

FL200 - or 2,000ft? International differences

Declan Selleck

11 May, 2016



The key to this incident in Ireland, just published by the AAIU, is the wording of a departure clearance to a corporate jet departing EIKY/Kerry – “Climb Flight Level Two Hundred”.

The crew report states: *“Our altitude climb instruction was “climb level Two Hundred”. We read back the clearance and began the departure. As we began to climb we had some confusion as to what the altitude clearance limit was as we were unsure what level Two Hundred meant. We levelled at Two Thousand feet to ensure we didn’t exceed any altitude limits”*

US operators are used to Flight Levels being that airspace above 18,000 ft, and in Ireland, as in much of Europe, Flight Levels can be as low as FL060 (6,000ft) – depending on the transition level – **this international difference appears to have been the root cause of the confusion.**

Standard ICAO phraseology dictates that “FL200” is Flight-Level-Two-Zero-Zero, but the UK in CAP413 suggest using “Flight-Level-Two-Hundred” to avoid confusion with FL210; this edict has been adopted de-facto many European ATC agencies.

The concern in this case, raised by ATC in Shannon, was that the aircraft levelled out at 2,000ft in the direction of high terrain – with, it appears from the report, real potential for CFIT.



The full report is **here**.

Eurocontrol - Cargo Flights alerts

Declan Selleck
11 May, 2016

In 2012, the EU put in place the EU ACC3 program – air carriers that fly cargo or mail from a non-EU airport to an EU airport must ensure that all cargo and mail carried to the EU is physically screened or comes from a secure supply chain which is validated.

Air carrier stations in third countries are required to have undergone an audit to obtain an EU Aviation Security Validation in order to acquire or maintain their ACC3 designation. This validation needs to be reissued every five years, according to the EU Regulations.

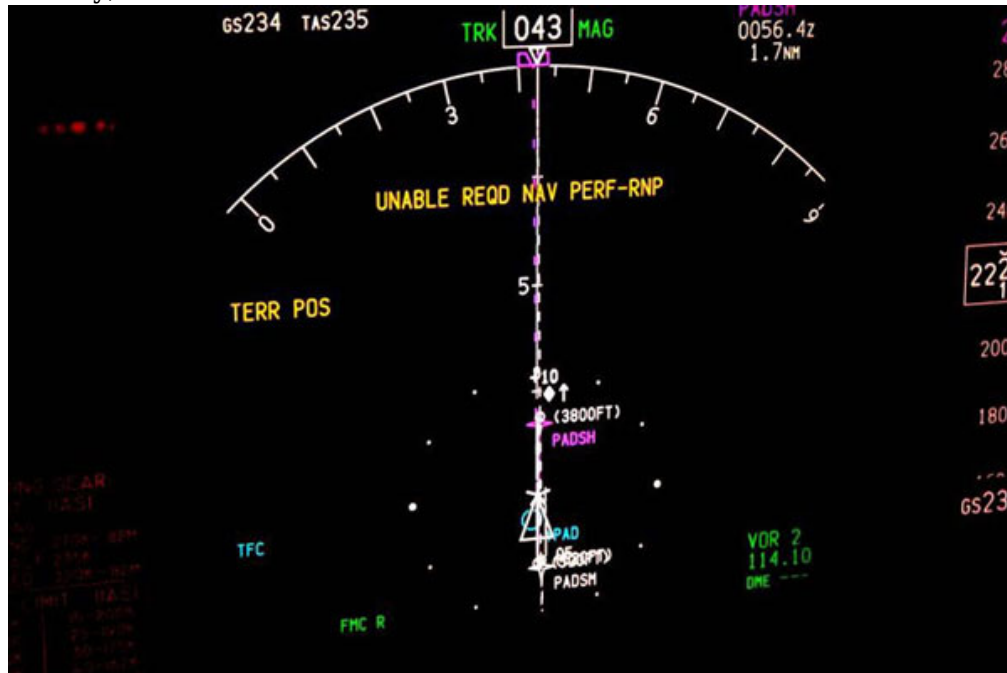
On 01FEB16, Eurocontrol set up a NM ACC3 alerting system – checking Flight Plans, and sending a message to the European Commission and the relevant EU Member State/s when a flight is identified as not having the correct ACC3 accreditation.

Australia is turning off its Nav aids - are you

ready?

Declan Selleck

11 May, 2016



On the 26th of May, Australia will switch off around 180 different VOR's, NDB's, and other ground-based Nav aids. Those that escape the cull - about 245 of them - will form the basis of their new "Backup Navigation Network", or BNN.

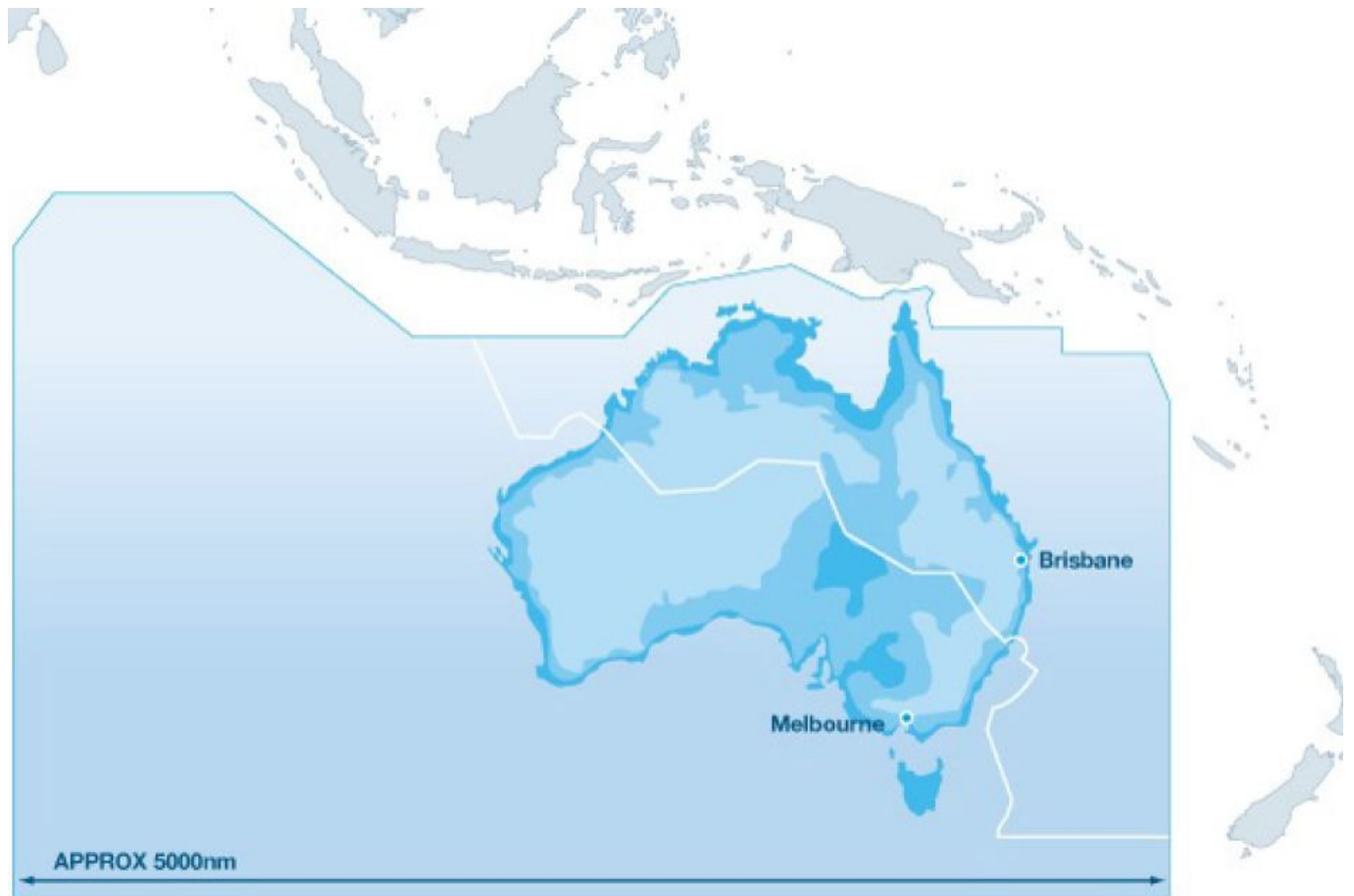
For International Operators, in short, Australia wants you to navigate with GNSS as your primary means of navigation. The new standards, from 26MAY, are:

- **Oceanic Routes:** RNP4 if able, otherwise RNP10
- **Continental Routes:** RNP2
- **SIDs and STARs:** RNP1
- **Non Precision approaches:** RNP APCH (ie. RNAV(GNSS))

CASA will issue **an exemption** if you have an existing RNAV1 or RNAV2 approval based on GNSS from your National Authority, but you must have either the above RNP capabilities, or the exemption, to operate in Australian Airspace from 26MAY.

Further reading:

- Australia AIC 10/16
- Australia AIC 11/16



Midweek Briefing 04MAY: New US CBP Airport, Iceland ATC Strike continues

Cynthia Claros
11 May, 2016

INTERNATIONAL BULLETIN

ISSUED BY FLIGHT SERVICE BUREAU

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New US CBP Airport 04MAY A new US Customs facility opened in KMT/ Marathon on 20APR, to facilitate increased traffic to Cuba. Read the article.

Iceland ATC Strike continues 04MAY Icelandic controllers are in a pay dispute with Isavia, leading to multiple strike actions at BIKF/Keflavik and BIRK/Reykjavik. Last week BIKF was closed overnight at short notice. Read the article.

EHAM/Amsterdam and other Dutch airports will observe a two minute silence on ATC frequencies today, 04MAY, from 1800-1803Z. ATC will arrange traffic flow so that no aircraft will land or taxi during this period, meaning likely delays, albeit for a short period.

SECU/Cuenca, Ecuador remains closed after an E190 slid off the main runway on 29APR, latest estimate is no reopening before 06MAY.

CZZZ/Canada Visa-exempt foreign nationals can enter and exit Canada by air without an Electronic Travel Authorization until 29SEP2016. After that date, these travelers will need to obtain online authorization to visit.

BIZZ/Iceland Multiple ATC Strike actions for BIRK and BIKF are ongoing, check NOTAMS and with handler for latest. **Read article.**

TFFR/Guadeloupe has ongoing main runway closures due to WIP, current shown are 04MAY 0200-1015Z, 17MAY 1000Z- 18MAY 1600Z. Only helicopters will be allowed to operate during these periods.

UIBB/Bratsk has a fuel shortage until 31MAY, non-scheduled movements are by PPR only.

NWWW/Tontouta has an ATC staff shortage and requires slots for arrival until 31MAY, Tel +687 352437. Work on 11/29 is also ongoing, check NOTAMS for any current outages, which will close the airport.

EGGX/Shanwick is trialling transferring westbound flights direct to a HF frequency rather than via an initial VHF frequency, using CPDLC. The default frequencies will be HF 5649 H24, 2872 0000-0900 and 1800-2400, and 8879 0900-2100.

PAZA/Anchorage has published new procedures Eff 28APR for User Preferred Routes within the PAZA FIR,

refer A0075/16.

SVZZ/Venezuela changed timezones on 01MAY to UTC-4. In addition, all public offices, including public ministries, will only operate on Mondays and Tuesdays until further notice.

TTZP/Piarco FIR is trialing ADS-C and CPDLC with ident TTZP until 31MAY. Flights entering the FIR east of 57W should log on 15 minutes prior to the boundary with TTZP.

UHSS/Yuzhno has advised that B777 aircraft are limited to 310T during the summer period.

UIAA/Chita is only available as alternate for one specific airline (Aurora) between 0930-2100Z. Outside these times ops normal.

WSZZ/Singapore has introduced a fingerprint clearance system to verify the thumbprints of arriving and departing travelers ages six and above at select immigration checkpoints. The system will be progressively implemented starting at the manned immigration counters of sea and land checkpoints, followed by air checkpoints until full implementation is completed in the months ahead. Travelers should be prepared for slightly longer immigration clearance times at manned checkpoints, especially during the initial implementation stage of the project.

YZZZ/Australia Border Force employees have been banned from taking industrial action at airports for three months; the threat of ongoing strike action caused much concern for operations in March.

RJTT/Haneda the airport authority has changed the number of slots available for general aviation aircraft. Effective 25APR, slots for GA during the daytime (0600-2259 local) will be increased to 16 total for arrival and departure (from eight in the past). Note that there are no slots restrictions for night time operations (2300-0559 local).

CYVR/Vancouver will have one of its main runways 08R/26L closed nightly between the hours of 05-13Z 08MAY-02SEPT for construction. During the day (13-05Z) the runway will have the ILS on 08R/26L out of service, along with no approach lighting on runway 26L.

SLZZ/Bolivia Certain medications prescribed for personal use are treated as narcotics in Bolivia, with severe penalties for import or export without a valid prescription from a doctor; make sure you carry a letter from a doctor describing the medical condition and any prescribed drugs and that they are in their original containers and clearly labelled.

EBBR/Brussels has partially reopened the departure hall, which has remained closed since 22MAR. 110 Check-in counters will be open in the airport departure hall along with an additional 36 counters that are housed in temporary buildings. The EBBR airport authority expects this will bring the airport up to 80% of capacity.

EZZZ/Europe Bulgaria, Turkey and Romania will begin a project to interface their ATC systems so they can handle a significant build-up of airspace traffic in the Black Sea area. New routes are expected by mid 2016.

LEZZ/Spain The Spanish F1 Grand Prix is being held from 13MAY-15MAY and will bring heavier than normal traffic to LEBL/Barcelona and LEGE/Girona.

HEZZ/Egypt Individual travellers will in the future require a visa before entering Egypt. The exact date of the implementation of this rule is not yet determined. The visa must be applied for from the Egyptian embassy and the consulate generals before departure.

GVZZ/Cape Verde Aviation officials issued a statement announcing that national airports are open and operational. The statement was released following reports that flight operations had been suspended at the country's airports.

ORZZ/Iraq Iran canceled all flights to Baghdad following a breach of the International Area by protesters on 30APR. The demonstrations have caused problems for pilgrimage flights to Baghdad, and those flights will operate instead to ORNI/Najaf.

VIDP/Delhi has opened a new ATC tower (which is the country's tallest at 60 metres). VIDP will also be starting construction on a 4th runway this year and is expected to be completed by 2018 which will increase the airport arrival rate to 105 landings an hour, and will mitigate the common airborne holding.

View the full International Bulletin for 04MAY 2016

Iceland ATC Strike continues

Cynthia Claros
11 May, 2016



Icelandic Air Traffic Controllers are currently in a pay dispute with airport operator Isavia and service organisation SA-Business Iceland. Controllers are at work, but a ban on all overtime has been in place since 06APR. Last week, two controllers were taken ill and, because of the work-to-rule, no cover could be found.

The result was a shutdown of BIKF/Keflavík International Airport, a regular tech stop and alternate for the NAT, between 9pm and 7am.

Similar closures are currently NOTAMed for BIKF and BIRK in the coming days, notifying multiple further ATC strike actions.

New US CBP facility at Marathon

Cynthia Claros

11 May, 2016



A new US CBP facility facility opened in KMTB/Marathon on 20APR, to facilitate increased traffic to Cuba. The Customs facility is located mid-field at the terminal, on Twy A.

Operating hours are Wednesday – Sunday, 9:00 AM – 5:30 PM with after hours callouts available.

Phone: 305-289-2029

Fax: 305-289-2059

This is a fee based facility (\$50 for all pistons and turbine fee based on aircraft size) which offers a non-towered airport and much less traffic than the larger airports such as TMB and MIA.

From AIN online:

For the first time in approximately three decades, U.S. Customs and Immigration service is now available at the Florida Keys Marathon International Airport, with last week's inauguration of a new 4,200-sq-ft permanent Customs and Border Patrol facility located in the former commercial terminal. In anticipation of the achievement, the airport recently added "International" to its name.

Located midfield on Taxiway Alpha, U.S. Customs is regularly available from 9 a.m. to 5:30 p.m. Wednesday through Sunday, with after-hours callout service available with 24 hours' notice. Cost for the \$1.6 million facility was split equally between the Florida Department of Transportation and the Monroe County Airport Authority, said Thomas Henderson, assistant county airports director and Marathon Airport manager.

According to the Marathon Jet Center, the only FBO that pumps jet-A at the airport, after Customs clearance, pilots can request fuel to be delivered to the aircraft in the Customs area, depending on traffic, a feature that would waive facility fees for turbine-powered aircraft. The general aviation, non-towered airport is open 24/7 and features a 5,000-foot runway.

Most expensive ATC in Europe?

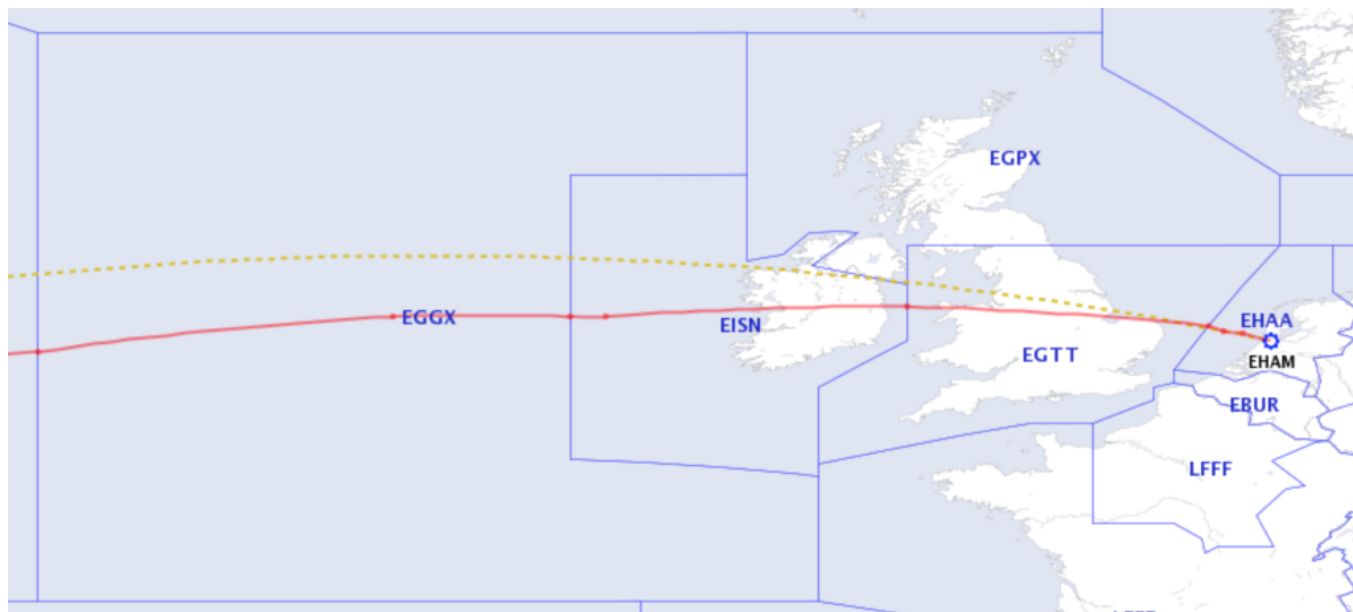
Declan Selleck

11 May, 2016



Let's say you have a flight heading to Europe tomorrow, and you're routing it eastbound via: Shanwick (EGGX), Shannon (EISN), and London (EGTT) FIR's into Amsterdam.

Do you have any idea what it costs to talk to each controller, on an hourly basis?



The answer might surprise you. We'll assume you're crossing in a B737, weighing around 80 tons (or 175,000 lbs). For an hour's worth of ATC on the Ocean, it's **50 bucks**.

Next up, you'll talk to Shannon – and this will cost you about **\$300** an hour in your B737. As soon as you enter London's airspace – same service – that rate goes up to about **\$1000** an hour.

For the above example, you'll have paid these charges, in USD:

- **Shanwick(Oceanic):** \$50
- **Shannon(Ireland):** \$280
- **London(UK):** \$780

Worth knowing, right? Eurocontrol publishes a list of Unit Rates each month – the current one for May 2016 is below. So who is the most expensive? Simple answer: **Switzerland**. Followed closely by the UK, Germany and Italy. As you can see, there are huge variations.

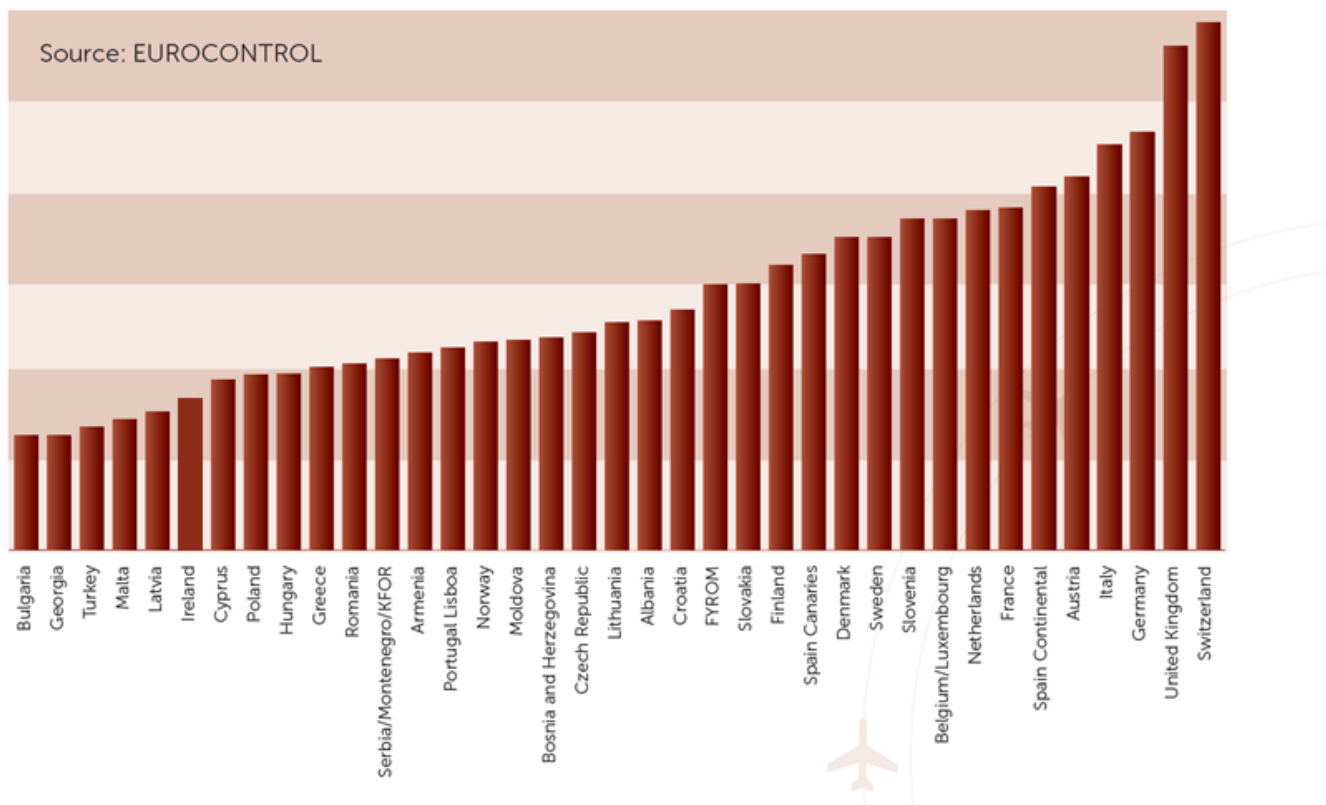
The **Unit charge** in each is what you will pay in a **50 ton aircraft** (the Boeing 717 is bang on this weight), for 50nm of that airspace. So, enter the Swiss FIR for 50 miles in a B717, and you'll get a bill for €104. If you operate a larger aircraft, then a weight factor is applied, for example, multiply everything by 1.25 for a B737. (If you want the maths, here's the formula).

These are the May Unit Rates, just published, in order of expense, in Euro, which is \$1.15 right now.

ICAO	Airspace	Unit Rate
LS	Switzerland	€ 104.14
EG	United Kingdom	€ 92.12
ED	Germany	€ 82.68
LI	Italy	€ 80.17
LO	Austria	€ 73.72
LE	Spain Continent.	€ 71.78
LF	France	€ 67.63
EH	Netherlands	€ 67.09
EB	Belg.-Luxembourg	€ 65.50
LJ	Slovenia	€ 65.47
ES	Sweden	€ 63.02
EK	Denmark	€ 61.91
LU	Moldova	€ 59.37
GC	Spain Canarias	€ 58.45
EF	Finland	€ 56.32
LZ	Slovak Republic	€ 52.63
LW	FYROM	€ 52.36
LD	Croatia	€ 48.02
LA	Albania	€ 45.61
EY	Lithuania	€ 44.99
LK	Czech Republic	€ 43.06
LQ	Bosnia Herzeg.	€ 41.88
EN	Norway	€ 41.05
LP	Portugal Lisboa	€ 39.99
UD	Armenia	€ 38.65
LY	Serb.-Montenegro-KFOR	€ 37.06
LR	Romania	€ 36.48
LG	Greece	€ 36.11

LH	Hungary	€ 35.04
EP	Poland	€ 33.84
LC	Cyprus	€ 33.66
EI	Ireland	€ 29.76
EV	Latvia	€ 27.40
LM	Malta	€ 25.88
LT	Turkey	€ 25.69
UG	Georgia	€ 23.80
LB	Bulgaria	€ 22.68
AZ	Portugal S M	€ 10.89

EUROCONTROL En route unit rates € - 2016



Further reading:

Eurocontrol Guide to Route Charges

Ferry Flight from Seattle: Boeing 707

Mark Zee

11 May, 2016



We've sent out a lot of updates in the last 12 months about changes on the North Atlantic; if we go back 45 years you'll see that navigating was a little different – but for all that has changed, much is still the same.

This Flight Log is from the Delivery Flight (KSEA/Seattle-EGLL/London Heathrow) of Boeing 707 G-APFN, which took place on 18NOV1960.

Home via the Pole

Our take-off weight was 130,500kg, of which 72,000kg represented full tanks. We needed, with all allowances, 66,500kg of fuel for the 4,210 n.m. flight. Estimated flight time 8hr 42min on a minimum-time track, with average +24kt wind component, calculated by BOAC's New York dispatching office and received in Seattle by telephone. The 72,000kg of fuel would give us 11 hr 48 min endurance.

Track: Carmi, Churchill, Frobisher, 64°N at 50°W, 56°N at 10°W, Bush Mills, London. Flight level 330 to 90°W, 370 to 20°W, then 410. Take-off about 1700hr local, 0100Z (GMT). Take-off clearance: "Climb on runway heading to 3,000ft: left turn to heading 340° to intercept 030° radial of Seattle VOR: climb NE-bound until 15,000ft via direct Carmi: maintain flight level 330. Transition height, 24,500ft because of the mountains. Gets dark during climb, red rotating beacons reflecting off pods; flight deck almost Christmas-like in red and white lights on grey panels: everyone head-down working hard, except pilots peering into night sky. We press on to cruising height, mostly using DR plot and scattered NDBs with occasional VOR. Talking to all sorts of stations on VHF and HF, asking for position reports to be passed to BOAC at Montreal.

Distinctly Canadian accents on radio. Change heading from 025° to 060°. Meet jarring turbulence: navigator's plot shows sharp wind-change: radar shows thunderstorms: temperature drops rapidly; lights dimmed and captain stares into black night, hand on autopilot heading control. This is a jet stream—and rough! Decide to climb straight to 370 to get clear, and notify control. Using both VHF and HF almost constantly. Pass Tippe Lake at 0202Z estimating Churchill at 0300Z. Dull, furtive veils of northern lights snaking above us—

ADFs tuned to Frobisher NDB, no astro. Outside air temperature—52°C. Hear SAS over-the-Pole flight asking to climb from 280 to 310 at 0449Z, position 70 °W, 66 °N. KLM flight is there too. Northern lights seem to have gone. We talk to "Leeway" on VHF.

0445Z: Note from co-pilot Lee, "Leeway is defence radar at Frobisher: we saw their lights on the ground:

have now returned to compass steering: will get radar fix on No 2 VHF at about 0455Z: now reporting to Goose on No 1 HF." Our report, read from a form, gives estimate for 64°N, 67°W as 0509Z, the wind found, fuel state and consumption, speed, ETA for London and much besides. Goose asked to repeat to Gander and Montreal for BOAC, to Sondrestrom for ATC. Sondrestrom cannot understand, so Goose changes HF frequency to try again. "Leeway" fixes us by radar at 120 miles. SAS and two other BOAC aircraft talking on HF. Navigator plotting all the time; engineer fills in fuel tables every 5,000kg, about every 40min. Pressurizing on one turbocompressor and two direct engine bleeds. We call Prestwick on HF, apparently without reply.



0530Z: Northern lights sneak up again. ADF tuned to Kook Island NDB, mid-west of Greenland, and we see its lights below. Whoever lives there? No. 2 ADF getting Christiansund NDB, 320 miles away on southern tip of Greenland. At 37,000ft: TAS 475kt; two minutes up on ETA; winds northerly; engines at 88 per cent r.p.m.; radar tilted down 7° for mapping.

0542Z: Temperature — 55°C. Air has been smooth for hours. Captain and navigator still hard at it, co-pilots and engineer relieved. Passenger cabin a dark, empty tunnel—only nine seats fitted. Dead of night, northern lights stealing about.

0625Z: At 35°W and 37,000ft. Hope to climb at 30°W. Three min ahead of plan. No VHF contacts. Iceland cannot hear our HF, so relaying via Sondrestrom. Expect to contact weather ship on VHF at 0645 and get fix. Nearest to Iceland at 0700. Many other aircraft south of us calling Gander. Receive HF weather broadcast from Shannon giving shallow fog for most British airfields; also Canadian maritime weather broadcast from Gander. Frobisher has a 9,000ft runway good for a diversion. Our point of no return relates to Gander. But now we have the feel of the other side and are heading south-east for Britain.



0800Z: Wake with a start from sleep to see a hard yellow, copper and pale green dawn rising over us. Still making 480kt true on 132°. ATC has held us down to 37,000ft; passing 10°W and estimating Bush Mills at 0830Z. Windscreen frames now thickly coated with frost. The sun begins to shine dazzlingly straight in at the windscreen, and shades are down, lights turned low. Outside temperature — 48 °C. Captain still in seat. Navigator makes complete table of airways check-point ETAs for Red 1 and Amber 1 via **Belfast, Isle of Man, Wallasey, Lichfield, Daventry, Beacon Hill and Watford to LAP's runway 28R.**

Descent to begin at 0852 and to last 24 min at mean TAS of 364kt, using 800kg fuel. Engineers plan pressurization management between bleeds and turbos when throttled back on descent. ETA London 0916Z with 19,000kg of fuel remaining at 1,000ft. The tip of Ireland is painting well on radar at 60 miles. Sun is blinding. A leaden sea visible between dollops of cloud thrown almost up to our level in polar maritime cold air. IAS 250kt; M0.82; r.p.m. 88 per cent; o.a.t. — 48 °C; cabin height 6,000ft. Navigator hands time plot to co-pilot and relaxes slightly. HF weather reports in French. Cillard RAF radar (in Scotland?) has us. English voices, clipped and calm in welcoming efficiency.

0820Z: Ireland in sight. Centre and reserve tanks now dry, remaining fuel distributed in wings.

0837Z: Cillard loses us and we switch to Scottish Airways control. Estimate Isle of Man at 0843. Prepare-for-descent checks read out. Landing weight will be 77,500kg—very light—VREF 126kt, target threshold speed 135kt, maximum threshold speed 149kt.

0842Z : Pass Isle of Man, in sight below, together with coasts of Wales, Ireland, England and Scotland, and request descent clearance for 0851. At 0846 cleared down to flight level 210 and call Preston. Throttle outers to 68 per cent and inners to 87 per cent r.p.m. Descending at M.O.68 at 700ft./min. Wallasey at 0853.

0900Z: The Pennines lava-like in valley fog and snowy tops. Joddrell Bank telescope like a deployed parachute far below. Atlantic charts and manuals being cleared away. Pass Lichfield, estimating Daventry at 0907, tuning beacons, change to London control. 250kt i.a.s., jolted in rough air. Daventry at 0907, estimating Beacon Hill at 0913. Cleared to flight level 190. Watford on No 1 ADF, Dunsfold on No 2 ADF. Find Beacon Hill by Flying Dunsfold range leg to a bearing from Watford. Under London radar surveillance from Daventry. Cleared to flight level 080. Don't confuse Beacon Hill with Woburn, check with ADF. 1,000ft/min now at 150. Wheels rumble down for airbrake effect, slow to 200kt at 2,500ft/min; trying to make Watford at 8,000ft. Over Watford at 11,000ft radar takes us straight on to a southerly lead-in for ILS,

asks our rate of descent.

Runway visibility 1,500yd. Still on autopilot, in cloud. Flap coming down. See Greenwich through a hole in cloud, then Crystal Palace. A helicopter is reported leaving Battersea. Approach checks read. Autopilot-coupled glide-path and localizer armed. Radar vectors us on to centre-line. Speed coming back to 150kt at 3,200ft. QNH set on co-pilot's altimeter, QFE on captain's. Height 2,100ft, glidepath coupler engaged at 152kt, going down at 900ft/min into dull mist. Melted frost dripping fast from window frames. Captain's hand poised on control wheel. Windscreen wipers working hard. Lead-in lights now dimly in view, but no trace of runway. BEA engineering base comes into sight to our left, co-pilot positively identifies runway and tells captain.

We surge in past the lights, the captain cuts the autopilot and holds off. When I think we are still 100ft up, the main wheels touch smoothly, the nose comes down, spoilers are popped out, reverse thrust pulled. Further end of runway still out of sight. The captain takes the nosewheel tiller and starts braking while the co-pilot holds the column forward and calls the decreasing speeds down to 60kt. We turn off with some runway to spare, switch to airfield control frequency. Shutting down checks begin.

We are home. Chock-to-chock time 9hr 15min for 4,210 n.m.: we took off at about 1700 hr Seattle time and it is now 0130 by that reckoning— time for bed. But here in London it is 0900hr or so and a new day is just beginning. This is the way to travel if you don't weaken ..

This is an excerpt from an article originally published by Mark Lambert in Flight International in 1960.

Midweek Briefing 27APR: Rome Airport Closures, Strike: Germany, France

Cynthia Claros
11 May, 2016

INTERNATIONAL BULLETIN	ISSUED BY FLIGHT SERVICE BUREAU
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Rome Airport Closures 27APR Private flights (any non-commercial traffic) will not be allowed to operate

to or from LIRA or LIRF on 30APR and 01MAY, as the result of a Papal Restriction. Refer to Italian NOTAMs for details.

Strike: Germany, France 27APR Widespread, mostly without notice, strike action across Europe today affecting operations for the coming few days. France and Germany worst affected (EDDF, EDDM, EDDK in particular); Lufthansa has cancelled all domestic flights. Monitor Eurocontrol NOP for latest.

KLAX/Los Angeles Due to a runway and taxiway construction project at LAX, arrivals (mostly general aviation) from the north and west can expect to be routed to arrive on the south side of the airport via the LEENA FIVE STAR between 09MAY and 06AUG.

KTPA/Tampa Due to an unforeseen required runway repair, TPA has closed 01R/19L and 10/28 until 09MAY. The airport is operating under single runway ops so you can expect ATC delays until the runway is fixed.

KDEN/Denver has opened a new train line that connects the airport to downtown. Named the 'A Line', it will take passengers to downtown in 37 minutes and cost \$9 USD each way.

MKJS/Montego Bay increased traffic and possible delays into and out of MJB 27APR-29APR due to the Airports Council International Convention.

SEZZ/Ecuador As of 23APR, 654 people have been killed, 113 people have been rescued alive, 58 people remain missing, and more than 25,000 remain displaced as a result of the 7.8 magnitude earthquake that struck off the coast of Ecuador on 16APR.

LZBB/Bratislava will be introducing free route airspace in their FIR above FL245 on 28APR. All ATS routes have been withdrawn above this flight level.

MTPP/Port au Prince, Haiti On 24APR, approximately 2,000 protesters marched through Port-au-Prince in opposition of the postponement of the runoff elections. While the protest did not turn violent, it severely disrupted traffic in Port-au-Prince, as protesters set up roadblocks of burning tires in the streets

EZZZ/Europe The European Commission has officially offered citizens of Ukraine visa-free travel across Europe.

HEZZ/Egypt UK FCO Advice: there is a heightened threat of terrorist attacks targeting celebrations of Orthodox Easter (24APR-01MAY).

RJFT/Kumamoto has reopened after closing for several days following the Japanese earthquakes. At this point, the airport can only handle arrivals, due to damage the terminal building sustained, which has effected the airports ability to perform security checks and handle luggage.

RZZZ/Japan The Immigration Bureau will be closed 29APR through 05MAY for Golden Week holiday observance. Foreign nationals should expect processing delays for immigration applications filed before or after this period.

ZZZZ/Worldwide On 25APR the World Health Organization (WHO) warned of a likely increase in the upcoming months in worldwide cases of Zika. Experts believe Europe will be next to experience an increase of Zika virus cases due to the approaching summer.

ZSHC/Xiaoshan The airport authority has requested that all private flights arrive with their specific tow-bar on board to mitigate any departure delays. The expectation is in effect until SEP16.

ZKZZ/North Korea At 0930Z on 23APR the North Korean military launched a submarine-based ballistic missile off the Sea of Japan. The missile flew for approximately 16nm before falling into the sea.

VIAR/Amritsar is currently in the process of upgrading the CAT II ILS to a CAT IIIB ILS which will allow CAT III capable aircraft to land in visibility down to 50 meters. Currently the only other city in India that has a CAT III ILS is Delhi.

View the full International Bulletin for 27APR2016

Earthquakes: Japan & Ecuador, South America - New Timezone: Midweek Briefing 20APR

Cynthia Claros
11 May, 2016

**INTERNATIONAL
BULLETIN**

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Earthquakes: Japan, Ecuador 20APR Two large earthquakes struck Japan and Ecuador in the past week, with a longer term impact on International Flight Ops. RJFT/Kumamoto and SEMT/Manta are both closed UFN. Read full article.

South America - New Timezone 20APR In an unusual move, a new time zone will take effect in South America from the 1st of May. As part of a measure to battle an energy crisis in Venezuela, the entire country will change timezone from UTC -4h30 to UTC-5, to ensure more daylight in the evening when energy consumption peaks. **Read full article.**

EGLL/London Heathrow An A320 was struck by a drone on approach to LHR on 17APR. This is the first incident of its kind, though there have been many close calls to date.

FMZZ/Madagascar Cyclone Fanatata is currently north of Madagascar, the equivalent of a Category 5 Hurricane. It is expected to miss the island nation and the main airport of FMMI but the close proximity of the cyclone to the island may cause flight disruptions.

BIKF/Keflavik beginning 01MAY, BIKF will be imposing a new Terminal Navigation Charge. This charge is to be applied to all flights arriving at BIKF. The airport authority has issued an Air Navigation Chargedocument to assist in determining the impact of the new fee.

LTZZ/Turkey. We've been alerted to a change in Overflight Requirements – aircraft with M- and VP-registrations, and any other countries without a bilateral agreement, require an Overflight Permit. See the new Turkey Lowdown for full information.

TIZZ/U.S. Virgin Islands authorities, assisted by the FBI, began investigating reports of a plot to attack airports on the Virgin Islands, notably the Terrance B. Lettsome International Airport (Beef Island Airport). The U.S. Coast Guard first received information of a terrorist attack plot circulating on social media. The threat focused on Terrance B. Lettsome International Airport but also mentioned airports on St. Croix, St. Thomas and St. John as possible targets. No information is available on what level of credibility authorities attach to these threats.

EBBR/Brussels A recent report from the Brussels Airport CEO has stated that EBBR will be 100% operational by the beginning of June.

EDNY/Friedrichshafen will be hosting the AERO 2016 exhibition from 20APR to 23APR. There is an expected increase in IFR traffic to the airport during the event. Please refer to NOTAM C0933/16 for further details.

LCCC/Nicosia FIR due to a Russian Navy Exercise and rocket test firings in the Mediterranean Sea, there are NOTAM'd route closures for W/UW17 from BALMA-NIKAS, R/UR78 and M/UM978 daily from 0500-1500Z on 21APR and 22APR. The NOTAMS covering the closure are A0308/16 and A0310/16.

SBZZ/Brazil The Canadian government has issued a helpful health notice for crew/passengers planning to travel to Brazil for the upcoming Olympic Games, which has advice on how to contend with the Zika virus.

MGZZ/Guatemala Volcano Santa Maria has had some recent high level ash dispersed into the atmosphere up to FL250. The Washington VAAC provides advisories and forecasts.

ZBAA/Beijing is not available for Non-Emergency diversions or planned as an alternate due to gate/stand shortage daily from 13-23Z daily until 28OCT16.

VIZZ/India The Government of India has introduced the e-TOURIST VISA (eTV) scheme for UK nationals travelling to India. All guests travelling under this scheme must carry a printed copy of the approved eTV for verification at the check-in counter prior to boarding.

WSZZ/Singapore the CAAS has issued 2 AIP supplements outlining the upcoming military exercise Bersama Shield 16. AIP SUP 40-16 covers Kuala Lumpur and Singapore FIR airspace restrictions and AIP SUP 41-16 covers additional Singapore FIR airspace restrictions. The exercise will be running from 21APR to 28APR.

HSZZ/South Sudan The UK FCO has issued a travel warning against travel to South Sudan and in particular to Juba due to the return of the First Vice President as "tensions and disturbances" may increase across the country in the coming weeks.

FNZZ/Angola The CDC has upgraded the yellow fever in Luanda Province to an Alert Level 2. The

government of Angola requires all travellers older than 9 months to show proof of yellow fever vaccination on arrival. In addition, CDC recommends that all travellers aged 9 months or older be vaccinated against yellow fever.

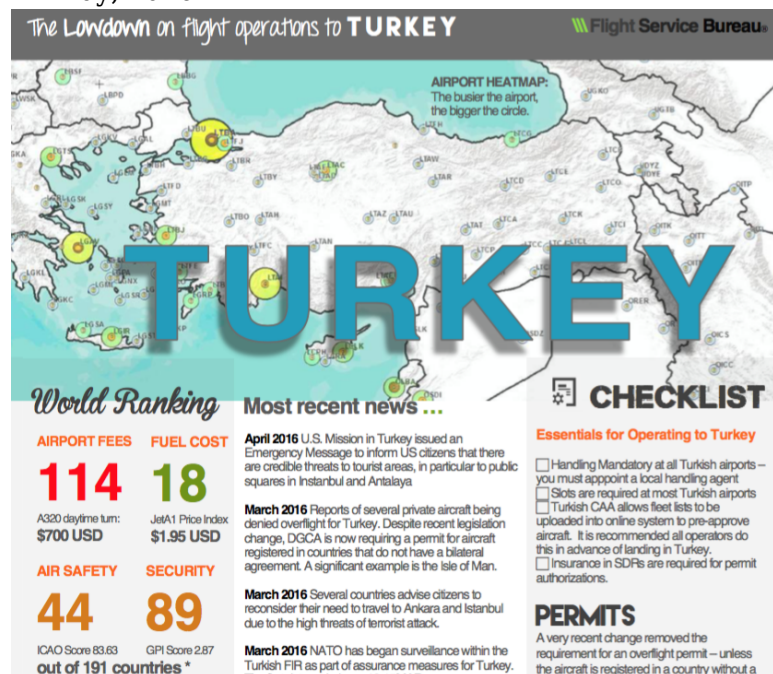
DNMM/Lagos a new protocol issued by customs and immigration officials is causing congestion in the arrival hall. There are 2 forms being given to passengers only once they enter the arrival processing area. Please ask your handler if these forms can be provided ahead of time.

View the full International Bulletin for 20APR2016

Country Lowdown: Turkey

Mark Zee

11 May, 2016



The latest in our series of Country Lowdowns is: **Turkey**. There have been some changes of late, including an exclusion for aircraft registered in countries without a bilateral agreement with Turkey, from the new overflight permit exemption. Hmmm. That's a mouthful.

In easier language – if you're flying an M-reg or a VP-reg aircraft, you'll probably need an overflight permit.

We publish these Country Lowdowns on a regular basis, and they are sent directly (free) to members of **OPSGROUP**.

If you'd really like the one for Turkey, just email team@opsgroup.co. Or – join the group at opsgroup.co and you'll get them all as they are published.



Flight Service Bureau and The Airline Cooperative

New time zone for South America

Declan Selleck
11 May, 2016



In an unusual move, a new time zone will take effect in South America from the 1st of May. As part of a measure to battle an energy crisis in Venezuela, the president also gave the public sector every Friday off until at least June 6th - to save electricity.

In addition, the entire country will change timezone from UTC -4h30 to UTC-4 from 01MAY, to ensure more daylight in the evening when energy consumption peaks.

At SVMI/Simon Bolivar, Primary radar has been off the air since 04APR - and remains out of service until the end of May - it's unclear if this is electricity related.

If operating to Venezuela after 01MAY, local time will therefore be **4 hours behind UTC**.

Earthquake effects: Japan, Ecuador

Declan Selleck

11 May, 2016



Two large earthquakes struck Japan and Ecuador in the past week, with a longer term impact on International Flight Ops.

Japan

At 0124LT Saturday a 7.3 quake hit Japan, centred on Kyushu, the large island at the southern end of the country.

Airports: **RJFT/Kumamoto** is closed UFN to all traffic. **RJFF/Fukuoka** operating normally, **RJFU/Nagasaki** operating normally. In addition, in Kyushu: – Many roads, bridges damaged, Railways out of service, Region should be avoided.

Ecuador

On the same day, a 7.4 earthquake centred towards the north-west of Ecuador.

SEMT/Manta, a regular tech stop for traffic between the US and South America, is closed to normal operations after the Terminal and Control Tower suffered significant damage.



US, Canada may lose EU visa rights, More Free Route Airspace for Northern Europe

Cynthia Claros
11 May, 2016

INTERNATIONAL BULLETIN	ISSUED BY FLIGHT SERVICE BUREAU
	SITA HNLFSXH AKLFSXH AFTN KMCOXAAL
	EMAIL INTL.DESK@FSBUREAU.ORG

expect. time	destination	airline
13.25	RHODES	easyjet
13.35	MUNICH	easyjet
13.40	GENEVE	easyjet
13.45	PARIS	easyjet
13.55	ROME	Alitalia
14.00	NAPLES	Alitalia
14.05	MADRID	easyjet
14.15	TUNIS	easyjet
14.25	ZURICH	easyjet



US and Canada may lose EU visa rights 13APR The European Commission published warning on 12APR that visa-free travel by US and Canadian citizens to Europe is at risk, due to the lack of a full reciprocal arrangement for EU citizens. **Read the full article.**

More Free Route Airspace for Northern Europe 13APR Sweden, Finland, Denmark, Estonia and Latvia will be increasing free route airspace from 23JUN16. This allows operators to utilize User Preferred Routes above FL285. Details of the implementation can be found through the AIC A3/2016 from Sweden.

RKSS/Gimpo is set to open South Korea's first purpose-built FBO next month. It includes a passenger terminal with customs and a large hangar that can accommodate up to eight large jets. The FBO is a partnership between Korea Airport Crop and Avjet Asia.

EBBR/Brussels Controversial ATC Strike occurred without notice yesterday 12APR, restricting traffic at EBBR and in Belgian Airspace. Eurocontrol advises 4 of 6 sectors operational Wednesday 13APR, at this stage no significant further effect likely.

KZZZ/USA New security measures in the U.S. are being enacted in response to the Brussels Airport Bombings. The Senate voted to increase the vetting of airport workers, expand the number of TSA viper teams that sweep through airports unannounced to stop and search suspicious people, and double the number of TSA's bomb-sniffing dogs. Also, local law enforcement may also conduct random checks of cars and taxis heading towards the airport.

KZZZ/USA the FAA has provided its NextGEN update for 2016. It highlights all the completed items along with the expected achievements for the year. You can find all the info through the NextGEN website.

EZZZ/Europe as of 05APR Eurocontrol as been publishing Target Time information together with Calculated Take-off time (CTOT) in the Slot Allocation and Slot Revisions Messages (SAM and SRM). The purpose of the initiative is to provide flight crew with operational awareness of their flight's planned time at the congestion point in the air, rather than solely providing the corresponding delayed departure time (CTOT) to implement ATFM measures.

EGZZ/United Kingdom A large scale military exercise named 'Joint Warrior 16-1' has been taking place since 09APR16 and will last until 22APR06. EGPX and EGTT FIR/UIRs are affected. However, low to medium impact on airline operations is expected.

LFZZ/France beginning 03MAY16 France will be implementing CPDLC services within LFFF, LFEE, LFRR, LFMM and LFBB FIR's. The full details of the IOC can be found in AIC 10/16.

EGGX/Shanwick OCA implemented a trail of 5 minute separation minimum between aircraft which are following the same track, irrespective of whether they are East or Westbound. Full details can be found through AIC Y 022/2016.

LOWW/Vienna every weekend until 24MAY16 LOWW will be operating under single runway ops beginning 2100 on the Friday until 1600 on the Sunday. The closures are weather dependent and the closure will be recalled if the forecast calls for the use of runway 11/29. In any single runway scenario use at Vienna delays are a guarantee.

OEZZ/Saudi Arabia The U.S. State department updated a travel warning to Saudi Arabia on 11APR16. It outlines the risk to travellers due to an increased risk with the threat of terrorism.

SKZZ/Colombia The U.S. State department has updated the travel warning to Colombia. They have actually improved the travel warning as the security in the country has improved significantly in recent years. Foreigners should still exercise caution though.

LTCC/Diyarbakir is now able to handle international flights due to a new terminal building that has opened.

OLBA/Beirut two airport employees were detained on suspicion of terrorist activity involvement on 08APR16. Traces of explosives and a handgun were found on the two individuals.

DIAP/Cote D'Ivoire has reduced the passenger departure tax by 50% and have also removed the solidarity contribution tax levied on airline tickets.

GABS/Mali began renovations last month (MAR16) to increase the airports capacity to handle 1.5 million passengers which is up from the 800,000 annual passenger traffic. The project is expected to be completed by the end of the year.

View the full International Bulletin for 13APR2016

US and Canada may lose EU visa right

Mark Zee

11 May, 2016

expect. time	destination	compagnia airline	vol flight n°	imbarco gate	osservazioni remarks
13.25	RHODES	 OA	2471	D05	
13.35	MUNICH	 EN	124	B10	NOTIZIE APPENA POSSIBILI INFORMATION WILL FOLLOW
13.40	GENEVE	 AA	122	B11	
13.45	PARIS	 SK	44119	B66	
13.55	ROME	 AZ	13278	A50	VOLO SPECIALE / CHARTER SPECIAL FLIGHT / CHARTER
14.00	NAPLES	 AZ	46711	A14	
14.05	MADRID	 IB	2561	C33	ATTESA PASSEGGERI WAITING PASSENGERS
14.15	TUNIS	 TU	4442	D26	
14.25	ZURICH	 LX	8910	B47	

The European Commission published warning on 12APR that visa-free travel by US and Canadian citizens to Europe is at risk, due to the lack of a full reciprocal arrangement for EU citizens.

The core of the issue is this: Although US and Canadian passport holders can travel to Europe for stays of up to 90 days without requiring a visa, citizens of some EU countries are not eligible for the same privilege in return. Specifically, citizens of Bulgaria, Croatia, Cyprus, Poland and Romania require a visa for the US, and citizens of Bulgaria and Romania require one for Canada.

The deadline for US and Canada to include those citizens in their own visa-waiver programs expired yesterday, on 12APR2016. Consequently, the EU is obliged, under their own policy document, to take steps to remove the visa-free travel privilege for US and Canadian Citizens.

The United Kingdom and Ireland do not take part in the development of the common visa policy and would not be bound by a visa waiver suspension.

No change has yet occurred, and any decision to limit travel would have a lead time (most likely 90 days). For further background see the full EU press release.

MHTG 'Interesting Approaches' to end, Greeks or Italians? ATC strikes:

Cynthia Claros
11 May, 2016

INTERNATIONAL BULLETIN	ISSUED BY FLIGHT SERVICE BUREAU
	SITA HNLFSXH AKLFSXH AFTN KMCOXAAL EMAIL INTL.DESK@FSBUREAU.ORG



MHTG 'Interesting Approaches' to end 06APR MHTG/Tegucigalpa Dangerous approaches at MHTG will be consigned to history, as a new airport was finally confirmed at the weekend by the Honduran government. **Read the full article.**

Greeks or Italians? ATC strikes this week 06APR There will be an ATC strike this week in Europe, maybe by Greece, maybe by Italy, maybe by both. These strikes are often cancelled shortly before starting, but at this pre-planning stage, it seems likely to go ahead. **Read the full article.**

EBBR/Brussels has now reopened but operations are still very restricted. The airport is not expected to be fully operational until June or July by current estimates. The airport authority has instituted new security measures that include a requirement for passengers to arrive 3 hours prior to their departure time. The terminal is still closed to busses and trains. Slots must still be requested from the Brussels Airport Authority if you intend to operate in or out of EBBR.

ZKPY/Pyongyang FIR Many reports that North Korea is jamming GPS signals, also reported by South Korea RKRR NOTAM A0450/16. Signals have been reported as unreliable or lost when operating in or near to North Korean airspace. Exercise caution if you rely on GPS in those areas. **Read our DPRK Overflight Risk article** from a few weeks ago.

LIZZ/Italy Eurocontrol has confirmed an Italian ATC strike is set for April 9th. NOTAMS A2062/16A2 and A2063/16A2 have been issued covering the proposed strike.

MHTG/Tegucigalpa Dangerous approaches at MHTG will be consigned to history, as a new airport was finally confirmed at the weekend by the Honduran government. Full article [here](#).

LFXX/France an Operational Trial of CPDLC Services in French Airspace of Reims (LFEE), Paris (LFFF) and Marseille (LFMM) ACC will be in effect from 05APR to 11APR.

EZZZ/Europe The U.S. State Department along with numerous other countries have issued a Europe wide travel warning in response to the attack in Brussels. While extra vigilance should be exercised it is also a very generic response to a threat that has yet to be fully understood from a commercial aviation perspective. If you would like to be kept up to date on specific travel alerts from the U.S. State Department you can sign up through their STEP program.

EHAM/Amsterdam reports of near misses with drones have recently been reported by crews. The location of the near misses was on the approach path but no specific runway was mentioned.

KEWR/Newark The FAA will be increasing the number of available slots to EWR, available at the end of October. The change is in response to the improved efficiency of the airport and the ability to increase the ATC arrival rate.

FAA/United States has issued Advisory Circular 00-30C. It describes the various types of CAT (Clear Air Turbulence) along with avoidance techniques and possible future forecast systems for helping Dispatchers and Pilots in the planning stages.

KZZZ/USA Check your passport! Effective 01APR16, if you're travelling to the United States under the Visa Waiver Program, you will also need to have a valid **e-Passport** along with your ESTA.

CZVR/Vancouver ACC will begin to use ADS-C on 18APR In their Oceanic sectors, for both alerting service (SAR) and improved ATC separation purposes.

UDDD/Yerevan FIR Due to Air Defence activity ATC route segments with Yerevan FIR Crossing FIR boundary points MATAL, ELSIV, PEMAN and VETEN between Yerevan FIR and Baku FIR are not available.

UBBA/Baku FIR Entry/Exit points VETEN, PEMAN, ELSIV, MATAL are closed.
Baku FIR Entry/Exit points BARAD, DISKA closed from GND to FL305.
NOTAMS A0030/16 and A0032/16 have been issued as well.

UHSS/Yuzhno will be closed daily 10APR-14MAY between the hours of 12-21Z.

OMZZ/United Arab Emirates will begin charging a \$9.50 USD Passenger Tax effective 30JUN, to be imposed on all travellers over the age of 2 through all airports including those only transiting the UAE. A driving factor in this new charge appears to be low oil prices affecting the Gulf States.

UZZZ/Russia has stated that aviation authorities are intensifying its ramp inspections of all aircraft (especially foreign aircraft, we guess) in the wake of the Rostov accident.

FZZZ/Nigeria The Nigerian National Petroleum Corporation has stated that steps are currently being taken to end the countries fuel shortage, but may take upwards of 2 months. We suggest to check with local handlers for the availability aviation fuel supply until the issue is resolved.

VNKT/Kathmandu We have received some reports that VNKT ATC weather reports are inaccurate, especially regarding visibility. Any feedback please let us know.

VIAR/Amritsar has suspended all night operations for 1 year due to the planned reconstruction of the airports runways.

View the full International Bulletin for 06APR2016

No more MHTG

Mark Zee

11 May, 2016



You've seen the video; which gives some background to why MHTG/Tegucigalpa is sometimes referred to as "the most dangerous airport in the world". News over the weekend from Honduras confirmed a new \$163 million airport is being developed. There have been **multiple incidents** at the airport over the years, mostly due to the surrounding terrain and approach.

The new airport, with a longer, 2440m/8005 ft runway, will be about 25nm from the capital near the Palmerola military air base, and the president said "The new airport is meant as an alternative "so that passengers can land in an airport that does not put their lives at risk,".

If you're operating to Honduras, Landing permits are required for all private non-revenue and charter (non-scheduled commercial) operations to Honduras, along with notification to "CENAMER," a joint air traffic control service covering Belize, Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua.

OPSGROUP - this is new.

Declan Selleck

11 May, 2016



When we reached 25,000 readers a few months ago, it was obvious that **we were doing something right** – our little weekly ops update started out five years ago with maybe 50 people on the list.

We branched out with Plotting Charts, Ops Notices, Special Reports, and a bunch of other stuff – doing our best to keep you and others in International Flight Ops as up to date as possible.

Now, we've started **OPSGROUP**. By creating a group, we can focus on delivering all the things we make, directly to the people that want them most.

If you already enjoy our weekly bulletin, then we're excited to tell you that there's a whole lot more now available in one place. You should start by reading the **feedback from others**.



Flight Service Bureau® and The Airline Cooperative®

Pavlof Eruption wreaking havoc, Brussels Airport remains closed: Midweek Briefing

30MAR

Cynthia Claros
11 May, 2016

INTERNATIONAL BULLETIN	ISSUED BY FLIGHT SERVICE BUREAU
	SITA HNLFSXH AKLFSXH AFTN KMCOXAAL EMAIL INTL.DESK@FSBUREAU.ORG



Pavlof Eruption wreaking havoc 30MAR16 Volcano Pavlof erupted on Sunday and is currently on aviation colour code 'RED'. It has caused havoc for North Pacific, Alaskan and Northern Canadian operations. The latest predictions have the ash upwards of FL400 and extending over Northern Alaska and Canada. You can find the latest information through the Alaskan VAAC.

Brussels Airport remains closed 30MAR16 EBBR is still closed with the possibility of opening later this week. Currently all commercial flights are still prohibited from operating into EBBR. Only ferry, emergency, SAR, State, general aviation and cargo flights are authorized with a slot that can be coordinated through the Belgium Slot Coordination website.

EZZZ/Europe The U.S. State Department along with numerous other countries have issued a Europe wide travel warning in response to the attack in Brussels. While extra vigilance should be exercised it is also a very generic response to a threat that has yet to fully understood from a commercial aviation perspective. If you would like to be kept up to date on specific travel alerts from the U.S. State Department you can sign up through their STEP program.

FAA/United States there have been 583 reported hazards from Aug 22/2015-Jan 31/2015 between aircraft and Drones. None of these incidents have caused any collisions or damage but extra vigilance must be exercised until the FAA can regulate the use of these drones in the terminal areas.

RPHI/Manila has issued an advisory for aircraft operating in the vicinity of the Bulusan Volcano and the Kanlaon Volcano due to an alert level 1 of activity. Flights operating in the vicinity are advised to avoid flying close to the summit.

LFXX/France a general strike has been declared for March 31st. Possible impact to airline operations. Please make sure you check with Eurocontrol or FIR NOTAMs for further restrictions.

FXXX/Nigeria The NNPC or Nigerian National Petroleum Corporation has stated that steps are currently being taken to end the countries fuel shortage but may take upwards up 2 months. Please check with local handlers for the availability aviation fuel supply until the issue is resolved.

LXXX/Turkey has issued a nationwide terror alert and the Israeli Counter-Terrorism Bureau has advised for all of it's citizens to leave the country. Extra vigilance should be exercised if operating to and from Turkey for the foreseeable future.

UXXX/Russia has stated that aviation authorities are intensifying it's inspections of aircraft from Russian and International budget carriers in wake of the Rostov-on-Don accident.

DGAC/Ghana FIR issued NOTAM A0128/16 due to VHF freq 130.9 being not reliable for all Oceanic traffic entering ACCRA FIR from the South East due to maintenance. All traffic must contact ACCRA on HF 8903KHZ or logon to ADS-C/CPDC "DGAC" until positive VHF contact is established.

VNKT/Katmandu There have been a few reports that the Tower at VNKT has been reporting erroneous weather to pilots. One example of such a report was "Tower informed us that there was some 3 km of visibility this morning but it to be less than 1.5 km while Kathmandu was engulfed by haze". If you encounter any issues while operating into VNKT please send us a note to bulletins@fsbureau.org.

VIAR/Amritsar has suspended all night operations for 1 year due to the planned reconstruction of the airports runways.

VTBD/Bangkok Officials approved an expansion that will allow for more aircraft, passengers and vehicle parking. The plan also includes provisions to cut landing fees during off-peak hours at VTBD and VTBS in an effort to increase usage of both airports. The project includes plans to extend the runway, add office buildings, and create additional parking zones for aircraft. The expansion is expected to be completed in 2025.

Angola The Ministry of Health in Angola has reported an ongoing outbreak of yellow fever in Luanda Province. The government of Angola requires all travelers older than 9 months to show proof of yellow fever vaccination on arrival. The CDC has a 'Watch Level 1, Practice Usual Precautions' advisory in place.

FAA/United States has issued Advisory Circular 00-30C. It describes the various types of CAT (Clear Air Turbulence) along with avoidance techniques and possible future forecast systems for helping Dispatchers and Pilots in the planning stages for proactive flight planning.

View the full International Bulletin for 30MAR2016

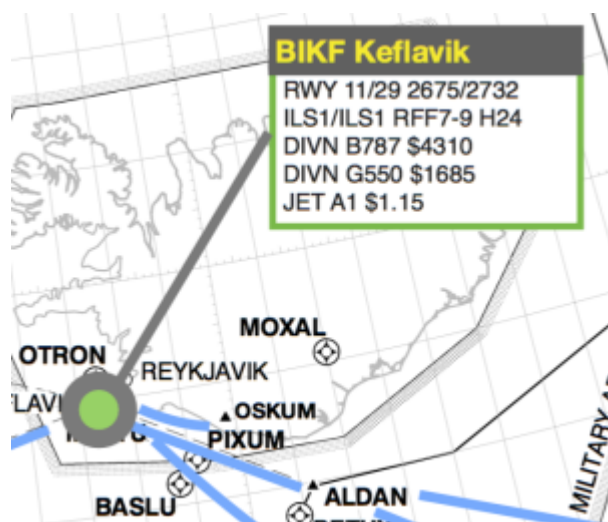
Cheapest Jet fuel on the Atlantic? \$1.15 a gallon

Declan Selleck
11 May, 2016



The cost of a gallon of Jet A1 has been rather unstable lately. Over the last couple of years, we've produced several versions of our **North Atlantic Plotting Chart**, and as we've done so, the price of Jet A1 has dropped each time across the Atlantic seaboard.

So, where is cheapest? **Answer: Keflavik.** \$1.15 for a gallon of Jet A1 at the best available commercial airline rate. Now, that was six weeks back or so, when we did the research for the chart, and prices have been rising since (tracking the Oil price pretty well).



Next best on the list is Shannon, Ireland – \$1.37 USD/USG, thanks to the Shannon Free Zone, which strips out most of the taxes that the EU levies as standard.

Next question, then: most expensive? **Narsarsuaq, at \$5.65 for a gallon.** Why so much more? Primary reason: getting the fuel to BGBW is an awful lot harder than getting it to BIKF. The rest is down to the difference in government tax policy.

Fuel price is of course not the only tech stop or diversion consideration on the North Atlantic, but given that security, safety, and service quality is pretty much equal across the entire NAT region, it's an important factor – along with the cost of handling.

If you look at the snapshot above, you can see that your G550 will cost around \$1685 including Airport Fees; taking a B787 to KEF will run around \$4300 all in.

The **North Atlantic Plotting Chart** has all this information for all the common North Atlantic ETOPS/Diversion Fields – namely: CYYT/St Johns, CYQX/Gander, CYJT/Stephenville, CYYR/Goose Bay, CYFB/Iqaluit, BGSF/Sondrestrom, BGBW/Narsarauq, BIKF/Keflavik, EGPF/Glasgow Intl, EGAA/Belfast, EINN/Shannon, and LPLA/Lajes.

[Download NAT Plotting Chart](#)

Take a close look at this chart. Notice anything strange?

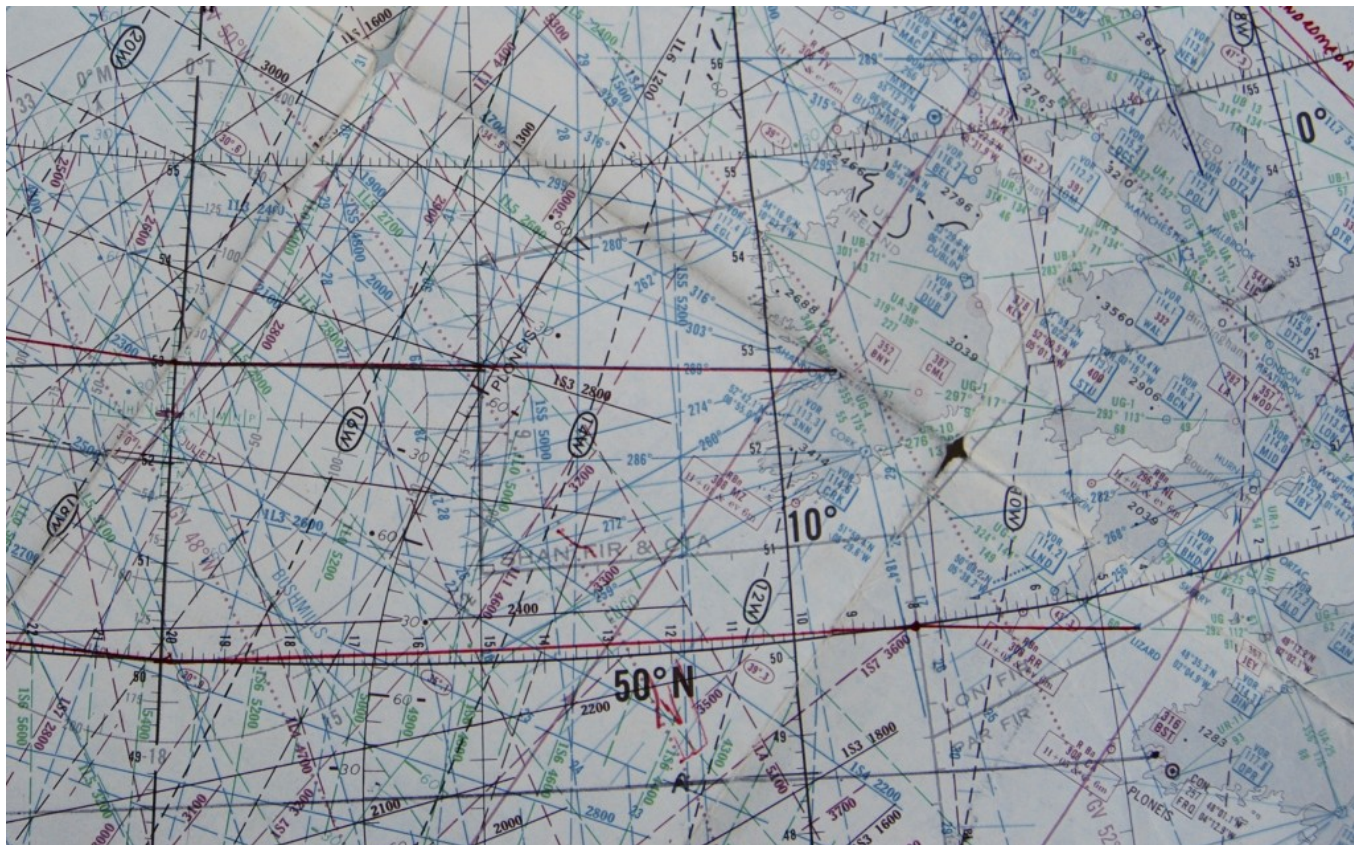
Mark Zee

11 May, 2016



On second thoughts – let’s ask another question, that might be easier: Notice anything familiar? I’ll venture a guess: probably not. This is a North Atlantic Plotting Chart from the 70’s (hauled out of the Flight Service Bureau archives), and it’s the area just west of the Shannon FIR, at 20W. **Busy place, back in 1973.**

So what are we looking at, exactly? Most of the coloured lines are LORAN lines (dashed ones indicating the station is only receivable at night); but there is also a range ring for the BUSHMILLS (MWN) Consol Navigation Station on the North coast of Ireland (long since gone).



Most interesting is the waypoint marked JULIETT. It's 52°30N and 20W: Officially known as an Ocean Station Vessel (OSV), this was a **Weather Ship** operated by the UK and the Netherlands and permanently in position. It was used back in those days to take regular radiosonde readings, collect weather reports, act as a radio beacon (NDB on 370Khz), and provide Search and Rescue (SAR) cover.

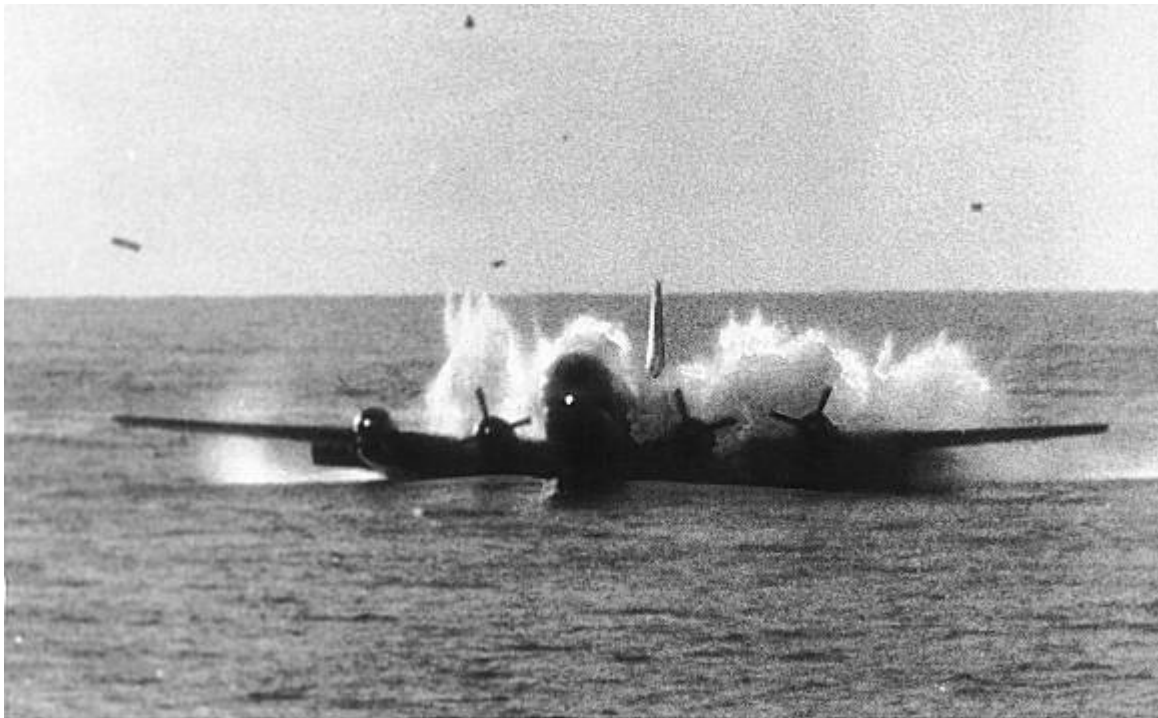
There were 10 such ships on the Atlantic; A through E operated by the US coast guard; and I through M by the Europeans.



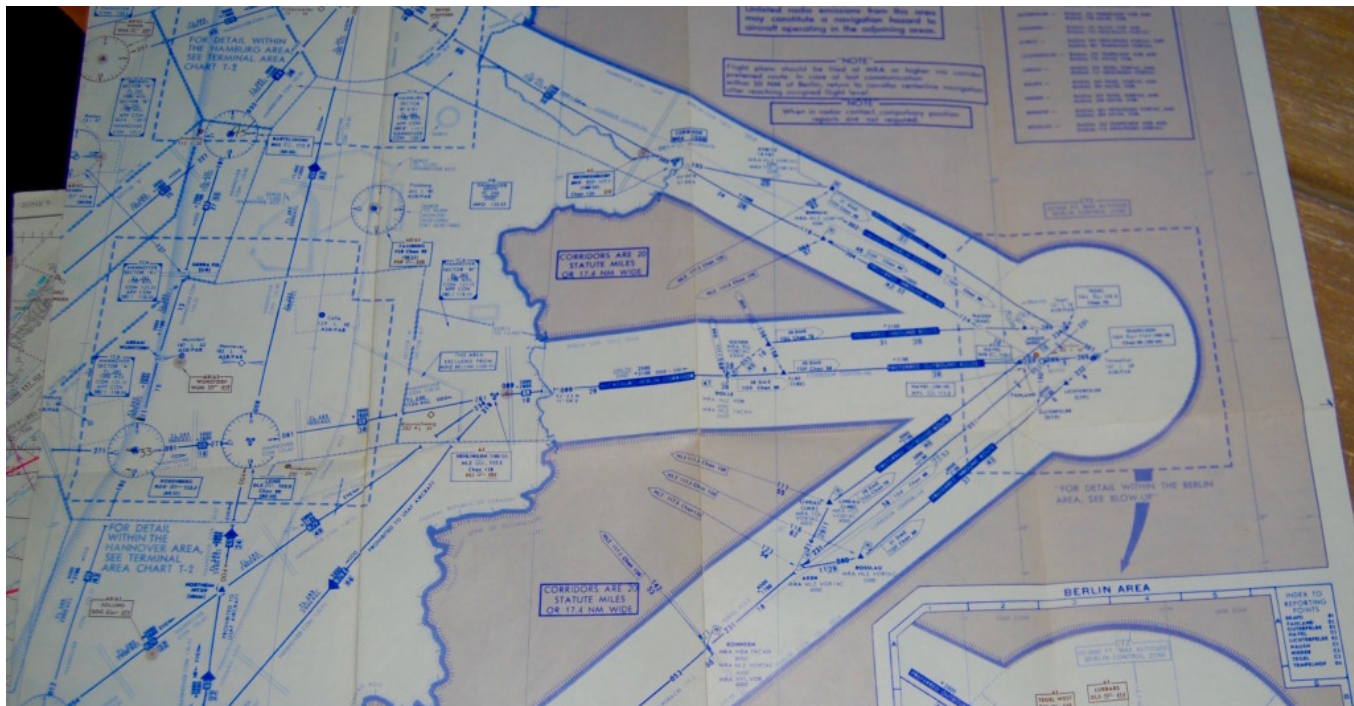
Howard Cox, in "Ocean Weather Ships", writes: "Light aircraft were reasonably frequent 'visitors' on their delivery flights to the UK or Europe. Without exception there was always something not working -VHF but no HF or vice versa, no heating, no DF and so it went on. I remember one occasion when we were on Juliet when we were requested by Shanwick Oceanic Control to keep the ships navigation beacon on continuously and to keep a continuous radar watch on from a certain time. An aircraft being ferried to Europe via the UK had taken off from Gander and lost his radio compass before he had even reached the US Coast Guard cutter manning Ocean Station Charlie."

Cox continues, "They had brought him over the top of them using their radar, 'set' the radar beam in the direction of Juliet and guided the pilot as far as they could along the beam till out of range. We did likewise when he reached our part of the ocean, setting the beam in the direction of Shannon Airport in Ireland and guiding him along that until he passed out of range. In the meantime Shannon did the same when he got in range of them. He was lucky, he made it, crossing the Atlantic courtesy of three radars!"

The value of the SAR function of these ships was proven in the Pacific 1956, when about 1200 miles west of San Francisco Pan Am flight 6 ditched after a double engine failure with no fatalities; all 44 people on board survived thanks to Ocean Station November, which is where this photo was taken from.



Our next look at old charts will be this one from the Cold War, showing a very distinctive three-corridor system of entry and exit to

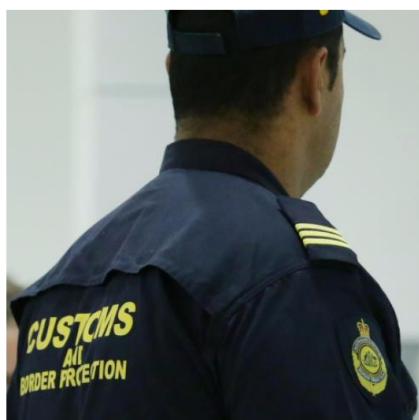


Overflight Risk - North Korea, Australian strike: Midweek Briefing 23MAR

Declan Selleck
11 May, 2016

**INTERNATIONAL
BULLETIN**

ISSUED BY FLIGHT SERVICE BUREAU
SITA HNLFSXH AKLFSXH AFTN KMCOXAAL
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Australian Airport Strikes cancelled 23MAR Australia had been set up for a week of Airport Chaos over the Easter Break, with Border Protection and other government services planning a huge list of strikes – but the events in Belgium yesterday prompted an announcement this morning that the strike is cancelled. **Read the full article.**

North Korea overflight getting riskier 23MAR Over the last fortnight, North Korea has been launching short and medium range missiles like they are going out of style. Nobody in Pyongyang has any intention of aiming them at civil airliners, but the objective is not where the risk lies. **Read the full article.**

EBBR/Brussels Remains closed until 0000Z on 24MAR, at earliest. If operating to Europe, expect increased security, checks, and delays not just in Belgium but across the continent. ANSP's and AO's are invited to join an ad-hoc teleconference organized by Eurocontrol NMOC at 1100Z today. For the log-in procedure, please refer to the Crisis portlet in the protected NOP.

HKNW/Nairobi Four British nationals were arrested on 21MAR for taking pictures of aircraft at Wilson Airport (HKNW/WIL). The detainees have been ordered to pay 2,000 USD or face up to a year in prison.

VHHH/Hong Kong is taking a close look at Airlines and AO's that depart outside their allocated slot times. Airport capacity is critical and the Airport Company has said they will restrict operators seen to be abusing slot times – the official guideline is departing more than 15 minutes outside your slot window is frowned upon. Have a read of AIC 02/2016 – plenty of background information there if you operate regularly.

KZZZ/USA Thanks to Lee I. for this update – The FAA has now activated 11 of the planned 56 Airports offering CPDLC-DCL. Next up are KTEB/Teterboro and KLAS/Las Vegas on 28MAR.

MDZZ/Dominican Republic Business visitors and tourists who extend their stays beyond 30 days are now subject to an exit fee.

ZKPY/Pyongyang On 21MAR, at approximately 1519 local time (0619 UTC), North Korea launched several missiles into the Sea of Japan. South Korean media reported that the missiles landed approximately 125 mi/200 km from the North Korean city of Hamhung. U.S. military officials stated that they were monitoring the situation with a heightened defense posture. The North Korean military conducted the launch in response to ongoing military exercises between U.S. and South Korean troops.

Zika Virus The Centre for Disease Control (CDC) has listed the ZIKA virus as an “Alert Level 2”. You can find more details on which countries are specifically affected through the CDC website. The CDC has recently added Cuba to the list of affected countries.

URRR/Rostov Airport operational again following crash of B738 on 19MAR.

ZSSS/Shanghai will host ABACE2016 on 12-14APR at Shanghai Hawker Pacific Business Aviation Centre (BAC). Shanghai has two airports of entry (AOEs) – ZSSS and Pudong (ZSPD). Both require airport slots (and have general aviation (GA) departure curfews in place 0700-0900 local). While ZSPD operates 24 hours, ZSSS has night curfews in effect 0001-0559 local. It's only possible to obtain one slot, at either airport, during peak hours of 0900-2200 local. Also, by regulation, aircraft aren't permitted to reposition from ZSPD to ZSSS, and vice versa. ZSSS has a fixed-base operator (FBO), while ZSPD doesn't. Parking is limited to a maximum of three days at ZSSS but is generally unrestricted at ZSPD. Drive time between the two airports ranges from 45 to 60 minutes, depending on traffic (Thanks Sheng Young for this info).

SZZZ/Ecuador The Sangay volcano, located between the provinces of Chimborazo and Morona Santiago in the Andean and Amazon regions has shown increased activity as of 05MAR, with small explosions and tremors. Some ash flow has been observed towards the south. Please check the VAAC for further details.

GVNP/Cape Verde on 12MAR, 6 members of a TAAG Angola Airlines crew were targeted in an attempted armed robbery in Praia, Cape Verde. Reports indicate that assailants opened fire on the bus that was transporting the crew from GVNP/RAI to a hotel in Prainha. The bus driver was able to elude the attackers, and there were no injuries.

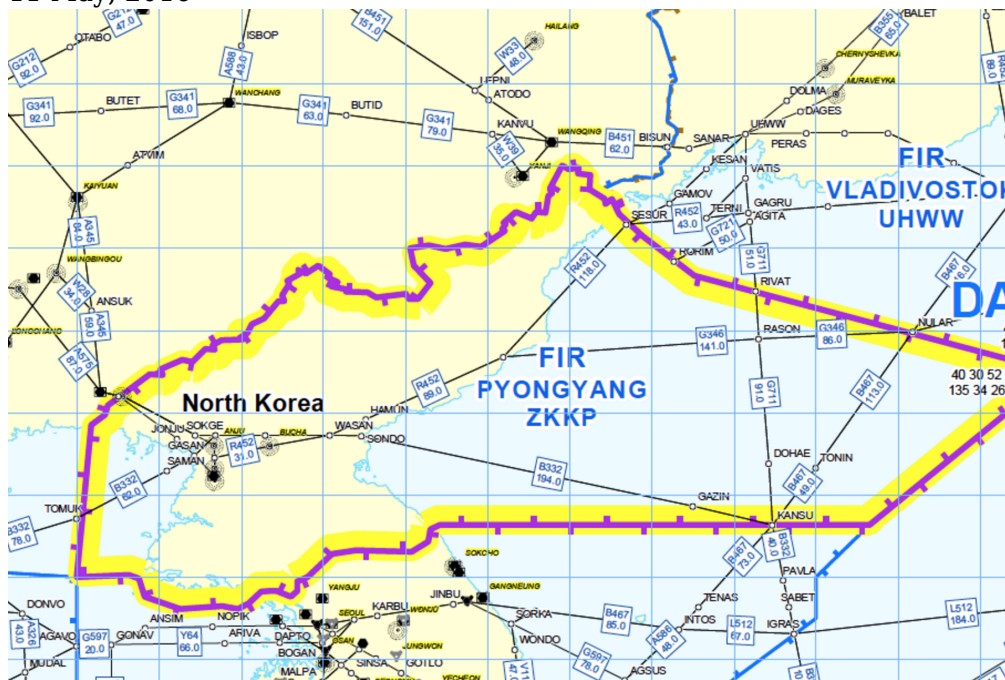
PLCH/Christmas Island has no JetA1 until 17APR. Elsewhere in the Pacific, PKM/Majuro has no fuel 21-25MAR, and PTPN/Pohnpei is out of supply until 28MAR.

SVMI/Caracas On 19MAR, assailants on a motorcycle shot a man who had recently arrived on a flight from Germany – while resisting a robbery attempt as he was walking along an outside corridor near a terminal at Caracas’ Simon Bolivar International Airport (SVMI/CCS).

View the full International Bulletin for 23MAR2016

North Korea overflight getting riskier

Mark Zee
11 May, 2016



Update: FSB removed North Korea warnings on May 14, 2018

The annual posturing between the **DPRK (North Korea)**, and the US/South Korea, follows a fairly regular pattern each year. The cycle involves escalating threats (by both sides), a cooling off process, a long period of nothing, and then a resumption of threats. History tells us that there is nothing to fear, because this is always the way it works on this peninsula, but then a slightly less micro view also tells us that we don't always make the correct risk assessment.

Prior to MH17 (B777 shootdown, Ukraine), our view of missiles in the commercial aviation community was a little casual. Post-incident, the rule of 'overflights are safe' as a standing principle was removed, and suddenly a whole lot more interest was applied to what was going on underneath the airways, even if we were up at FL350.

In specific terms, **over the last fortnight**, North Korea has been launching short and medium range missiles like they are going out of style. Nobody in Pyongyang has any intention of aiming them at civil airliners, but the objective is not where the risk lies. Late last year when Russia fired 30+ missiles into Syria, at least 5 of them went off course (including way above where they should have flown).

This wayward tracking is the greater part of our concern, for all flights within the Pyongyang FIR (ZKKP). Most international overflights are using the North-South airways over water to the east of the landmass, and it's worth considering that the missiles launched in the last week have been directed out over the sea in this direction (not coincidentally in the direction of Japan, who isn't on the DPRK Christmas card list either).

US Operators are in any case restricted by **SFAR79**, but everyone else should be keeping a close eye on their North Korean overflight plans. (If this hasn't put you off, **you can read the full North Korea overflight permit requirements**).



Australian Airport Strike cancelled

Mark Zee
11 May, 2016



Announced this morning, Wednesday 23MAR: Australia had been set up for a week of Airport Chaos over the Easter Break, with Border Protection and other government services planning a huge list of strikes – but the events in Belgium yesterday prompted a cancellation of the strike.

Some airport staff have already been engaged in stop work action at airports in Cairns, Townsville, Perth, Darwin and Adelaide as part of the two-year battle over pay and conditions.

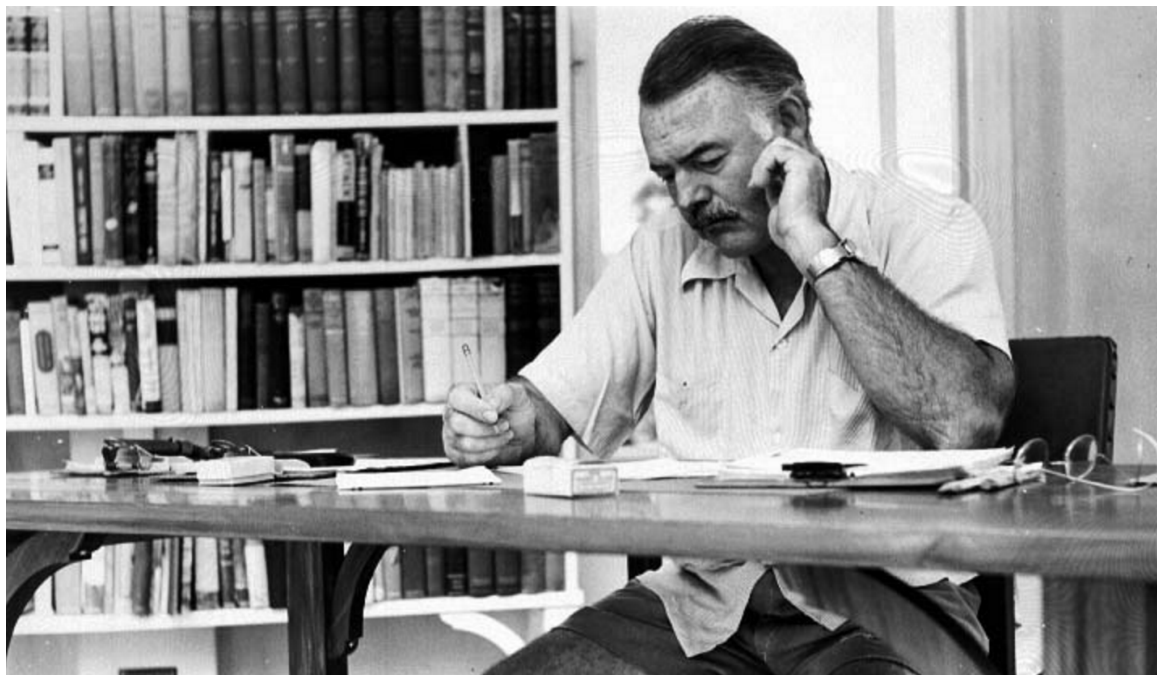
Bigger disruptions were anticipated tomorrow when staff at major international airports in Sydney, Melbourne and Brisbane were going to mount a 24-hour strike starting at midnight.

Earlier today Prime Minister Malcolm Turnbull urged the Community and Public Sector Union to reconsider, following the attacks in Brussels. The union has now confirmed it has instructed staff not to strike, and attend work as normal.

According to a statement, National Secretary Nadine Flood said the decision was made after the Prime Minister's comments. Earlier Mr Turnbull told Channel 7 he had been assured that there would be adequate security at the airports, but he pressured the union to retract its plans.

Join our writing team!

Mark Zee
11 May, 2016



Your interest in **International Flight Ops** is likely as strong as ours, and much as we want to keep you informed and engaged on the most relevant changes and topics – it's sometimes hard! So, we thought we'd add a couple of guest writers to our blog.

Do you want to join in? It's pretty easy – you'll get a login and can create your own articles that will be published to our blog readers.

- You get a login to our blog site (25,000 readers)
- Write an article about an International Ops topic that you genuinely care about or are strongly interested in
- Add in the most relevant links and photos, and you're done!

Keen? Email us at bulletin@fsbureau.org