

Western Michigan University ScholarWorks at WMU

Honors Theses Lee Honors College

12-12-2022

Regional Airline Pilot Profession Post Colgan 3407

Brett Maas Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/honors_theses



Part of the Aviation Commons

Recommended Citation

Maas, Brett, "Regional Airline Pilot Profession Post Colgan 3407" (2022). Honors Theses. 3610. https://scholarworks.wmich.edu/honors_theses/3610

This Honors Thesis-Open Access is brought to you for free and open access by the Lee Honors College at ScholarWorks at WMU. It has been accepted for inclusion in Honors Theses by an authorized administrator of ScholarWorks at WMU. For more information, please contact wmuscholarworks@wmich.edu.



Regional Airline Pilot Profession Post Colgan 3407

Brett Maas

Lee Honors College

Western Michigan University

12 December 2022

Table of Contents

Background of the Accident.	5
NTSB 830 Findings	8
Pilot Records Database	10
14 CFR Part 117 Rest Regulations.	11
1,500 Hour Rule	13
Regional Airline Pilot Shortage.	16
Pay	17
Regional Airline Pilot Career Progression.	20
Conclusion	21
References	22
Survey Questions and Results	Appendix A

Abstract

Colgan Air Flight 3407 was a devastating aircraft accident that resulted in the loss of 50 lives (Beresnevicius, 2019). Multiple factors played into the accident, such as pilot credentials, pilot experience, weather, and fatigue. As a result of the accident, the regional airline pilot profession was changed entirely. Changes that spurred because of the accident were both regulatory and compensatory in nature. Regulatory changes include the introduction of the Pilot Records Database (online database that stores pilot training histories), increased flight experience requirements to become a First Officer at an air carrier, and the introduction of proactive rest rules with the goal of reducing pilot fatigue and its resulting errors. Compensatory and quality of life changes include increased pay and enhanced progression to major airlines. This research paper will examine the long-term changes that occurred to the regional airline pilot profession as a direct reflection of the accident. I utilized online published resources that highlight all the aforementioned areas of focus. Moreover, I made use of survey results from regional airline pilots (both before the accident and after the accident) to determine how their livelihoods were impacted. I chose to study this accident and its effects on the regional pilot industry because I will soon be a regional airline pilot myself, and I am interested in knowing how my profession was affected by a singular accident. Through my research, I discovered that Colgan 3407's ramifications still affect the pilot profession to this day. Airline pilots are now required to meet Airline Transport Pilot (ATP) minimums (1,500 hours total time) and have experienced substantial increases in pay and career progression. Moreover, the level of safety within the airline industry has increased, given the introduction of proactive 14 CFR Part 117 rest rules which aim to both inhibit and reduce pilot fatigue occurrences. Airline pilots became empowered

Running head: REGIONAL AIRLINE PILOT PROFESSION POST COLGAN 3407 Maas 4 to call out of work when experiencing inhibiting levels of fatigue, and no longer face punitive action when doing so.

Background of the Accident

On February 12th, 2009, Continental Connection flight 3407 (operated by regional affiliate Colgan Air), was scheduled to operate from Newark, New Jersey (EWR) to Buffalo, New York (BUF) airport at 1930 local time. Major airlines, like Continental, often farm out flights on smaller aircraft to smaller destinations to third-party contract carriers called regional airlines. Regional airlines often utilize cheaper, less-experienced labor to operate smaller aircraft that are focused in one geographic area (Ashville Regional Airport, 2016). Continental Airlines had a capacity purchase agreement with Colgan Air to operate flights under the Continental Connection banner. Due to inclement weather that would impact the safety of flight, the crew elected to push back the departure time to roughly 2100 local time from 1900 local time (Beresnevicius, 2019). The flight was operated with a Bombardier Q400 turboprop aircraft with a total capacity of 74 seats.

The aircraft was commanded by Captain Marvin Renslow. Renslow had a less than ideal pilot performance record, as he received notices of disapproval for the initial attempts of his Commercial Multi-Engine and Commercial Single-Engine checkrides (Garrison, 2010). A checkride is an end-of-course check performed by a designated pilot examiner from the Federal Aviation Administration (FAA) to grant an airman a new certificate or rating. Checkride performance is a strong indicator of future success as a crewmember, as it demonstrates how a pilot can perform under pressure and under a variety of abnormal or emergency situations. He failed to disclose these disapprovals to Colgan Air upon acceptance of employment (Garrison, 2010). According to Title 14 of the Code of Federal Regulations (CFR) Part 121.441 (Proficiency Checks), airline pilots must undergo proficiency checks at six-month intervals to ensure they can safely operate the aircraft. While at Colgan Air, he failed numerous pilot

The aircraft was flown in known icing conditions (the weather was favorable for the accumulation of ice on the airframe), so the crew elected to utilize the de-icing equipment onboard the aircraft at their cruising altitude of 16,000 feet (Beresnevicius, 2019). When critical flight control surfaces, such as the wings, tail, and horizontal stabilizer, are exposed to icing conditions and accumulate ice, they lose their effectiveness and are unable to generate the lift needed to sustain the aircraft in flight. The crew, in fear of developing ice on the critical flight controls surfaces, requested descents down to 12,000 feet, and then 11,000 feet, where conditions were less favorable for the development of ice given (lower altitudes are associated with higher air temperatures where the air temperature is above freezing) (Beresnevicius, 2019).

Upon reaching the terminal airspace surrounding Buffalo, the aircraft began receiving radar vectors to join the final approach course of the Instrument Landing System (ILS) approach in use (Garrison, 2010). According to an article regarding ILS approaches published by Skybrary, an ILS approach provides horizontal and vertical guidance to an aircraft to provide exact runway alignment all the way to touchdown through the usage of both ground-based and on-board navigation radios. There was light to moderate ice accumulation on the airframe, and the autopilot was engaged (Garrison, 2010). As flaps and gear were deployed, the airspeed began to rapidly decline. Flaps and landing gear increase the total drag of an aircraft and act as a slowing force and reduce the lift that the aircraft can generate. As a result, they act in unison to slow the aircraft down.

Given the low airspeed and heavy drag (caused by the deployment of the landing gear and flaps) and the crew's failure to recognize the unwanted aircraft state, the aircraft entered an aerodynamic stall. The captain elected to correct the stall by lowering the aircraft's pitch (where the nose of the plane points in relation to the horizon) as opposed to adding power and lowering pitch (standard stall recovery procedures). At approximately 130 knots, the stick shaker of the aircraft was activated, abruptly notifying both the Captain and First Officer that an aerodynamic stall was impending (Garrison, 2010). The stick shaker refers to the shaking motion the yoke of the aircraft makes as an aerodynamic stall is impending. According to an article regarding stalls published by SKYbrary, stalls indicate that the critical flight control surfaces are not generating enough lift to sustain the aircraft at its present position at its altitude. At this point, the airplane's autopilot was automatically disconnected (Garrison, 2010).

An aircraft will stall at a higher airspeed when it is covered in ice because the presence of ice greatly diminishes the amount of lift that the aircraft is able to generate (Skybrary). As a

Running head: REGIONAL AIRLINE PILOT PROFESSION POST COLGAN 3407 Maas 8 result, the aircraft will stall sooner and at a higher airspeed than an uncontaminated (non-iced) aircraft. Given that the airplane was in icing conditions, the stick shaker was activated at a higher indicated airspeed. It is presumed that the captain lost situational awareness that his airplane was contaminated and chose to carry the airplane down slower to the normal stalling speed (Garrison, 2010). The captain ignored airspeed and attitude indications and increased back pressure (force) on the yoke. Generally, this correlates to an increase in lift generated. However, given that the aircraft was in a stalled state, Resnlow's actions increased the negative effects of the stall and further stalled the airplane. At this point, the captain was aware he was stalled but only corrected this with power as opposed to power and lowering the aircraft's pitch, which is required to recover from a stall (Garrison, 2010). The First Officer responded to the pitching and banking moments by bringing the flaps and gear up which destroyed the minimal lift that the airplane was able to generate. The aircraft then began a rolling moment and nose-dived into terrain surrounding Buffalo's airspace (Garrison, 2010).

NTSB 830 Findings

The NTSB is a federal agency, independent of the FAA, tasked with finding the probable cause for accidents and provides feedback to regulatory agencies on legislation it believes will prevent such accidents in the future. It is not a regulatory body; it acts on behalf of the regulatory body to find probable cause and to provide unbiased feedback on methods to prevent accidents in the future.

In the 49th Title of the Code of Federal Regulations (CFR), the definition of an "accident" rests under Part 830. According to 49 CFR Part 830.2, an aircraft accident is defined as "an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked.

Running head: REGIONAL AIRLINE PILOT PROFESSION POST COLGAN 3407 Maas 9 and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage." Given that 52 lives were lost aboard Colgan 3407, this situation is classified as an accident.

The NTSB noted the probable causes of the accident as follows: 1) the Captain's incorrect response to the stall warning system 2) the flight crew's inability to adhere to a sterile cockpit (meaning communication outside of what was absolutely necessary occurred) 3) the Captain's inability to properly lead his flight and 4) Colgan Air's lack of proper training regarding aircraft performance in icing conditions (NTSB, 2009, p. 155).

Based upon their research, the NTSB issued several regulatory change recommendations for the FAA. These recommendations are not enforced nor imposed by the NTSB; they are simply recommendations for the FAA to implement at their discretion. Given Captain Renslow's lack of authority regarding flight, the NTSB recommended that incoming airline captains receive leadership training prior to taking command of the aircraft (NTSB, 2010, p. 156).

In response to First Officer Shaw's role commuting from her home in Seattle to her base in Newark, New Jersey the day morning of the accident, the NTSB recommended airlines address the fatigue imposed on pilots by commuting with a specific focus on commuting across different time zones. Moreover, the NTSB suggested the FAA encourage airlines to create schedules that eliminate the potential of fatigue in commuting pilots (NTSB, 2010, p. 157).

Finally, given Captain Renslow's lackluster training history that he failed to disclose to Colgan Air, the NTSB recommended that pilot training records be kept in either electronic or paper copy and be descriptive enough so that an inspector from the FAA could judge the quality of a pilot through observation of said records. Air carriers must actively record and report pilot training and evaluation events and whether they were graded with a "pass" or "fail." By

Running head: REGIONAL AIRLINE PILOT PROFESSION POST COLGAN 3407 Maas 10 requiring constant reporting of pilots and the training quality of the pilots being examined, the FAA would be able to track trends within pilots and potentially remove them from duty before an accident could occur (NTSB, 2010, p. 157).

Pilot Records Database

Given the concerns associated with Captain Renslow not disclosing his previous failed checkrides to Colgan Air, the FAA determined that verification of pilot's training and work histories needed greater oversight. Before Colgan 3407, there was not a requirement for airlines to report pilot performance (check passes/failures, accidents/incidents, letters of discipline) while at the employer (Aufdenkampe, 2021). This did not give prospective future employers an adequate picture of the candidate they were hiring. Prior to the creation of the Pilot Records Database (PRD), the FAA had the Pilot Records Improvement Act (PRIA) in place which recorded pilot performance for major training events (Jackson, 2021). However, there was no requirement for an air carrier to report pilot check passes/failures while employed (Aufdenkampe, 2021). This created a discrepancy in pilot performance reporting, as future employers were not able to see the aptitude and skills the pilot demonstrated while at their former employer. As a result, the FAA developed the PRD.

This database takes PRIA further and aims to digitize pilot records overtime (Jackson, 2021). Air carriers are required to submit an information request to review the pilot qualifications, training failures, enforcement actions, and accident/incident history. This transition to a digital platform and requirement to screen pilots' past performance acts as an indicator to future employers regarding safety and performance (Jackson, 2021). It allows for an open conversation between the applicant and the employer regarding past performance which will improve the overall safety of flight (Jackson, 2021). Moreover, airlines are required to report

Running head: REGIONAL AIRLINE PILOT PROFESSION POST COLGAN 3407 Maas 11 certain training events, disciplinary actions, and separation of employment to the PRD regularly. By appropriately reporting events within a pilot's career to the PRD and having that information readily accessible to future employers, employers can hire candidates who consistently fly safely and demonstrate good judgment.

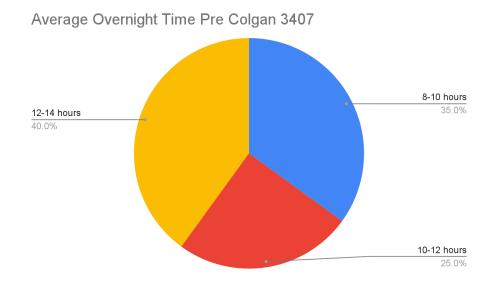
14 CFR Part 117 Rest Regulations

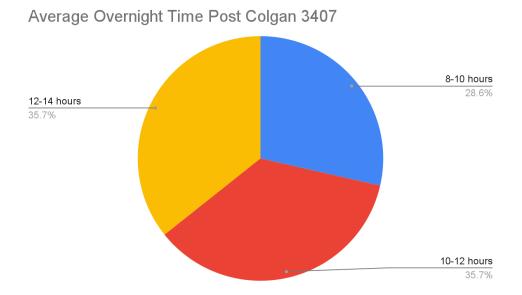
Prior to the Colgan 3407 accident, rest regulations were covered under Title 14 of the Code of Federal Regulations (CFR) Part 121 as a subtopic. Title 14 CFR relates to Aeronautics and Space, and Part 121 refers to scheduled Air Carrier operations, which include airlines such as Colgan Air. The FAA created a completely new section within Title 14 of the CFR entitled Part 117: Flight Duty and Limitations and Rest Requirements: Flight Crewmembers (Stahl, 2019). The enactment of an entire new section within Title 14 for rest rules provides greater clarity and increased scope for pilot fatigue. According to Stahl (2019), the corrections in rest regulations were exacerbated by Colgan 3407 but were evident throughout the entire industry. As a result, the FAA had an idyllic opportunity to correct its regulatory shortcomings.

One of the most crucial changes in legislation that came about in Part 117 was the change in minimum rest time. Prior to Colgan 3407, airline pilots had a regulatory minimum of eight hours off duty before they would be expected to return to work again (Stahl, 2019). Factoring in an hour to deboard, take the airport shuttle, check into the hotel, and reverse the process the next morning, this would often leave pilots with only six hours of sleep per night. Part 117 requires a minimum of 10 hours off duty, ensuring the pilot receives eight hours of sleep time a night (Stahl, 2019). Having adequate time to rest is crucial for a pilot, as flying fatigued impairs decision-making skills, judgment, and response times. This change decreases the chance for fatigued flying, thus avoiding potential catastrophic consequences. 14 CFR Part 117 goes further

to require airlines to track all fatigue calls, address their root causes, and identify ways to prevent said calls in the future. It also bars the airline from taking punitive action against the pilot for calling in fatigued (Stahl, 2019). This is an essential move for safety, as previously, flight crews could be punished if they called in fatigue. Consequently, pilots would fly fatigued to avoid such consequences. Airlines were also required to implement Fatigue Risk Management Plans (FRMP) to ensure crews are not operating the aircraft in a tired state (Sthal, 2019). This regulatory change empowers pilots to call out when fatigued and encourages management to look at causes of pilot fatigue, enhancing the safety of flight, as fatigue impairs pilots' decision-making abilities and overall flying skills.

In order to further understand the impact of changes because of the introduction of 14 CFR Part 117 legislature, it was necessary to survey regional airline pilots, both pre and post Colgan 3407, to determine how much their average minimum overnight time changed.





The data collected overall did not suggest that rest times have substantially improved since the introduction of Part 117 legislature. The 8 –10-hour category shrank and the 10–12-hour rest category expanded, suggesting that there was a slight increase in the minimum rest time that regional airline pilots had. One may have expected rest times to dramatically increase since the introduction of such legislation, but the data proved otherwise. For a full list of survey questions and results, reference Appendix A.

1,500 Hour Rule

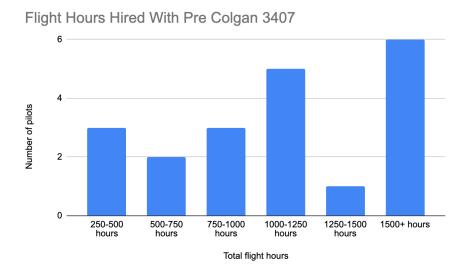
Prior to the Colgan 3407 accident, First Officers (often referred to as Second-in-Command) of large, transport category aircraft (such as the Bombardier Q400) had to hold a minimum of a commercial pilot certificate with instrument airplane and multi-engine ratings (Smith-Kohls, 2021). According to Title 14 of the Code of Federal Regulations (CFR) Part 61.129 (Commercial pilot aeronautical experience), an airman must gain a minimum of 250 flight hours total time to be eligible for such a certificate. A "rating" refers to a privilege on an airman's certificate that allows them to operate a certain type of airplane, such as a multi-engine airplane or an airplane operating under instrument meteorological conditions. According to 14

CFR Part 61.133 (Commercial pilot privileges and limitations), a commercial pilot certificate allows a pilot to act for compensation or hire. In response to the crash of 3407, the FAA introduced legislation to ensure that First Officers operating transport category aircraft hold an Air Transport Pilot (ATP) certificate, a certificate grade above a commercial pilot. To be eligible for an ATP certificate, pilots must log 1,500 hours total flight time.

ATP applicants who train at an accredited aviation university are eligible for ATP certificates at 1,000 flight hours while military pilots can apply for an ATP certificate at 750 hours (Smith-Kohls, 2021). The FAA enacted this rule in response to the Colgan 3407 accident because they recognized that safe pilots come in part due to their experiences in the formative stages of their careers. Pilots will be given situations between zero and 1,500 hours that will force them to think critically and act rationally, all positively translating to a transport category aircraft.

Although pilot experience was not a contributing factor in Colgan 3407, the FAA decided to adopt these regulations to enhance the safety of the National Airspace System (NAS). Despite the belief of the FAA that these enhanced minimums will improve safety, there are critics who say otherwise. According to Goyer (2022), the adoption of the new criteria in no way heightens aviation safety, as the pilots of Colgan 3407 exceeded the minimums needed for the ATP certificate. Goyer further argues that before the change in legislation, airlines were able to hire lower-time pilots as staffing demands increased. There is a lag period between the time that pilots complete their commercial certification and the time they are eligible for ATP certification, bottlenecking the supply of pilots who are available to the regional airline industry. This correlates to slashed airline schedules and flights that have been either delayed or canceled (Goyer, 2022).

Another area to review is data regarding the total number of flight hours that regional airline pilots were hired with both before and after Colgan 3407 to analyze the breadth of differing pilot experiences that would qualify a pilot for a regional airline first officer position.



There appears to have been a near even split in the data collected between the total number of hours that each of the pilots had when they were hired at their regional. Twelve pilots were able to get hired before what would today be ATP minimums, while seven were hired at or above today's minimums. The higher time pilot hiring can be attributed to a flooded hiring market caused by lower barriers to entry in the regional pilot market, which was directly caused by lower hour requirements to become an airline pilot.

Flight Hours Hired With Post Colgan 3407

The graph above displays the flight hours that regional airline pilots were hired at post Colgan 3407. All pilots surveyed were Western Michigan University graduates and thus qualified for an ATP certificate at 1,000 hours. Those who were hired between 750 and 1,000 likely were hired in anticipation of reaching their minimum hourly requirement just prior to beginning at their regional airline.

The survey results showed that most regional airline pilots hired before Colgan 3407 were in the 1,500+ hour category, despite regulations requiring a minimum of 250 hours. This is a direct result of an oversaturated pilot market caused by low hiring minimums. Post Colgan 3407, most pilots were hired within the 1,000 hour-1,200 hour category. The data suggested that most pilots were hired with hours greater than that of those hired post Colgan 3407.

Regional Airline Pilot Shortage

Given the shortage of pilots qualified for an ATP certificate in part due to the adoption of the 1,500-hour rule, regional airlines have been strapped to find crew members to work their flights, and as a result, have had to slash flights. According to Russell (2022), United Airlines halted to 17 cities served by regional affiliates at United Express due to the lack of pilots to

Maas 17

being hired by larger airlines in record numbers. Given the high financial barriers to enter the profession and the time commitment to build 1,500 hours of flight time, regional airlines are being forced to eliminate routes to triage their dwindling pilot group.

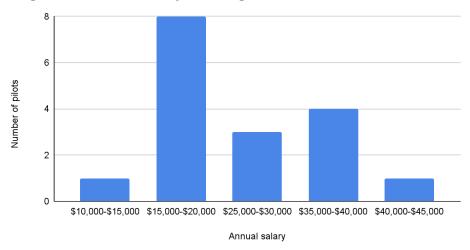
To secure a new generation of pilots, many airlines have offered cadet programs that take pilots from the beginning stages in their career up until ATP requirements. These cadet programs will take pilots through their initial flight training certifications (private pilot, instrument rating, commercial single engine and multiengine, and Certified Flight Instructor) and guarantee a job upon completion of the regulatory ATP minimums. According to Klapper (2022), United Airlines became the first major air carrier in recent years to purchase a flight school. United will supply 5,000 of the 10,000 pilots it needs in the next decade through their flight school, known as the Aviate Academy. By operating their own flight school, United can secure pilots at the earliest stages of their career, thus ensuring a steady pipeline of pilots to feed their regional carriers.

Pay

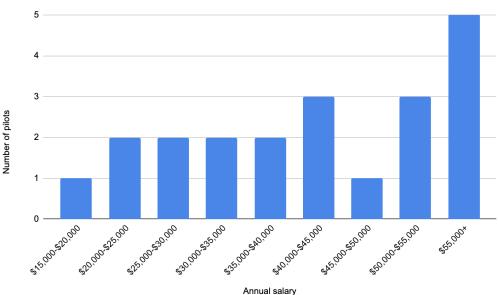
Career airline pilots traditionally begin their careers at regional airlines. These carriers operate smaller aircraft in a more condensed route network and have lower hiring minimums than larger airlines. The lower hiring minimums directly correlate with lower pay. Pilot pay is based on years of experience with the company, hours credited per month of flight time, and fleet type. Generally, the larger the operated airplane is (and the higher the passenger seat count), the greater the compensation. According to Associated Press (2009), First Officer Shaw made \$16,000 a year at Colgan Air while Captain Renslow earned \$55,000 that year at Colgan Air. Upon investigating Colgan 3407, Congress was stunned how little regional airline pilots earned

Running head: REGIONAL AIRLINE PILOT PROFESSION POST COLGAN 3407 Maas 18 considering the job they performed (NBC New York, 2009). This is consistent with the pay earned by regional airline pilots employed before Colgan 3407 surveyed.





Of the 17 pilots surveyed who served as First Officers at regional airlines, one pilot made between \$10,000-\$15,000, eight pilots made between \$15,000-\$20,000, three pilots made between \$25,000-\$30,000, and one pilot made between \$40,000-\$45,000. The mode of this data is synonymous with the salary of First Officer Shaw while she was employed at Colgan Air.



First Year Regional First Officer Pay Post Colgan 3407

Next, data was collected from 21 pilots who operated their first year as a regional First Officer post Colgan 3407. One pilot made between \$15,000 and \$20,000. Two pilots each made between \$20,000-\$25,000, \$25,000-\$30,000, and \$35,000-\$40,000. Three pilots earned between \$40,000-\$45,000, while one pilot earned between \$45,000 and \$50,000. Three additional pilots earned between \$50,000-\$55,000. The mode salary for this set of data was the five pilots earning \$55,000+ annually. This is nearly triple the annual salary earned by a first year regional First Officer before Colgan 3407. In conjunction with the pilot shortage brought about by the 1,500-hour rule from the ramifications of Colgan 3407, regional airlines have been forced to increase their salaries to attract qualified candidates (Wolfsteller, 2022).

The data collected agrees with findings that pilot pay has substantially increased since Colgan 3407. Recently, regional airline pilot pay has yet again increased to record levels.

According to Wolfsteller (2022), regional airline CommutAir is offering an hourly rate of \$72 to first-year regional airline pilots, while Mesa Airlines is offering \$100 an hour. This suggests an

Running head: REGIONAL AIRLINE PILOT PROFESSION POST COLGAN 3407 Maas 20 extreme lack of pilots available to fly for regional airlines which, in turn, is driving pilot pay higher.

Regional Airline Pilot Career Progression

Most regional airline pilots aspire to transition to larger airlines such as United or Delta upon gaining flight experience at their initial airline. I surveyed regional airline pilots both before and after the accident to determine if Colgan 3407 resulted in a more defined career path for pilots as they transition from regional to major airlines. I defined career progression as either a guaranteed interview with a major airline upon completion of hourly/length of service requirements or a flow-through program (automatic position at a major airline upon reaching a high enough seniority).

Of the pilots who were at regionals prior to Colgan 3407, 58% had some sort of career progression to a major carrier whereas 40 percent of pilots hired after Colgan 3407 enjoyed defined career progression. These results went against what I anticipated, as given the pilot shortage caused by Colgan 3407 and the subsequent 1,500-hour rule, I assumed that regional airlines would have more defined career progressions to attract a greater number of eligible pilots to their operation.

Post Colgan 3407, major airlines have partnered with regional airlines to develop flow-through programs to secure a steady flow of new pilots. United Airlines is actively working against the upcoming pilot shortage through the introduction of their Aviate program. According to Singh (2021), United plans on taking pilots from low time in early stages into their career, assimilating them within United's culture, and ultimately guaranteeing them pilot positions at United. By securing pilots early in their career, United is establishing a set flow of pilots to combat retirements, attrition, and growth in the future. The airline has partnered with multiple

Running head: REGIONAL AIRLINE PILOT PROFESSION POST COLGAN 3407 Maas 21 universities and professional flight schools to aid in this mission. Upon reaching their hourly minimums at professional partners, these pilots will work within the United Express system, thus providing a steady flow to staff their regional partners (Singh, 2021). According to Poitevien (2022), United established their own flight school in Goodyear, Arizona, with the intention of training 5,000 of the 10,000 pilots that United will need over the next decade.

Conclusion

Colgan Flight 3407 had a ripple effect across the entire regional airline industry. It revealed flaws within hiring minimums and rest requirements and emphasized the need for adequate training and accurate reporting of training events. Pilot fatigue came to the forefront of concern, with the FAA creating Part 117 to counteract the extreme risk that pilot fatigue poses. The changes in legislation brought about by the accident affected pilot hiring programs substantially and increased the barriers to entry for the profession by requiring 1,500 hours instead of the previous 250 hours. Regional airline pilot candidates must now be eligible for ATP certification, greatly reducing the supply of candidates who are eligible for hiring. Regional airline pilots are getting paid substantially more and are in much greater demand than prior to Colgan 3407. Although Colgan Air regrettably resulted in the loss of 52 lives, it spurred the change needed to increase the safety of regional airline travel and improve the livelihoods of regional airline pilots.

References

- Ashville Regional Airport. (n.d.). What's the difference: Regional vs. network airlines. What's the Difference: Regional vs. Network Airlines. Retrieved October 2, 2022, from https://flyavl.com/article/whats-difference-regional-vs-network-airlines
- Aufdenkampe, S. (n.d.). *Airline alert: FAA publishes final rule to transition to electronic pilot Records Database*. JD Supra. Retrieved October 2, 2022, from https://www.jdsupra.com/legalnews/airline-alert-faa-publishes-final-rule-6608595/
- Beresnevicius, R. (2019, July 22). *How flight 3407 completely changed aviation safety*.

 AeroTime Hub. Retrieved October 2, 2022, from

 https://www.aerotime.aero/articles/23034-flight-completely-changed-aviation-safety
- Garrison, P. (2021, November 11). *Aftermath: The mystery of colgan 3407*. Aftermath: The Mystery of Colgan 3407. Retrieved October 2, 2022, from https://www.flyingmag.com/safety-accident-investigations-aftermath-mystery-colgan-340 7/
- Goyer, I. (2022, June 24). *The 1500-hour rule is largely to blame for the airline mess we're in today*. Plane & Pilot Magazine. Retrieved October 2, 2022, from https://www.planeandpilotmag.com/news/opinion/2022/06/24/the-1500-hour-rule-is-large ly-to-blame-for-the-airline-mess-were-in-today/
- Jackson, K. S. (2021, October 7). *Pilot records database*. JETLAW. Retrieved October 2, 2022, from https://jetlaw.com/pilot-records-database/

- Klapper, E. (2022, January 28). *United Airlines officially opens its new flight school as it tries to tackle pilot shortage*. The Points Guy. Retrieved October 2, 2022, from https://thepointsguy.com/news/united-airlines-aviate-academy/
- Legal Information Institute. (n.d.). *14 CFR § 61.129 aeronautical experience*. Legal Information Institute. Retrieved October 2, 2022, from https://www.law.cornell.edu/cfr/text/14/61.129
- Legal Information Institute. (n.d.). *14 CFR § 61.133 commercial pilot privileges and limitations*. Legal Information Institute. Retrieved October 2, 2022, from https://www.law.cornell.edu/cfr/text/14/61.133
- National Transportation Safety Board. *Loss of control on approach Colgan Air, Inc.. operating as*... *NTSB*. National Transportation Safety Board. (2010, February 2). Retrieved October
 2, 2022, from
 https://www.ntsb.gov/investigations/AccidentReports/Reports/AAR1001.pdf
- NBC New York. (2009, May 16). Congress stunned by Flight 3407 Pilots' pay. NBC New York.

 Retrieved October 2, 2022, from

 https://www.nbcnewyork.com/news/local/congress-stunned-by-flight-3407-pilots-pay/18
 95708/
- Russell, E. (2022, March 1). *United ends 17 routes as airlines manage worsening U.S. pilot shortage*. Airline Weekly. Retrieved October 2, 2022, from https://airlineweekly.com/2022/03/united-ends-17-routes-as-airlines-manage-worsening-u-s-pilot-shortage/

- Singh, J. (2021, December 3). *United's first Aviate Academy class nears start date*. Simple Flying. Retrieved October 2, 2022, from https://simpleflying.com/united-aviate-academy-first-class-start/
- SKYbrary. (n.d.). *Instrument landing system (ILS)*. SKYbrary Aviation Safety. Retrieved October 2, 2022, from https://skybrary.aero/articles/instrument-landing-system-ils
- SKYbrary. (n.d.). *Stall*. SKYbrary Aviation Safety. Retrieved October 2, 2022, from https://www.skybrary.aero/articles/stall
- Smith-Kohls, T. (2022, August 19). What exactly is the FAA 1500 hour rule? California

 Aeronautical University. Retrieved October 2, 2022, from

 https://calaero.edu/faa-1500-hour-rule/
- Stahl, S. (2019, January 3). FAR 117 revitalized rest or needless rulemaking? Aero Crew News.

 Retrieved October 2, 2022, from

 https://aerocrewnews.com/aviation-news/safety-matters/far-117-revitalized-rest-or-needle
 ss-rulemaking/
- Wolfsteller, P. (2022, September 21). Swelling pilot pay could force us regionals to contract, impacting communities: CEOS. Flight Global. Retrieved October 2, 2022, from https://www.flightglobal.com/strategy/swelling-pilot-pay-could-force-us-regionals-to-contract-impacting-communities-ceos/150258.article

Q1 - Were you at a regional before or after Colgan 3407?



Field	Min	Max	Mean	Standard Variance Responses Deviation
Were you at a regional before or after Colgan 3407?	1	2	2	0 0 56
Field				Choice Count
Before				25
After				31
Total				56

Q2 - How much total flight time did you have when you were hired?

How much total flight time did you have when you were hired?
2700
2500
1150
290
900

Q3 - How long did you spend at your regional?

How long did you spend at your regional?

Still there 22 years

14 years

7.5 years

7 years

9 years

Q4 - What regional(s) did you work at?

What regional(s) did you work at?

Mesa

Mesaba/ Endeavor

Comair for a year, Compass for 6.5 years

ASA

Mesaba

$\ensuremath{\mathsf{Q5}}$ - How long did it take you to upgrade to Captain? (Put N/A if you did not upgrade)

How long did it take you to upgrade to Captain? (Put N/A if you did not upgrade)			
4 years			
3 years			
3 years			
4 years			
1 year			

Q6 - Did you have a flexible commuter policy (if you commuted), please explain it below

Did you have a flexible commuter policy (if you commuted), please explain it below

So so. Must list for 2 flight then there us no Jeopardy

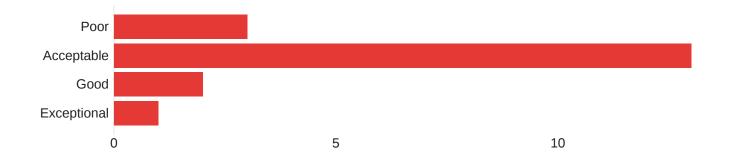
Not a commuter

Yes. Companies only required one back up.

Did not commute

Yes, i felt it was flexible

Q7 - What was the quality of the hotels your regional provided you with?



Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What was the quality of the hotels your regional provided you with?	1	4	2	1	0	19
Field					(Choice Count
Poor						3
Acceptable						13
Good						2
Exceptional						1
Total						19

Q8 - What was your annual take home pay as a First Officer?

What was your annual take home pay as a First Officer?

30-35k

First year was \$23000

14-15k

Depends on year and fleet- first year 19k, 2nd 28k, 3rd 32k, 4th 36k

30-40,000

Q9 - What was your average minimum duty time?

What was your average minimum duty time?

N/A can't remember

10 hrs

3.5hrs

10-12 hours

10

Q10 - What was your average overnight time?

What was your average overnight time?

11-14 hours

13 hrs

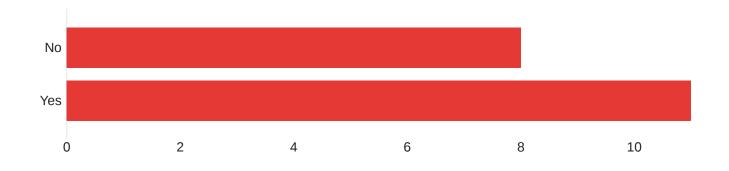
13hrs

12-14 hours

12

Choice Count

Q11 - Did your regional offer any career progression to a major carrier (flow through, guaranteed interview?)



Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Did your regional offer any career progression to a major carrier (flow through, guaranteed interview?)	1	2	2	0	0	19

No	8
Yes	11
Total	19

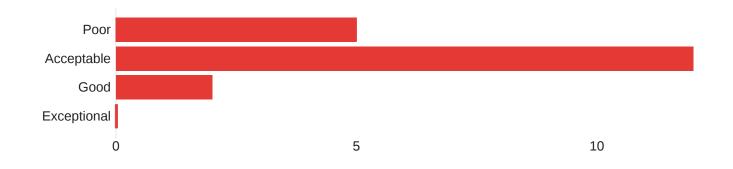
Field

2

0

19

Q12 - How would you rate your overall quality of life at your regional?



Field	Min	Max	Mean	Standard Deviation	Variance	Responses
How would you rate your overall quality of life at your regional?	1	3	2	1	0	19
Field					(Choice Count
Poor						5
Acceptable						12

Good

Total

Exceptional

Q13 - How much total flight time did you have when you were hired?

How much total flight time did you have when you were hired?
1200
1000
1000
975
640

Q14 - What regional did/do you work at?

What regional did/do you work at?

ExpressJet Airlines

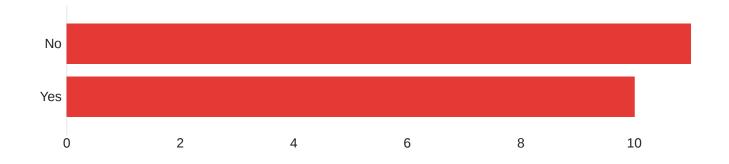
Shuttle America

Mesa/Compass

SkyWest

CommutAir

Q15 - Did your regional offer any signing bonuses?



Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Did your regional offer any signing bonuses?	1	2	1	0	0	21
Field					(Choice Count
No						11
Yes						10
Total						21

Q16 - Does/did you have a flexible commuter policy (if you commute), please explain it below

Does/did you have a flexible commuter policy (if you commute), please explain it below

Proof of listing for a seat on two flights before commencement of scheduled duty

No

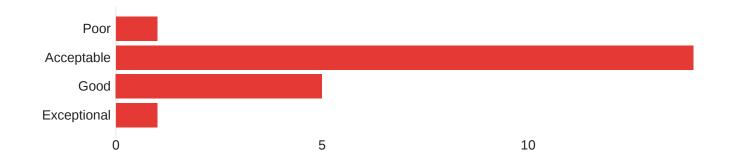
No

No commuter policy at all. Just a "get to work" culture.

Started with none, ended with a 2 options commute policy

Choice Count

Q17 - What is the quality of the hotels your regional provides/provided you with?



Field	Min	Max	Mean	Standard Deviation	Variance	Responses
What is the quality of the hotels your regional provides/provided you with?	1	4	2	1	0	21

Field

Poor	1
Acceptable	14
Good	5
Exceptional	1
Total	21

Q18 - What is/was your annual take home pay as a First Officer?

What is/was your annual take home pay as a First Officer?

Between 25-40k annually

30000

First year? 19,500

Around \$50,000

23000

Q19 - How long do you anticipate it will take you to upgrade to Captain (or, how long did it take you to upgrade)?

How long do you anticipate it will take you to upgrade to Captain (or, how long did it take you to upgrade)?

4.5 years, left for upgrade at a different airline

5 years

Mesa I never upgraded, Compass 2 years

As soon as you can get 1000 hours. For me it'll take about 1.5 years due to reserve and canceled flights from staffing.

2 years

Q20 - What is your average minimum duty time?

What is your average minimum duty time?

10 hours

10 hours

10hrs

Not sure. We follow part 117.

N/A

Q21 - What is your average minimum rest time?

What is your average minimum rest time?

12

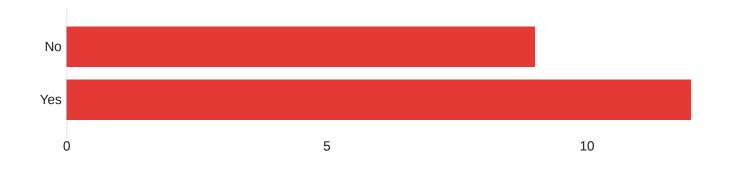
12 hours

10hrs

Part 117 minimum rest. Average layover is probably around 13 hours.

8 later 10

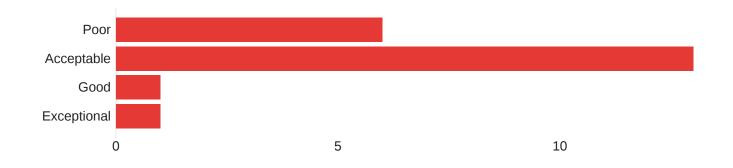
Q22 - Does your regional offer any career progression to a major carrier (flow through, guaranteed interview?)



Field	Min	Max	Mean	Standard Deviation	Variance	Responses
Does your regional offer any career progression to a major carrier (flow through, guaranteed interview?)	1	2	2	0	0	21
Field					(Choice Count
No						9
Yes						12
Total						21

21

Q23 - How would you rate your overall quality of life at your regional?



Field	Min	Max	Mean	Standard Deviation	Variance	Responses
How would you rate your overall quality of life at your regional?	1	4	2	1	1	21
Field					(Choice Count
Poor						6
Acceptable						13
Good						1
Exceptional						1

Total