

File With

SECTION 131 FORM

Appeal No

ABP— 314485-22

Defer Re O/H

☐

Having considered the contents of the submission dated/received

from Cornac McKay I recommend that section 131 of the Planning and Development Act, 2000 be/not be invoked at this stage for the following reason(s):no new material issues

Section 131 not to be invoked at this stage.

☒

Section 131 to be invoked — allow 2/4 weeks for reply.

☐

Signed

Pat Be

EO

Date

21/12/2023

Signed

SEO/SAO

Date

M

Please prepare BP — Section 131 notice enclosing a copy of the attached submission.

To

Task No

Allow 2/3/4 weeks

BP

Signed

EO

Date

Signed

AA

Date



Planning Appeal Online Observation

Online Reference
NPA-OBS-002991

LDG-068912-23

Online Observation Details

Contact Name
Cormac McKay

Lodgement Date
14/12/2023 15:04:33

Case Number / Description
314485

Payment Details

Payment Method
Online Payment

Cardholder Name
cormac mckay

Payment Amount
€50.00

Processing Section

S.131 Consideration Required

☒ Yes — See attached 131 Form

☐ N/A — Invalid

Signed

Pat B.

EO

Date

21/12/2023

Fee Refund Requisition

Please Arrange a Refund of Fee of

€

Lodgement No

LDG—

Reason for Refund

Documents Returned to Observer

☐ Yes

☐ No

Request Emailed to Senior Executive Officer for Approval

☐ Yes

☐ No

Signed

EO

Date

Finance Section

Payment Reference

ch_3ONGSJb1CW0EN5FC1wCeSc9L

Checked Against Fee Income Online

EO/AA (Accounts Section)

Amount

€

Refund Date

Authorised By (1)

SEO (Finance)

Authorised By (2)

Chief Officer/Director of Corporate Affairs/SAO/Board Member

Date

Date

Cormac McKay

Aeravai

5 Oak Park Grove

Santry

D09 T103

0851489179

Observation

I would like to recommend that all ground movements of aircraft be electrified by means of mandatory technology adoption to significantly reduce Noise Pollution and Emissions from jets on the ground from the runway to the gate by means of WheelTug. www.wheeltug.com

WheelTug PDF

I would like to make an oral presentation to the board of the Noise mitigation and emissions reduction benefits and potential from adoption of this technology, If current and increase passenger numbers and aircraft movements are to be considered at Dublin Airport.

I would also like to observe that the rule for night time use of Reverse thrust is continuously being broken and camera recording of landings should be used to monitor and reprimand blatant disregard with fines implemented on both individual pilots and airlines. In fact with the adoption of the WheelTug technology jets could be shut down immediately upon landing.

I would also recommend that the Noise monitor be made fully live and not a 1 hour delay

<https://www.dublinairport.com/corporate/corporate-social-responsibility/noise/webtrak-flight-monitoring-system>

Reverse thrust is not permitted at night, unless required for safety reasons.

WheelTug Benefits for Airlines and Airports

- WheelTug Benefits
 - Reduce aircraft operating cost
 - Reduce airport ramp operating cost
 - Reduce total ground time for aircraft
 - Increase airline revenue
 - Enhance customer service values

WheelTug is a game-changing aviation technology that will: These advantages will significantly transform an airline's profitability

OPERATIONAL BENEFITS

- WheelTug Savings Cost & Time Savings Operational Benefits
 - Pushback (no tractor needed)
 - Fuel (during taxiing, engine start before take-off)
 - Engine Maintenance (lower run time)
 - Engine Efficiency (lower run time, reduced FOD damage)
 - Brake Wear (less wear in stop & go queues)

Everyone flies the same aircraft at the same speed ... Opportunity for making a difference is on the ground: Reducing ground time increases both aircraft utilization and schedule dependability

Non-Time Savings Operational Benefits

- Reducing terminal, taxiway, and runway time per aircraft could result in preferential slot access
- Engines off for taxi could open new slot opportunities or move up early morning departure at curfew airports
- Less reliance on GSEs at outstations
- Eliminate non-linear tractor impact on gear assemblies
- Changing gates no longer requires a tug
- Slot Availability
- Slot Creation
- Logistics
- Nose Landing Gear Wear
- Easier Gate Swaps

Representative narrowbody blast area Environment & Safety Operational Benefits

- Greatly reduces ground noise, improving the environment for both passengers & neighbors
- Work environment for ground personnel is quieter and safer
- Reduces emissions
- Engines off in the gate area for push out, taxiing, stop & go queue and after landing

CO2 Emission Reduction Operational Benefits

- Per flight fuel savings for a 5-minute queue (Assumes dual-engine @ 2.9 gal/minute)
- Daily fuel savings, one plane (4.5 turns)
- Daily fleet savings (100 planes)
- Annual fleet savings (360 days)
- Annual reduction in CO2 emissions (@ 9.6 kg CO2 /gal Jet A) 14.5 gal 65.3 gal 6,500 gal 2,350,000 gal ~ 22.6 million kg

TIME BENEFITS

WheelTug Savings

Wheelback The Wheelback is performed along the ramp markings for a standard pushback – just without using engines or needing a tug

Today, pushback takes 5+ minutes on average . But airlines must budget for potential delays. Current pushback times, minutes (grey)

Source for 6,723 pushbacks: Wheelback 1 2 3 4 5 6 7 8 9 10 11 12 13

WheelTug pushbacks (Wheelbacks) will be faster and more dependable, with fewer outliers. Get rid of this long tail 1 2 3 4 5 6 7 8 9 10 11 12 13

Average time from pushback to taxi forward is 5 minutes 35 seconds. In 2% of cases, this rises to 13 minutes. Airlines pad schedules to allow for these delays. This is lost time that WheelTug helps reclaim. WheelTug will reduce up to 30% of ground time. Every minute saved on pushback saves the average airline at least \$150.

Pilot Tug Driver Wingwalkers Ramp Supervis. Tower Control Pushback Tractor Towbar Communications Hardware Jet Blast Safety Margins Collision Safety Margins Pushback Clearance Pushback Communications Link Disconnection Pin Removal Ground Crew Clearance Engine Start Procedures Taxi Clearance Pilot Ramp Supervisor Tower Control Collision Safety Margins Reverse & Taxi Clearance Reverse Operation Streamlined Operations

Conventional Pushback

Because of tow tractor and jet blast safety issues, one aircraft pushing back and taxiing forward can block many other gates. One Plane Many Gates Frankfurt, A & B concourses LaGuardia, Terminal C

Reduced jet blast allows faster taxi -back clearances. WheelTug cuts safety clearance delays and increases aircraft movements. 1 2 3 4 5 6 7 8 9 10

Airport Movement Atlanta Hubs are congested – even on good days. A single pushback delay in any of these areas can result in delays for a dozen aircraft or more. Even a relatively normal pushback can significantly slow operations. Today: 2% of pushbacks will take more than 13 minutes, and the effects quickly cascade system-wide.

- Doors Closed
- Pushback Begins
- Pushback Ends
- Taxi Starts

0:00 4:00 8:30 10:00

Ground Crew & Tug Wing Walker Wing Walker Tower Ground Crew Tug 2. Forward Taxi Starts 1:30

- Doors Closed

0:00 Average Time Saved 8:30

Ground crew and tug positioning Tug hookup Comms link connection Get clearance from tower (often slowed by jet blast) Finish pax preparation (depending on market) Pushback Disconnect Tug and Comms Safety pin removal Ground crew departure Engine-start

checklist Engine Start Taxi Clearance (often slowed by jet blast) Get clearance from tower (easier with reduced jet blast) Conclude passenger preparation Taxi back with WheelTug and WT Vision camera system Taxi forward with WheelTug Wheelback Benefit vs. Today's Pushback Lower Cycle Times & More flights Flight Time: 135 mins. Down Time/Day: 480 mins WheelTug can customize this model to reflect specific operations. 201 190 33.43 35.35 0 50 100 150 200 250 Pushback Today WheelTug Cycle Time (Mins) Cycles/Wk 100 105.8 97 98 99 100 101 102 103 104 105 106 107 Pushback Today WheelTug Net Effective Aircraft An airline only has to decide how many destinations to add to its schedule! Savings in this scenario are 11.01 minutes/flight of scheduled time. Savings from two-door (Twist) handling included. WheelTug Enables More Flights WheelTug pushback times are not only shorter, they are also more dependable, requiring less schedule padding by airlines to meet on-time metrics. With these efficiencies, WheelTug can open up significant schedule gains for any airline. Depending on an airline's current fleet and schedule, WheelTug productivity gains may increase 10% or more. 5 5 45 38.03 15 10.97 0 10 20 30 40 50 60 70 Pushback Today WheelTug NON FLIGHT TIME Taxi In Gate Time Taxi Out Without WheelTug - Tug crews reassemble - Aircraft priority is determined - Some aircraft get tugs - Lucky? 10 minute wait - Others wait - and wait... With WheelTug + Faster recovery for all + Airports less constrained by limited ground crews + Cleared aircraft can leave immediately Faster Restarts After Interruptions Two-Door Operations San Francisco, late 1950s New York Idlewild (JFK), early 1960s Dmitri Kessel Two-Door Operations Turnaround Time (TAT) Reduced by 13 minutes* Total Ground Time (TGT) Reduced by 20-28 minutes (incl. TAT benefits) Arrival Passenger/Aircraft Handling Departure Tower Jetbridge Terminal Ramp Aircraft Tower Jetbridge Terminal Ramp Tower Jetbridge Terminal Ramp WheelTug will allow aircraft to operate in gate areas without using tugs or generating jet blast. With the WheelTug Twist™ maneuver aircraft will pivot on its main gear, parallel park, while eliminating potential damage from overwing jet bridge extension. This maneuver is performed without the aircraft ever moving in reverse. * Based on United two-door over-the-wing operations in Denver Straightforward Implementation Some airports, especially in Asia, can already handle two-door narrowbody passenger loading. Other locations have space to implement the Twist without undue delay or spending. Singapore Munich Osaka (KIX) WheelTug is working with stakeholders to ensure its maneuvers are adopted. In 2022 it performed a joint study with Adani at Mumbai airport that concluded that WheelTug will add 2-3 flights per gate per day (25-37%). Similar studies are ongoing at PRG, PAD and more are being prepared. Stakeholder acceptance WheelTug is part of an ACI and EUROCONTROL commissioned working group tasked with preparing a CONOPS for sustainable taxiing. WheelTug also joined the SESAR AEON research undertaking, on optimizing airport flow with multiple taxiing technologies BENEFITS SUMMARY WheelTug Savings Why is this important? } Demand continues to increase } Expansion is slow and expensive (LHR, LGA, MUC, ALY) } This requires maximization of throughput for all assets: terminals, runways and aircraft, ideally without increasing manpower } Airports that operate more efficiently will attract more traffic (both as a hub and as a destination) Airport Benefit Max Throughput WheelTug comes at no cost to airports, reduces traffic and ground clutter, and makes airports safer and quieter. - 20 40 60 80 100 120 140 160 180 HOURLY PASSENGERS/GATE - 1,000 2,000 3,000 4,000 5,000 6,000 7,000 HOURLY PASSENGERS/RUNWAY Comparison of airports with 40-50 million passenger movements (2017) Solving Airport Constraints Scheduled Throughput 2.11 3.66 5.36 3.41 0.00 1.00 2.00 3.00 4.00 5.00 6.00 Conventional Narrowbody WheelTug Narrowbody WheelTug Twist Narrowbody Conventional Widebody Passengers / Gate / Minute Relative Effective Throughput Turnaround Time Scheduled Wait & Pushback PAX PAX/Gate/Min vs. Widebody Conventional Narrowbody 55 16 150 2.11 -38% Lower WheelTug Narrowbody 40 1 150 3.66 7% Higher WheelTug Twist Narrowbody 27 1 150 5.36 57% Higher Conventional Widebody 70 13 300 3.41 --- Widebodies have range benefits, narrowbodies have lower investment/route and greater PAX flexibility Actual Throughput 2.83 3.85 5.77 3.00 0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 Conventional Narrowbody WheelTug Narrowbody

WheelTug Twist Narrowbody Conventional Widebody Passengers / Gate / Minute Passenger
Throughput Turnaround Time Scheduled Wait & Pushback PAX PAX/Gate/Min vs. Widebody
Conventional Narrowbody 45 8 150 2.83 -6% Lower WheelTug Narrowbody 38 1 150 3.85 28% Higher
WheelTug Twist Narrowbody 25 1 150 5.77 92% Higher Conventional Widebody 90 10 300 3.00 ---
Thank You! exec@wheeltug.com