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November 26, 2021

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Dear Mr. Funk, Mr. Gerrett, and the team of Operations Leads and Irregular Operations Coordinators:

Attached is my report for the Feasibility Analysis of Initializing a Fatigue Risk Management Program for WestJet Airport Agents. This report includes an analysis of fatigue risks identified in WestJet agents at YVR and the recommendations to mitigate such hazards. Thank you for your time in considering this analysis report.

Fatigue is a concerning risk that affects an individual's physical and cognitive ability to function normally. In the aviation industry where safety is of the most paramount importance and failure may mean loss of life or severe injury, fatigue risk is heavily regulated by Transport Canada to protect workers from endangering their own and others' health. A current management program has been set in place to protect the flight crew from accumulating fatigue risk.

Through the survey and interviews conducted with anonymous local YVR WestJet agents, this report details the alarming factors found in individuals that match to Transport Canada's list of fatigue risk hazards and possible consequences. Showing an urgent need for a fatigue management program for local YVR WestJet agents working on the floor, this report aims to provide starting steps to start a fatigue risk management program such as increasing awareness and shifting schedules for relief agents.

Fatigue is a serious occupational hazard that should be acknowledged as a concern for on-the-floor agents, and I hope that this risk can be properly addressed for the continual well-being and health for all currently working agents. Please contact me at yanchorki@gmail.com if there are any questions or other concerns!

Sincerely,

Kitty Yan

Feasibility Analysis of Initializing a Fatigue Risk Management Program for WestJet Airport Agents

Prepared for

Stephan Funk, General Manager, and

Trevor Gerrett, General Hub Manager, and

the management team of Operation Leads and Irregular Operations Coordinators

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By

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November 26, 2021

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ABSTRACT

Fatigue, a feeling of tiredness, can affect an individual's physical and cognitive ability to function normally, and runs the risk of being cumulative and contributing to serious and fatal consequences. In the aviation industry, Transport Canada mandates regulations and management programs only for flight crew, but a potential group of workers who may be overlooked for fatigue risks and hazards are ground agents.

WestJet ground agents at the Vancouver International Airport were asked to participate in an anonymous survey and/or an interview that looks to identify potential fatigue hazards and risks and the necessity of a fatigue risk management program. The results highlight a significant concern for fatigue risk and a significant need for such a program to improve the well-being and health of local agents.

This report combines the research on fatigue risk mainly conducted by Transport Canada and the results of the survey and interview questions to list up feasible recommendations to start a fatigue risk management program:

- Increase awareness of fatigue hazards and risks through company-wide/Vancouver WestJet monthly newsletters and quarterly meetings, the Health and Safety Committee and during on-board training
- Keep breaks and tasks scheduled within a reasonable period
- Take advantage of relief agents and P1 shifts to cover short manpower
- Train DDC on the topic of fatigue risk (possibly with the same training as airport operators)

INTRODUCTION

Fatigue is defined as “the feeling of tiredness or exhaustion from the lack of energy or strength” (HealthLink BC). Fatigue risk then is the possibility of adverse consequences for people and their environment that come from fatigue, especially in safety-critical industries. Similar to the rail and marine industry, aviation is one of the industries that require an awareness of fatigue and a call of action in fatigue risk prevention.

There are many research studies conducted on fatigue risk, but specifically to Canada’s aviation industry, there have been sighted crew performance implications based on different fatigue hazards. Specifically, Transport Canada has noted the following where having:

- Long duty periods increase the likeliness of reduced alertness, impaired attention, degraded reaction time
- Night duties increases transient fatigue, sleep deprivation, impaired or reduced sleep due to daytime rest, degraded alertness, errors, slips or lapses in performance
- Split duty increases likeliness of reduced alertness, impaired attention, degraded reaction time, decreased vigilance, impaired attention.
- Disruption and/or extended wakefulness increases transient fatigue issues, long duty day, stress and hassle leading to shortened sleep opportunity, reduced alertness, slow reaction time, task fixation, decreased vigilance errors, slips and lapses in performance.
- Long travelling time can increase transient and cumulative fatigue, extended periods of wakefulness, reduced and/or shortened sleep opportunity leading to reduced alertness, slow reaction times, errors in performance.

Based on these factors and other fatigue hazards, there are current fatigue risk management programs mandated by Transport Canada for the rail and marine industry as well as a large, concentrated focus on the aviation industry for flight. In particular, two approaches to fatigue management were introduced for amendments in December 2018 which can be summarized to setting requirements that define maximum hours of work, flight time and flight duty periods, as well as minimum rest periods and time free from duty for flight crew members to combat the factors as noted above.

The purpose of this report is to highlight the current fatigue risks through research conducted by Transport Canada and other government agencies and the mandated requirements for flight crew and compare to local WestJet ground agents at the Vancouver International Airport. If potential risk and hazards are identified for fatigue in local YVR WestJet ground agents, the report aims to provide possible recommendations to mitigate such risks and hazards, specifically through the initialization of a fatigue risk management program.

The current findings for this report is based on a series of around 20 questions from an anonymous survey and a short interview with 4 agents from various duties and positions. The scope of the questions asked were based on the following:

- What are the current schedules of agents, and what are their areas of duties they complete within those hours?
- What is the average amount of overtime they commit over operational delays, and how regular are these operational delays that affect their hours of work?
- What are the current resources available to the agents if they are unable to continue working or become hazardous to themselves and others because of fatigue?

- Do agents recognize that they have fatigue and if they do, what ways are they mitigating this risk themselves?
- What are the senior managers doing to overcome the challenges of over-stressing their agents?

Based on the survey and interviews, the importance of a fatigue management program is severely highlighted, and there are a lot of actions needed to be enacted on for the safe wellbeing of local WestJet agents. The recommendations as provided will highlight the possible first steps to initialize a fatigue management program, which includes increasing fatigue awareness and supporting agents with better scheduling.

DATA SECTION

Sources of Fatigue Risk

Common causes of fatigue come from a multitude of factors that include the amount and quality of sleep and workplace tasks, environment and scheduling. The latter sources may include repetitive or strenuous tasks, temperature, noise and light levels, vibration, time of shifts and possible extensions, irregular shift rotation patterns and physically or mentally demanding work (WorkSafe BC). Each one of those factors influence the type of fatigue risk which is categorized in three ways (SKYbrary):

- Transient fatigue (caused by extreme sleep restriction or extended hours awake within 1 or 2 days)
- Cumulative fatigue (caused by repeated mild sleep restriction or extended hours awake across a series of days)
- Circadian fatigue (caused by irregular late night work hours)

Overview of Current Research by Transport Canada. Current amendments to the AERONAUTICS ACT for flight crew duty regulations were mandated based on the 91 investigations the Transportation Safety Board of Canada conducted up from 1990 to 2018 in which 29 occurrences in the railway industry were credited to fatigue, 28 in the marine sector and 34 in aviation (Transport Canada). The findings were significantly concerning that an international forum was held to focus on better recognition and management of fatigue. The outcomes of the forum, besides the amendments, were an acknowledgement of the significance of fatigue risk and hazards as well as a focus on how to correct the vulnerabilities employees

face to accumulate fatigue. In particular, they highlighted the only effective fatigue management and reduction of such risks "can only be accomplished through generalized and sustained awareness training, and implementation of fatigue management plans that encourage both employers and employees to take responsibility to ensure that no one becomes a casualty of fatigue" (Transport Canada). In part of their call to action to employers to acknowledge and address fatigue, research was and is still being conducted extensively for more information on recognition and mitigation of such risks. For flight crew, Transport Canada highlighted as mentioned in the introduction a number of fatigue hazards and the possible performance implications, but each one was paired with possible mitigation measures as part of their mandated fatigue risk management system processes (FRMS).

Overview of Fatigue Risk Management Programs

Fatigue risk management programs are set in place to address the sources of fatigue and prevent fatigue hazards.

Meaning of fatigue risk management. What then is the meaning of fatigue risk management? According to WorkSafe BC, it is a three-step process in which we need to:

1. Identify workplace activities, situations or tasks where being fatigued could increase the risk of harm
2. Assess the level of risk associated with each of the identified hazards and how those risks are increased when workers are fatigued

3. Implement control measures such as developing shift schedules and rotations that minimize the effects of fatigue or provide education and training to workers to reduce the potential for harm

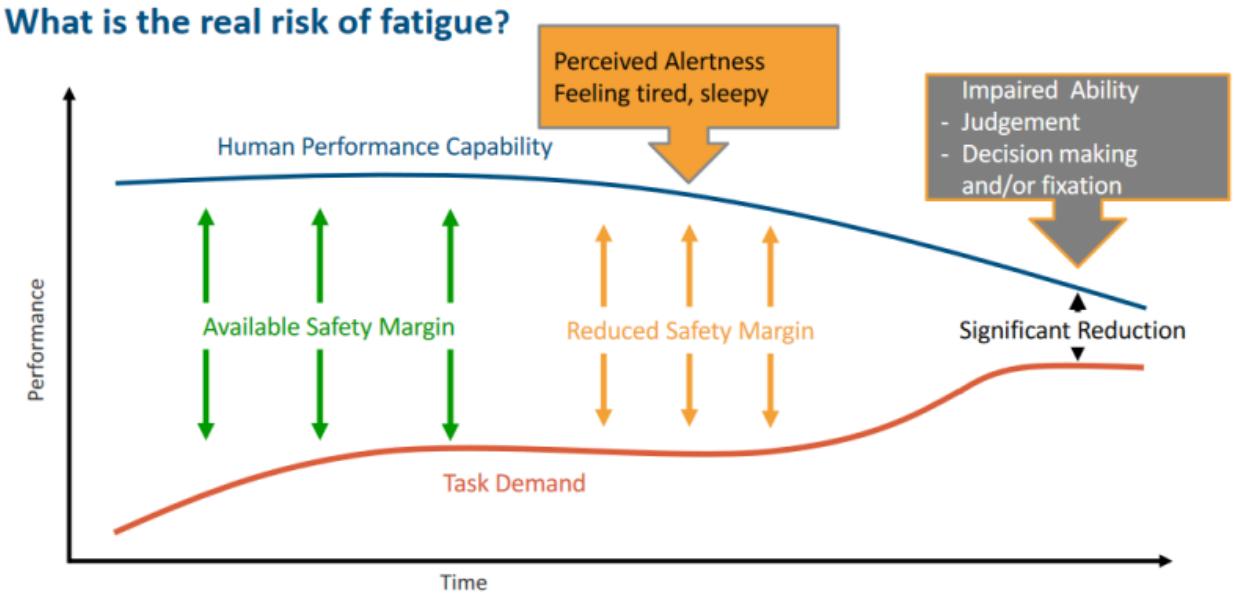
Current regulations on aviation industry by Transport Canada for fatigue risk. In the aviation industry, Transport Canada has enacted a program based on the three step process and based on the findings and data from the program, revised flight and duty-time limitation regulations in the AERONAUTICS ACT (SOR/-2018-269). The regulations included a few specifics that relate to the risks seen in local WestJet agents: shift irregularity (inconsistent work times and irregular work hours), break irregularity (inconsistent and irregular break times) and long travelling times.

Consequences on fatigue risk without a proper management program. Transport Canada made revisions and is still currently working on a new publishment of regulations relating to fatigue risk as they identified fatigue as a "contributing factor in 15 to 20% of aviation accidents". The unfortunate fact is that there is also growing evidence that flight crew fatigue is prevalent in this industry, and yet the consequences can be fatal for both flight crew and passengers. Specifically, fatigue has been accounted for two significant accidents in the last 10 years within Canada: October 14, 2005 where an aircraft crashed from an attempt to take off from Halifax International Airport and seven crew members were killed, and January 14, 2011 where an Air Canada aircraft dropped 400 feet in altitude and then rose 800 feet before lowering back to its assigned attitude that results in injuries to 16 people. Many more additional incidents have also been accredited with a factor of fatigue. Some other examples of consequences of fatigue (Transport Canada):

1. Missed radio calls
2. Inaccurate flying
3. Routine tasks being performed inaccurately or even forgotten
4. Falling asleep
5. Poor decision making
6. Slow reaction to changing situation
7. Loss of situational awareness
8. Forgetfulness

Some studies have also highlighted the same issues of impaired ability and judgement as well as decision making (seen in Figure 1) with an increasing workload as time extends in a worker's shift (Tritschler, 2016).

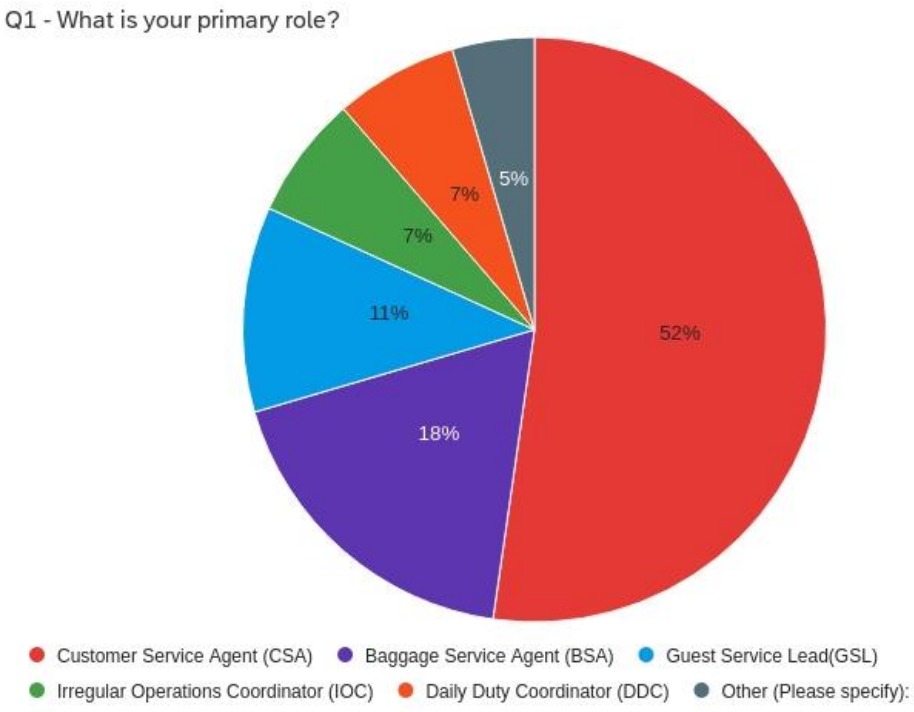
Figure 1: *Fatigue Risk on Work Performance Over Time*



Overview of fatigue risk in WestJet Agents

A survey of about 20 questions were given to local YVR WestJet agents in which there were 47 participants, a majority who were CSA agents but also included BSAs, GSLs/OLs, IOCs and DDCs (Figure 2). Out of the 47 participants, 17 survey participants had relief roles (about 40% of the total)

***Figure 2**: Survey Question 1 - What is your primary role?*



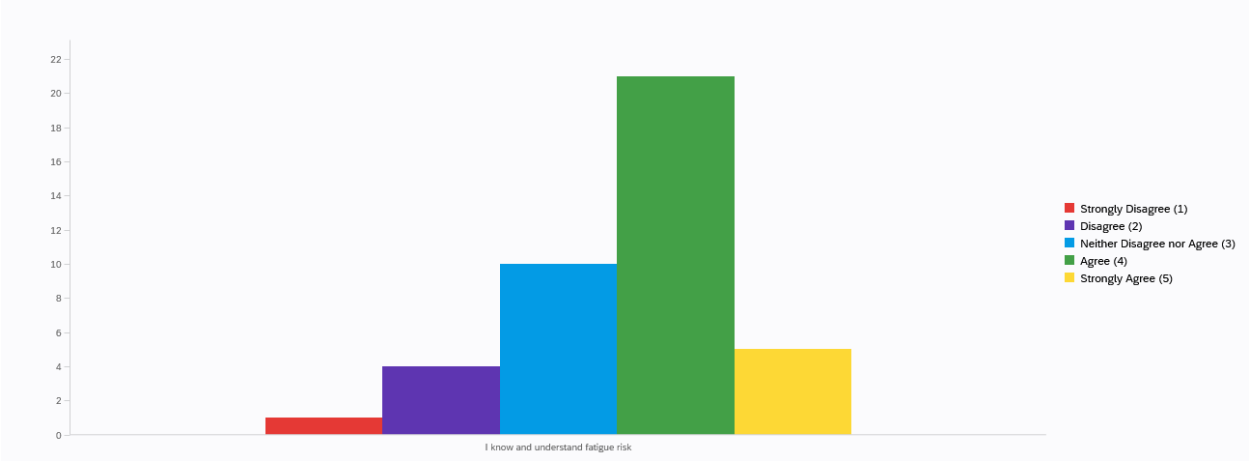
An interview was also conducted with 4 agents that consisted of 1 CSA (BSA relief), 1 OL/GSL, 1 IOC (CSA, BSA relief) and 1 BSA.

Survey and Interviews Analysis from WestJet Agents. The findings from the survey were concerning in regards to the many factors found as potential fatigue risks and

hazards as well as a significant disbelief in WestJet as a company to recognize and acknowledge fatigue risk.

Current understanding of fatigue risk at the local airport. As highlighted in Figure 3, fatigue was a relatively understood concept by most agents, but from the short interviews, agents did not feel that fatigue was applicable to even though there were many situations of all three types of fatigue that occurred. Specifically circadian fatigue was especially common in BSAs and CSAs who work the overnight shifts and/or are the last night agents scheduled to cover the last flights arriving into Vancouver (specifically for WS724, WS730 and WS729 and WS731).

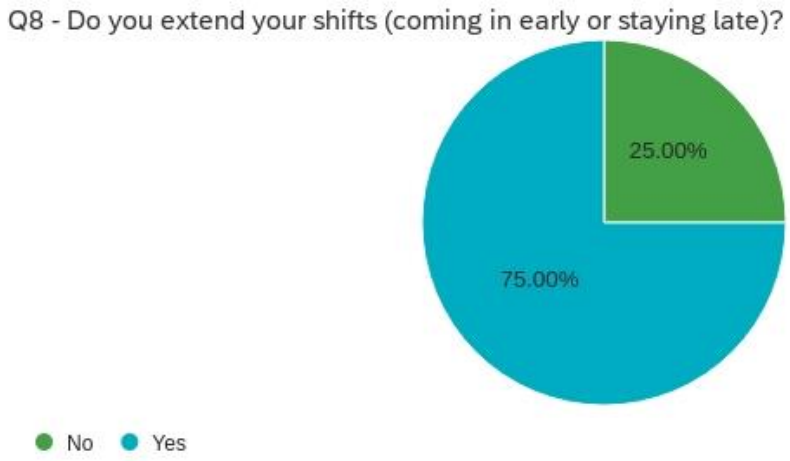
Figure 3: *Survey Q16.3 - "I know and understand fatigue risk"*



Current areas identified as a potential source of fatigue risk. From the research conducted by Transport Canada as well as other workplace organizations such as WorkSafe BC and Health BC, certain areas of concern have shown as potential sources of fatigue risk. In particular, two main areas of focus came up from the survey and

interview results: scheduling of irregular break times and shift extensions caused by irregular operations.

Figure 4: *Survey Question 8 - Do you extend your shifts?*

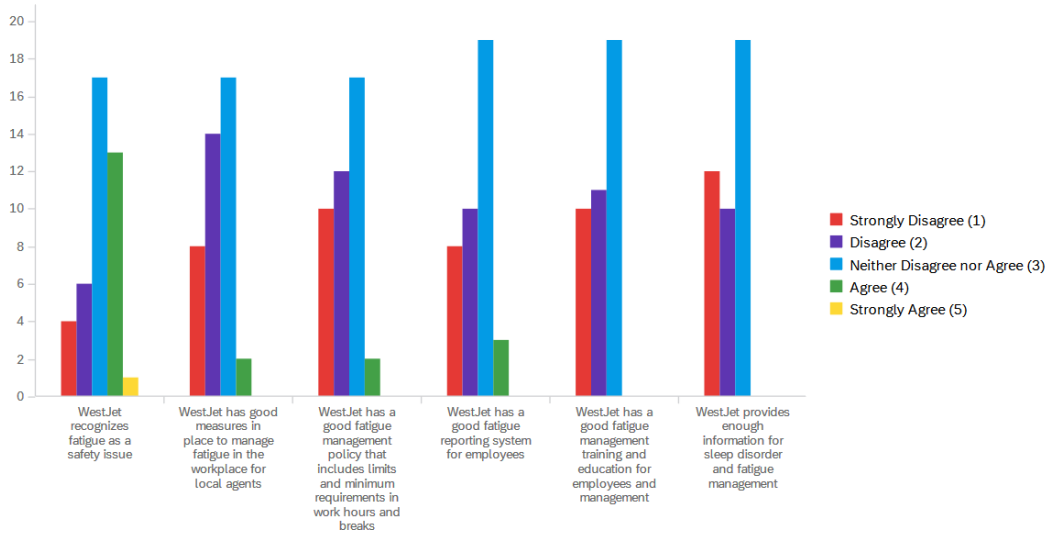


75% of survey participants responded that they extend their shifts outside of what was scheduled to cover operational needs (Figure 4). The most drastic example of a shift extension was from the interview with a BSA who mentioned he had to stay beyond the 12 hours of his shift due to the irregular disruption of a flight. There was no support he could be given as no contact was available between a BOL or DM, and as the last agent there on shift who could operate as a BSA, he had to stay beyond 12 hours, extending an extra 3 hours to a total of a 15 hour shift. He was also scheduled to work the day after, leaving only less than 10 hours before the start of his next shift, but the BOL on the morning shift did push back the start of his next shift to accommodate at least a full 10 hour break. As a context, extending beyond 12 hours was not a common yet a not rare occurrence. Other CSAs with BSA relief roles have mentioned they stay beyond 12 hours to cover any irregular flight operations.

Another key common issue that have come up in all four interviews is that there is no available support when the agents must extend their shift for operational needs, especially when combined with another common issue of irregular break times, also due to operational needs. Agents report having breaks scheduled but then their breaks are moved from an earlier or delayed arrival of a flight, and it was far too common to see is their breaks scheduled near the beginning or end of their shift, even in an 8 hour shift, which sometimes has caused more than 7 hours of consecutive work 30 minutes after they started their shift, until they identify it to DDC. Even then, after identification of the issue, DDC may reject their request as DDC states as it is "operationally needed" of them.

Along with the non-supportive environment for agents' wellbeing, local WestJet agents do not believe they have a good supportive system (Figure 5). Out of the 47 respondents, the majority of the responses in believing that WestJet was supporting the agents on the floor was either not in disagreement or agreement, or just in disagreement. Only a few agreed that WestJet has good measures in place to manage fatigue, and more agreed that WestJet has a lacking fatigue program.

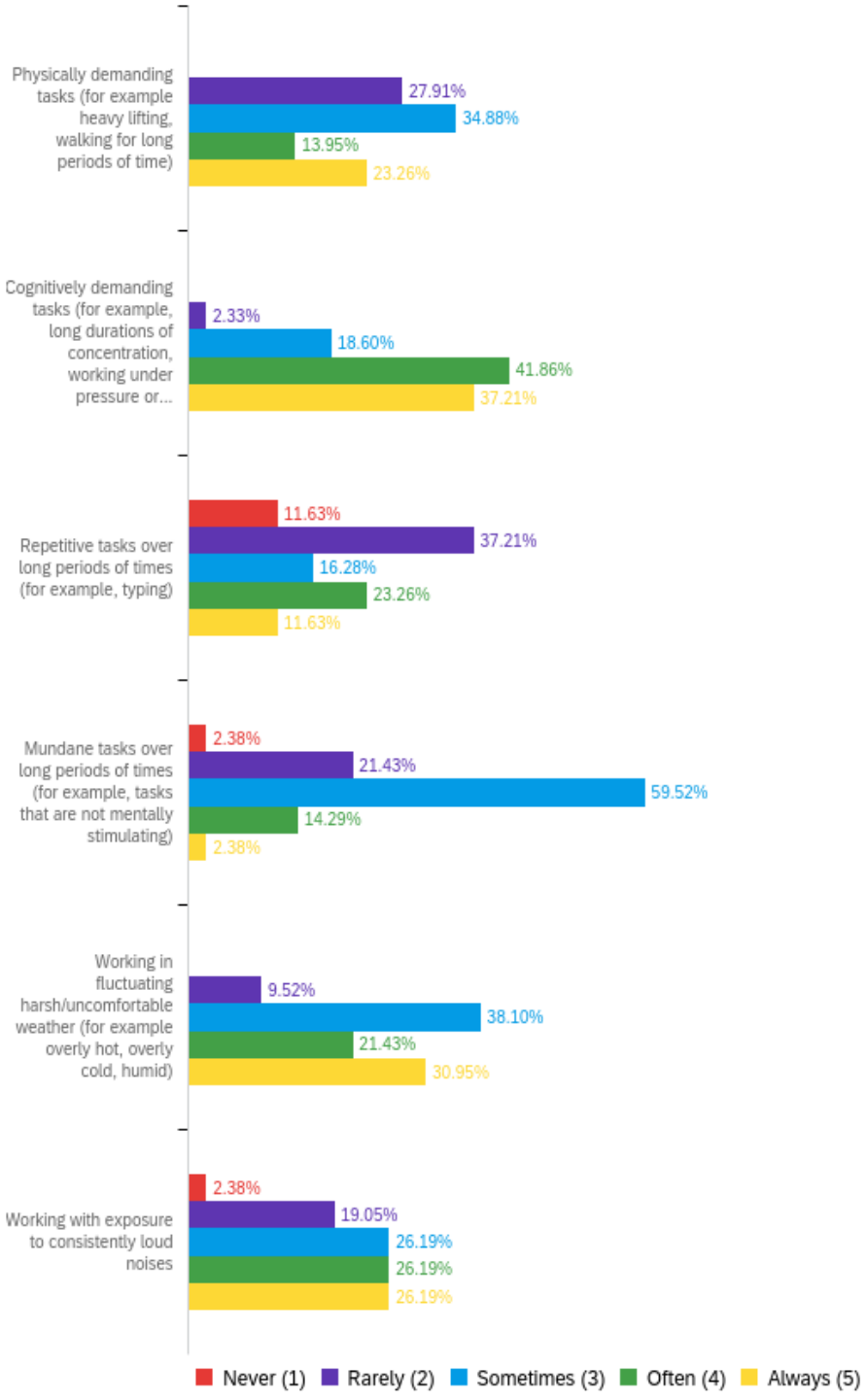
Figure 5: *Survey Question 17 - Matrix Answers on WestJet and its Current Health Program Relating to Fatigue*



This bears a significant concern especially when sources of fatigue risk as highlighted in the section “Sources of fatigue risk” were quite common (Figure 6). An overwhelming majority of agents say they have completed physically and cognitively demanding tasks, mundane tasks over long periods of times, working in fluctuating harsh/uncomfortable weather and with exposure to consistently loud noises.

As Transport Canada highlighted in its research, fatigue can accumulate and cause potential severe consequences that include “an increased risk of accidents” (Transport Canada) if these identified fatigue risks are not addressed and mitigated.

Figure 6: *Survey Question 14 – Matrix Answers on Current Tasks Completed in a Shift*



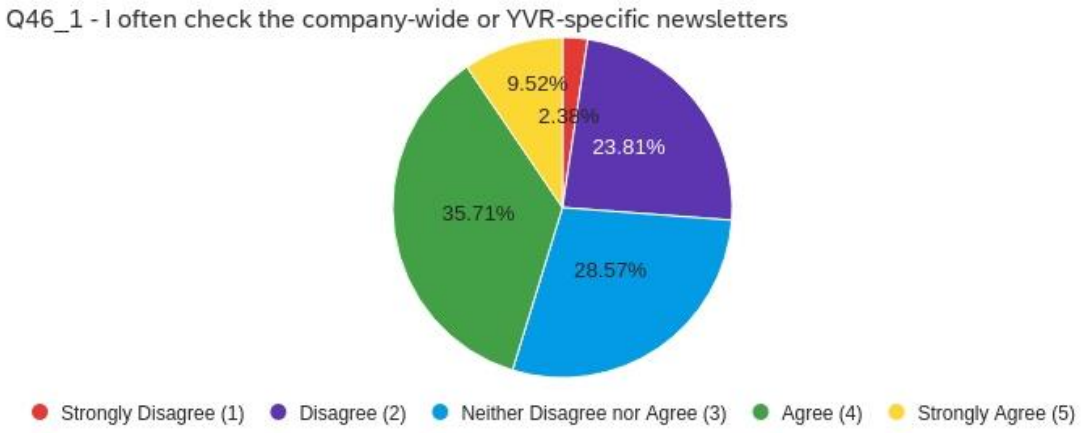
Recommendations for Initializing a Fatigue Risk Management Program

As highlighted with the three-step process by WorkSafe BC on fatigue risk management, several areas of activities and tasks have been identified as a potential cause for fatigue and increase risk. The next step should be to implement processes or improve on current procedures to mitigate fatigue risk.

Initializing steps for creating fatigue risk management program. There are two main areas of focus that could be used as initializing steps for a fatigue risk management program: ways to promote awareness for fatigue risk and ways to provide resources.

Areas to promote fatigue risk awareness. Fatigue risk awareness remains exceptionally low, especially when only 1 out of the 47 respondents have answered that they know about fatigue risk management programs. To raise awareness, one possible step to take is to address fatigue risk and its hazards in its own column in the monthly newsletters (similar to the safety shares at the beginning of the newsletters), given that at least 45% of the participants have responded they keep up to date with company-wide or YVR-specific newsletters (Figure 7).

Figure 7: *Survey Question 16.4 - "I often check the company-wide or YVR-specific newsletters"*



Another feasible option is to recognize fatigue risk and address fatigue risk management during mandatory WestJet YVR meetings held every quarter, much like the mental health presentation. The Health and Safety Committee should also be reviewing the protocol for fatigue risk along with its meetings on mental health awareness.

Areas to provide resources. There are a few areas this could be improved on:

1. Shift work schedules, especially for consecutive work days need to be constructed to have the least amount of possible impact off duty especially for the scheduling to be changed so regularly and to account for sudden delays
    1. An option to consider is to have relief roles that are already scheduled every new schedule to cover operational needs considered to cover for operation irregularities or be on call
    2. DDC should also be trained in the program for fatigue management that is already in place for WestJet airport operators who schedule for flight crew

to make sure that they are able to manage over agents and scheduling of breaks (even in times of operational irregularities)

2. Enough support needs to be on the floor to be able to actively support agents (which includes IOCs and OLs who work in the office but have long periods of downtime)

Current limitations for provided solutions. There are a few limitations for the proposed solution for these factors:

1. Beyond the fatigue program set up by the company, fatigue risk management also depends on the individual to develop personal strategies which may be hard to those who have other commitments or cannot spare the time to rest for their livelihood
2. Just like how Transport Canada relies on data and research for the current regulations and mandates on fatigue risk to the aviation industry for flight crew, more data and research on the fatigue levels and risk assessments in ground agents are needed for further and more specified recommendations as this study was based on a small and localized sample size (what may pertain to flight crew may differ for ground crew, given their different operations)
3. There were a significant disproportional amount of agents working in the evening that participated in the survey (over 60%)
4. The impact of the pandemic should also be considered as a factor that may have influenced the survey and interview participants due to the factor of limitations on

agents being recalled and the changes based on the pandemic which include certain roles being removed and changed and with a shrunken workforce

CONCLUSION

Summary and Overall Interpretations of Findings

Fatigue risk is a serious issue that should be looked at for airport agents on the floor, beyond what is mandated for flight crew. The overall data from the conducted survey and interviews have highlighted two key areas of improvement for the wellbeing of local WestJet agents at YVR and to manage fatigue risk among those working on the floor: break and shift time irregularity and tasks prone to fatigue risk.

Summary of Recommendations

The recommendations provided highlight certain areas of improvement and the first possible initialization steps for a fatigue management program, which include:

- Increase awareness of fatigue risk
    - in company wide meetings
    - in monthly newsletters
    - in meetings of the Health and Safety Committee
- Provide resources for agents on the floor by
    - considering relief roles to cover for operational needs
    - training DDC in the fatigue management program as airport operators

- having IOCs and ICs assigned to work at the office support ground agents during operational downtime

Final Comments

Fatigue risk is a serious concern but with enough recognition and prevention, it can be a manageable hazard. This report was written to highlight the dangers of fatigue and its possible aversive and serious consequences for WestJet ground agents based on the research of Transport Canada and the findings of the survey and interviews conducted. A few recommendations to mitigate such risks were provided to support agents on the floor which can help to increase the wellbeing of individuals and safety of the workplace.

Appendix A: Fatigue Risk Survey Questions

Start of Survey

Instruction
Hello! I am an undergraduate student at UBC engaged in a technical writing project.

The purpose of this survey is to obtain primary data for an analysis and investigation that aims to provide recommendations for initializing a fatigue risk management program for WestJet airport agents at the Vancouver International Airport. The final formal report will be addressed to the General Manager and the senior management team.

Together with the research available on Transport Canada for fatigue risk, the data I gather from this survey will serve the ultimate purpose of providing recommendations to decrease fatigue risk and promote a healthier alternative for staff management.

The survey contains around 20 questions, and it should take about 15 minutes of your time. Your responses are completely voluntary and anonymous (you may skip any questions that you would like to not answer).

Thank you, I appreciate your generous participation in my survey.

Q1 What is your primary role?

- ○ Customer Service Agent (CSA)
- ○ Baggage Service Agent (BSA)
- ○ Guest Service Lead(GSL)
- ○ Irregular Operations Coordinator (IOC)
- ○ Zone Manager (ZM)
- ○ Daily Duty Coordinator (DDC)
- ○ Other (Please specify): _____

Q2 Do you have relief roles?

- ○ Yes
- ○ No

Display This Question:

If Do you have relief roles? = Yes

Q2.5 What are your relief roles? (Pick all that apply, excluding your primary role!)

- ☐ CSA
- ☐ BSA
- ☐ GSL
- ☐ IOC
- ☐ ZM
- ☐ DDC
- ☐ Other (Please specify): _____

Q3 Please indicate if you are:

- ○ Casual
- ○ Part-time
- ○ Full-time

Q4 How many days are you currently scheduled to work per week?

_____

Q5 On average, how many hours are you scheduled to work per day for this current period?

- ○ Less than 5
- ○ 5-8
- ○ 9 or more
- ○ Other (Please specify) _____

Q6 What was the longest shift worked in the previous scheduling period?

_____

Q7 What time periods are your shifts usually in?

- ○ Mornings
- ○ Afternoons
- ○ Evenings
- ○ Overnights

Q8 When are your lunch breaks usually scheduled?

- ○ Around the middle of my shift
- ○ Around the beginning of my shift
- ○ Around the end of my shift
- ○ Changes depending on my duties of the day
- ○ Other (Please specify): _____

Q9 Do you extend your shifts (coming in early or staying late)?

- ○ Yes
- ○ No

Display This Question:

If Do you extend your shifts (coming in early or staying late)? = Yes

Q9.1 How often do you extend your shifts?

- ○ Always
- ○ Often
- ○ About half the time
- ○ Sometimes
- ○ Never

Display This Question:

If Do you extend your shifts (coming in early or staying late)? = Yes

Q9.2 How many hours on average do you extend for?

- ○ Half an hour - 1 hour
- ○ 1 hour and a half - 2 hours
- ○ 3 hours or more

Q10 Where is your primary work area?

- ☐ Domestic
- ☐ International
- ☐ Transborder

Q11 How long is your commute to work?

- ○ At most half an hour
- ○ More than half an hour to 1 hour
- ○ More than 1 hour to 2 hours
- ○ More than 2 hours

Q12 How many hours of sleep do you get on average per day?

- ○ Less than 5 hours
- ○ 6-8 hours
- ○ 8+ hours

Q13 Do you have other commitments (like another job, weekly volunteer activities, sporting groups, etc.)?

- ○ Yes
- ○ No

Display This Question:

If Do you have other commitments (like another job, weekly volunteer activities, sporting groups, et... = Yes

Q13.5 What are the other commitments that you have? (For example, another full-time/part-time job, family-related matters or volunteer activities)

_____

_____

_____

_____

Q14 The following questions are about completing tasks over a period of time. Please indicate on a scale of 1-5, where 1 is never and 5 is always, of when you have completed the following tasks:

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)	Not Applicable
Physically demanding tasks (for example heavy lifting, walking for long periods of time)	○	○	○	○	○	○
Cognitively demanding tasks (for example, long durations of concentration, working under pressure or tight timelines)	○	○	○	○	○	○
Repetitive tasks over long periods of times (for example, typing)	○	○	○	○	○	○
Mundane tasks over long periods of times (for example, tasks that are not mentally stimulating)	○	○	○	○	○	○
Working in fluctuating harsh/uncomfortable weather (for example overly hot, overly cold, humid)	○	○	○	○	○	○
Working with exposure to consistently loud noises	○	○	○	○	○	○

Q15 The following questions are on work shifts. Please indicate on a scale of 1-5, where 1 is never and 5 is always of, when you have:

	Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)	Not Applicable
Completed tasks in a safe and timely manner	○	○	○	○	○	○
Called in sick for an illness (physical or mental ailment)	○	○	○	○	○	○
Called in sick for fatigue	○	○	○	○	○	○
Submitted safety reports for fatigue	○	○	○	○	○	○
At least a period of 10 hours or more in-between consecutive shift work days	○	○	○	○	○	○
Worked overnight	○	○	○	○	○	○
Picked up P1s (over the previous scheduling period)	○	○	○	○	○	○
Have 1-2 days off for the work week	○	○	○	○	○	○
Shifts are worked as planned/scheduled	○	○	○	○	○	○
Shifts are worked as my primary role	○	○	○	○	○	○

Q16 Please indicate on a scale of 1-5, where 1 is Strongly Disagree and 5 is Strongly Agree, for the following statements:

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)	Not Applicable
I am comfortable talking to a manager about when I need a break	○	○	○	○	○	○
My work schedule allows me to get the proper rest I need to function safely on the job	○	○	○	○	○	○
I know and understand fatigue risk	○	○	○	○	○	○
I often check the company-wide or YVR-specific newsletters	○	○	○	○	○	○
I keep up to date on the current health-related programs provided by WestJet	○	○	○	○	○	○

Q17 The following questions are on current work programs provided by WestJet. Please indicate on a scale of 1-5, where 1 is Strongly Disagree and 5 is Strongly Agree, for the following statements:

	Strongly Disagree (1)	Disagree (2)	Neither Disagree nor Agree (3)	Agree (4)	Strongly Agree (5)	Not Applicable
WestJet recognizes fatigue as a safety issue	○	○	○	○	○	○
WestJet has good measures in place to manage fatigue in the workplace for local agents	○	○	○	○	○	○
WestJet has a good fatigue management policy that includes limits and minimum requirements in work hours and breaks	○	○	○	○	○	○
WestJet has a good fatigue reporting system for employees	○	○	○	○	○	○
WestJet has a good fatigue management training and education for	○	○	○	○	○	○

employees and management						
WestJet provides enough information for sleep disorder and fatigue management	○	○	○	○	○	○

Q18 Do you know about Transport Canada's Fatigue Risk Management Program for flight crew?

○ Yes

○ No

Q19 Are there any other feedback you would like to provide if a fatigue risk management program was started locally at YVR?

_____

_____

_____

_____

Q20 Do you have any other concerns, questions or any other kind of feedback to provide?

_____

_____

_____

_____

End of Survey

Appendix B: Fatigue Risk Interview Questions

Interview Questions

1. What do your current shifts look like?
2. On average, how many hours are you scheduled to work? On average, what are the time periods you work (usually at night, early mornings, afternoon, etc.)?
3. On average, how many hours are you actually working (including shift extensions, P1s (when agents are called to ask if they could work on their day off))?
4. How much sleep would you say you get on average per day?
5. Do you drive or bus? How much time, on average, are you spending to commute to the airport for work?
6. Are there any particular differences from working a job with non-traditional hours you noticed from your day to day activities?
7. What duties are you expected to do during your shift? What does a shift look day to day for you?
8. Are there any shift irregularities that happen quite often? What kind of irregularities would you expect on a day to day basis?
9. Do you have breakfast/lunch/dinner scheduled around the same time during your shift?
10. How much water do you consume on a regular basis during a shift? How much caffeine?
11. How often do your duties get switched around (especially if you have a relief role, of having the ability to take on another position to help relieve short manpower, how often do you get pulled away from your original scheduled role)?
12. Would you consider yourself to be working in a hectic environment?
13. What do you think it means to be at risk for fatigue? What duties do you think may impact fatigue?
14. Do you have any extracurricular activities (such as sports, volunteering, schooling)? Do you travel a lot with the benefits given by WestJet?
15. Do you know about Transport Canada's fatigue risk management for flight crew? Would you see it being possible to implement such rules for ground crew?
16. Do you know who to go to or where to look for resources and guidance on stress and self-management?
17. Are there any other comments or feedback you would like to give if a fatigue risk management was started at WestJet locally?

Additional Questions for Irregular Operation Coordinator and Operation Lead:

1. How many agents are you looking over on a day to day basis?
2. How often do agents look for help from you?
3. What are the current resources you are able to give to agents on the floor?
4. Do you work mainly on the floor or inside the office during your shift?
    a. If you work mostly in the office, do you often head out or stay inside for the entirety of your shift?
    b. If you work on the floor, how often are you resting from supporting other agents working on the floor?

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