0	50	50	100	100	150
1 REVERSER INOP	500	100	100	0	0	200	100	100	300	300
2 REVERSERS INOP	500	100	100	0	0	300	200	300	800	700
MANUAL SPOILERS	300	300	300	300	300	300	300	300	300	300

Now look at the penalty when Braking action degrades to Medium or Poor

	AB 3	AB 4	Max AB	Max Manual	AB 3	AB 4	Max AB	Max Manual
CORRECTIONS	MEDIUM (3)				POOR (1)			
PER 1 KT HEADWIND	-50	-50	-50	-50	-50	-50	-50	-50
PER 1 KT TAILWIND	150	150	150	150	200	200	200	200
PER 5 KTS ADD'L SPD	350	300	300	250	350	300	350	300
PER 10°C ABOVE ISA	200	200	200	200	250	250	250	250
PER 10°C BELOW ISA	-200	-200	-200	-200	-250	-250	-250	-250
PER 1% UP SLOPE	-150	-250	-200	-250	-450	-500	-450	-450
PER 1% DOWN SLOPE	250	300	300	300	700	700	700	700
1 REVERSER INOP	700	800	700	800	1,700	1,800	1,700	1,700
2 REVERSERS INOP	1,700	1,700	1,700	1,900	4,500	4,400	4,500	4,500
MANUAL SPOILERS	300	300	300	300	300	300	300	300

Whenever Braking Action is less than GOOD, plan on early selection and use of thrust reverse!

Transponder – Transponder will be added back to the Pushback checklist. I can hear the cheering across the system! We are also making one significant change to the procedure. As you may remember, we used to wait until we received pushback clearance to turn on the transponder and then complete the checklist.

The new procedure will have you complete the pushback checklist, INCLUDING TURNING ON THE TRANSPONDER, as soon as all doors are closed. This means you could possibly sit at the gate for some length of time with the transponder on while waiting for pushback clearance. This is OK! We do not want to affect our D-0 times by having crews receive pushback clearance, turn on the transponder, complete the checklist and then start the push.

Oxygen Mask – The oxygen mask debate has surfaced once again. The regulation makes is clear that whenever a pilot leaves his/her duty station above FL250 the other pilot MUST have his mask on. This includes getting up to let someone into the cockpit.

Recently, a FAA inspector witnessed a crew not complying with the FAR and reported it to our FAA Certificate Management Office (CMO). Our CMO reminded us of the FAR and that they DO NOT have the authority to issue a waiver.

FAR 121.333

(a) *General.* When operating a turbine engine powered airplane with a pressurized cabin, the certificate holder shall furnish oxygen and dispensing equipment to comply with paragraphs (b) through (e) of this section in the event of cabin pressurization failure.

(3) Notwithstanding paragraph (c)(2) of this section, if for any reason at any time it is necessary for one pilot to leave his station at the controls of the airplane when operating at flight altitudes above flight level 250, the remaining pilot at the controls shall put on and use his oxygen mask until the other pilot has returned to his duty station.

Be informed and forewarned! FAA inspectors EXPECT to see a pilot on oxygen whenever the other crewmember leaves his/her duty station for any reason for any length of time. Note: On oxygen does not include having the mask in your lap!

Gross Navigational Error – Delta recently had a gross navigational error when a crew, from a different fleet, managed to be off position by 60 miles. The error occurred when they failed to recognize that the oceanic clearance was different from the filed flight plan route. In ATC speak “followed flight plan ISO clearance.” You could probably guess that ISO stands for InSteAD Of. This crew got distracted with other events and did not follow our oceanic clearance verification procedures...they work when followed!

Prior to Track Entry/Class II Entry (Off Airways)	PF	PM
Request clearance, if required, or fly ATC clearance	•	•
Oceanic Clearance Verification		
Referencing clearance, PM reads all Class II, off airways clearance waypoints, altitude and cruise Mach**		•
Referencing FMS, PF verifies all Class II, off airways clearance waypoints, by expanding & verbalizing the LAT/LON on the MCDU. Also verify altitude & cruise Mach are correctly loaded**	•	

Our fleet has done a fantastic job in the oceanic environment so let's keep up the great work and get the word out!

London Operations – CDA, Time based separation and single engine taxi. Here is a quick review:

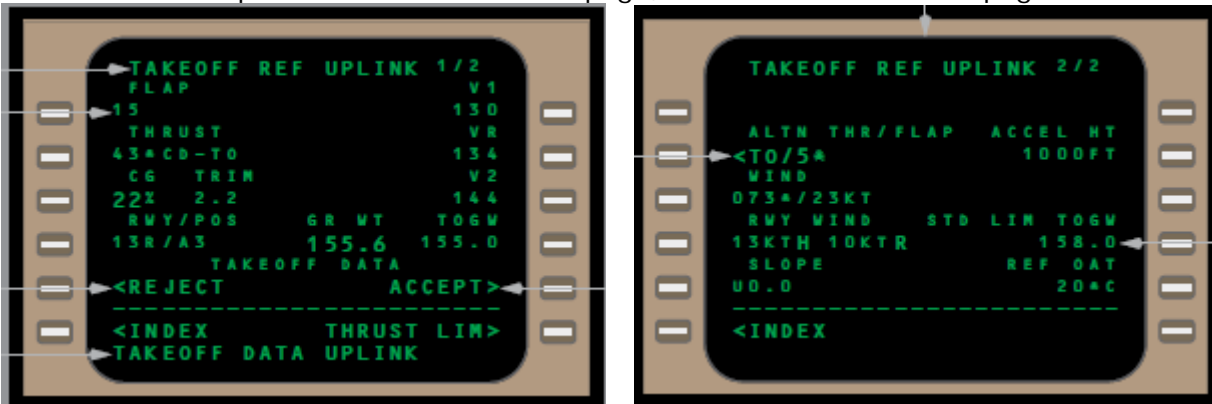
- CDA – Only tracked below 6000'. Use vertical speed to keep from leveling off between 6000' and glideslope capture. This is only about 3500' of descent. A CDA bust is counted if ATC sees level flight for 2.5 miles of track distance.
- Time based separation is the new norm for LHR approaches. ATC will assign speeds and they expect us to maintain them until 4 DME. If you need to adjust...advise the controller so you don't put the aircraft behind you in a bind. Whatever you do...Don't lie! The radar controller can see what we have set on the MCP. Big Brother is watching...and he has a British accent!
- Single engine taxi – There are only two things to remember:
 - Never cross a runway single engine when taxiing for takeoff (heavy and slow)
 - Expedite crossing single engine after landing (light and fast)

Heathrow is a very busy airport and they expect everyone to help the operation by moving quickly when cleared. We are the only airline permitted to cross a runway single engine and we want to keep this privilege!

TDU Quiz – Test your everyday working knowledge of how TDU works:

1. If the WDR displays more than one takeoff position for a runway, for example JFK 31L and 31L-KE, which one will be uplinked to the FMC?
 - a. 31L
 - b. 31L-KE
 - c. Both
2. If you get an updated zero fuel weight uplink but no takeoff performance numbers, what could be the problem?
 - a. A cosmic ray intercepted and destroyed the performance uplink.
 - b. The takeoff position pre-loaded in the MCDU is not on the WDR.
3. If your TDU performance uplink arrives with numbers but disappears after accepting, how can you get it back quickly?
 - a. Bring the runway position down to the scratchpad and then back on itself.
 - b. Wiggle the flap handle
 - c. Stomp you right foot three times.
4. If your WDR only contains runways with cutbacks, will TDU work?
 - a. Yes
 - b. No
5. Takeoff page 1 displays the aircraft current Gross Weight, page 2 displays the Limit Weight. As long as the GW is less than or equal to the LW, you have legal performance and do need not burn any taxi fuel.
 - a. True
 - b. False
6. How can you quickly select full thrust once an assumed temperature is loaded.
 - a. Delete the temperature
 - b. Line select key L2 on takeoff page 2 cycles between assumed temperature and full power.
7. Is 3000' ACCEL HT runway dependent for TDU?
 - a. Yes
 - b. No

8. How should the MCDU's be set up when waiting for the TDU?
 - a. It doesn't matter
 - b. The F/O cycles through the required pages and accepts
 - c. The Captain is on the PERF INIT page, F/O on the Takeoff Ref page 1



Answers:

1. B – TDU uplinks will only contain data for the shorter position when more than one position on a runway exists.
2. B – Not saying that answer 'A' could never happen.
3. A – Don't know why, but it usually works
4. B – We never uplink cutback data. The name is too long for the FMC to recognize
5. A – Never worry about taxi fuel burn again. Limit weight is the lesser of CLIMB and RATOW.
6. B – Yes it does
7. No – Although NADP1 departures are runway dependent, we can only store one ACCEL HT value per airport. If any runway uses NADP1 then we will uplink 3000' for all runways. No problem flying NADP1 when not required, or type and enter 1000 if desired.
8. C. All crew members must view the WDR and verify MCDU entries. By having the Captain on the PERF INIT and the F/O on the Takeoff Ref page 1, everyone can see the ZFW and Performance numbers which have been uplinked and accepted. In the future when we replace the WDR with LOAD DATA, the center MCDU will display the performance data so everything will be viewable to all without the need to cycle through the pages.

ASAP/ASR of the Month – When do we SLOP, Track or Random? The answer is ALWAYS! It does not matter...SLOP is normal procedure in the in Class II airspace for collision avoidance.

Opposite direction traffic from westbound NAT track

Four hour late departure out of DTW to LHR, around 230AM local, and the planned oceanic route was no longer acceptable to ATC. At about 30 minutes prior to coast out ATC gave us a choice of FL 290 for the crossing or a reroute that eventually brought us 4 degrees south of our planned route. We called dispatch to confer and decided to accept the south reroute.

Just before coast out, I went on break. When I got back in the seat, two opposite direction airplanes in rapid succession came 1000 feet directly above and one below our altitude. At that point it was evident that we didn't have an offset in, and neither did our opposing traffic because it was fuselage to fuselage...which is not a huge deal, but still an unnecessary increase in risk. I immediately put in an offset and we met a few more airplanes going opposite direction, but with a few more miles of separation.

Besides the obvious lack of offset, I believe we failed to take note of the westbound NAT tracks and to plot them for possible diversion procedures. We were all pretty tired, and didn't expect our new random track to be on the westbound routing.

Updates

Ship	Crew Rest	WiFi	ADS-B	Supp O2*	TCAS 7.1
1801	X	X	X	X	
1802	X	X		X	
1803	X	X		X	X
1804	X	X		X	X
1805	X	X	X	X	
1806	X	X		X	
1807	X	X		X	
1808	X	X		X	
1809	X	X		X	
1810	X	X	X	X	X
1811	X	X		X	
1812	X	X	X	X	X
1813		X		X	
1814	X	X	X	X	X
1815	X	X		X	
1816	X	X		X	
1817	X	X		X	
1818	X	X	X	X	
1819		X	X	X	
1820			X	X	
1821				X	X

All aircraft have been modified to carry supplemental oxygen; however the bottles will only be provisioned when the flight requires them. Bottles are required when operating above 68° North over Greenland.

Thank you for your continued professionalism, support for the 767-400 fleet and for making Delta Air Lines the best company in the business!

Chick

