

**"CLEARED FOR
TAKE OFF"**



STRESS IN

AIR TRAFFIC CONTROL

IKE UDONSI
KIA GHARIBI
JESSICA PARZYSZEK
AMANDA COSENTINO

POLL EVERYWHERE



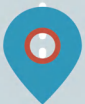
TEXT
IKUD033

TO

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ONCE TO JOIN

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22



AGENDA



**GENERAL DEFINITION
OF WORKPLACE
STRESS**



**GENERAL OVERVIEW
OF ATC**



**GENERAL RESEARCH
BEHIND WORKPLACE
STRESS**

**SOURCES OF STRESS,
AMPLIFY STRESS &
CONSEQUENCES OF THE
STRESS IN ATC**



**INTERVENTION OF
GOVERNMENT POLICIES &
REGULATIONS ON THE
INDUSTRY**



**WAYS TO COMBAT
STRESS**



**RECOMMENDATIONS
FOR THE FUTURE**



STAGES OF STRESS



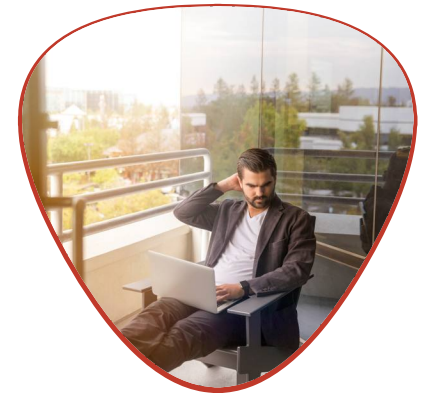
STRESSOR



STRESS



STRAIN



STRESSORS



JOURNAL OF ORGANIZATIONAL BEHAVIOUR 5 CATEGORIES OF STRESSORS

1

FACTORS
INTRINSIC
TO JOB

2

ROLE IN
ORGANIZATION

3

CAREER
DEVELOPMENT

4

RELATIONSHIPS
AT WORK

5

ORGANIZATIONA
L STRUCTURE



WHAT IS A STRESSOR?

Stressors are objectively verifiable events that occur outside a person that have potential to cause stress.

STRESS IS PRECEDED BY A STRESSOR

WHAT IS STRESS?



TEXTBOOK

Stress is an individual's internal response to, or evaluation of stressors.



CANADIAN CENTRE FOR OCCUPATIONAL HEALTH AND SAFETY

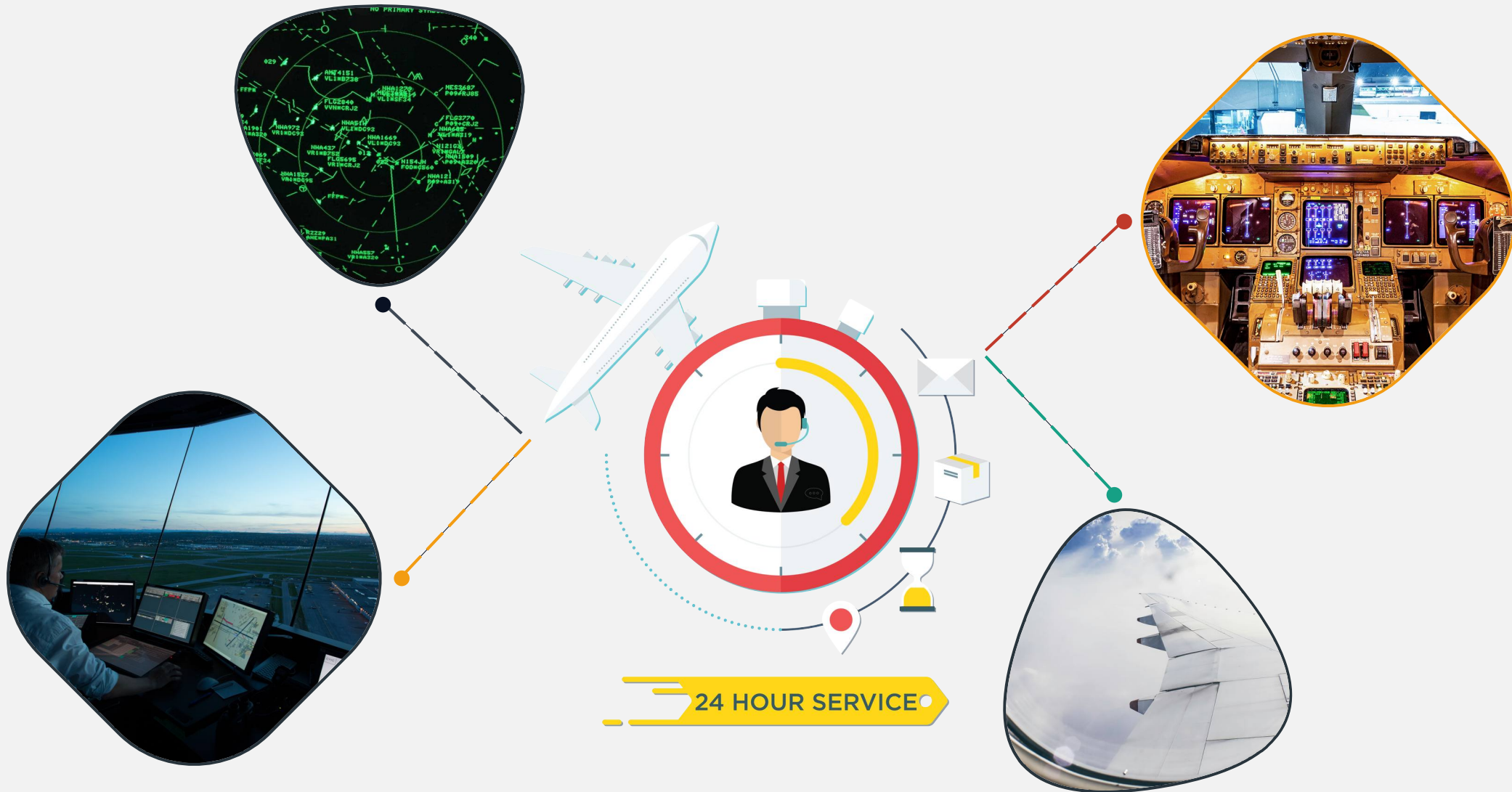
"Workplace stress" is the harmful physical and emotional responses to a conflict between job demands on the employee and the amount of control an employee has over meeting these demands.



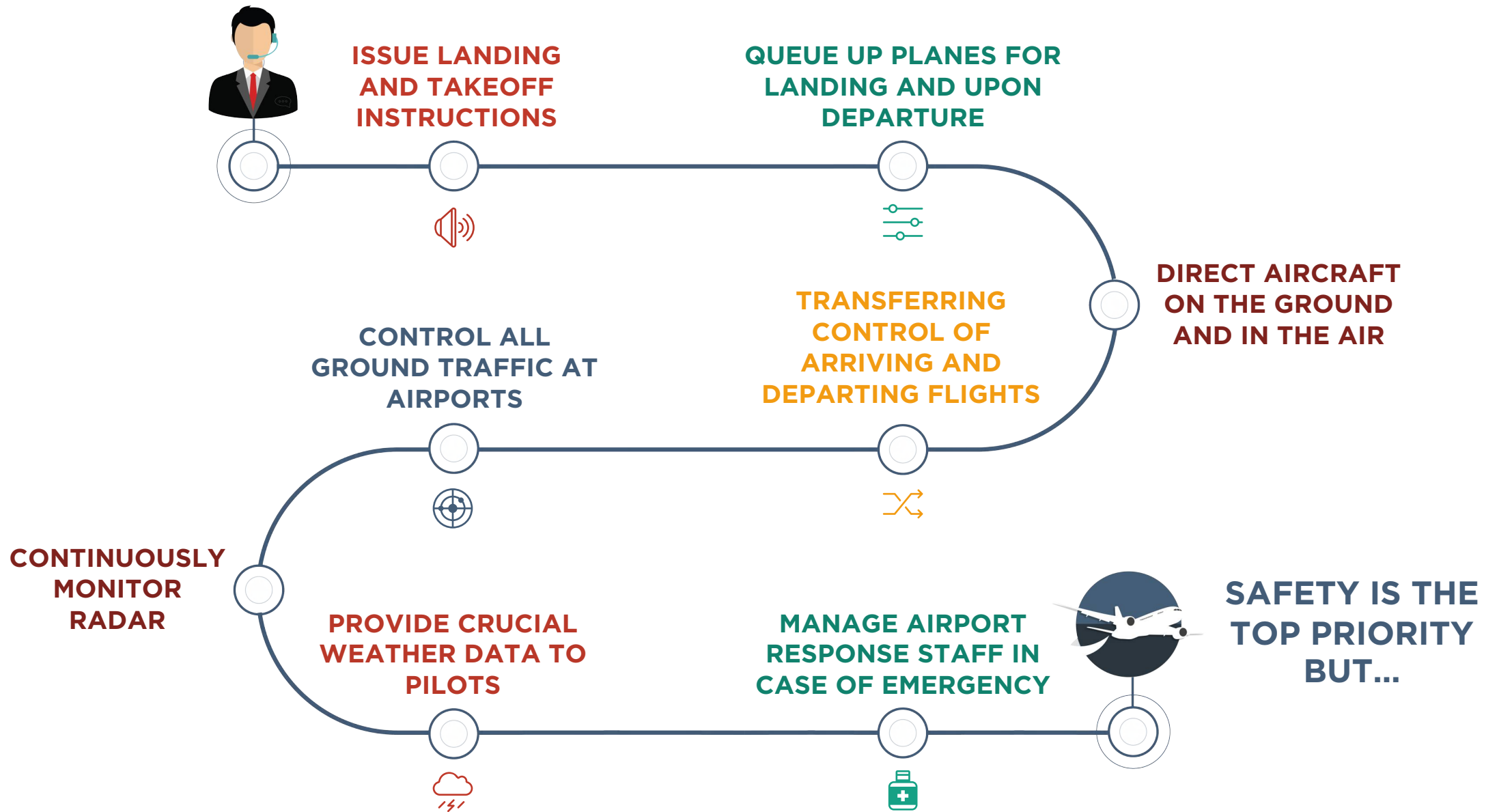
STRAIN is the result of **STRESS** and can be separated into categories. **4**



WHAT IS AIR TRAFFIC CONTROL?



DUTIES OF AN AIR TRAFFIC CONTROLLER



CATEGORIES OF AIR TRAFFIC CONTROLLERS



TOWER CONTROLLER

Monitor taxiways
and runways

Direct other ground traffic
and airport crews

Give clearance for takeoff
and landing

Are stationed in airport-
specific control towers



Below 1,000ft and within
5 nautical miles of airport

ARRIVAL & DEPARTURE CONTROLLER

Give clearance to enter
controlled airport space

Monitor flight paths
through radar

Maintain minimum
separation distances
between aircrafts

Airport-specific control
towers



Below 10,000ft and within
controlled airspace surrounding
20-30 nautical miles of airport

EN ROUTE CONTROLLERS

Monitor aircraft during
the majority of the
flight

Ensure the aircraft is
following high altitude
flight plan

Align aircraft
accordingly to enter
into other en-route
traffic control centers
across the country as
required



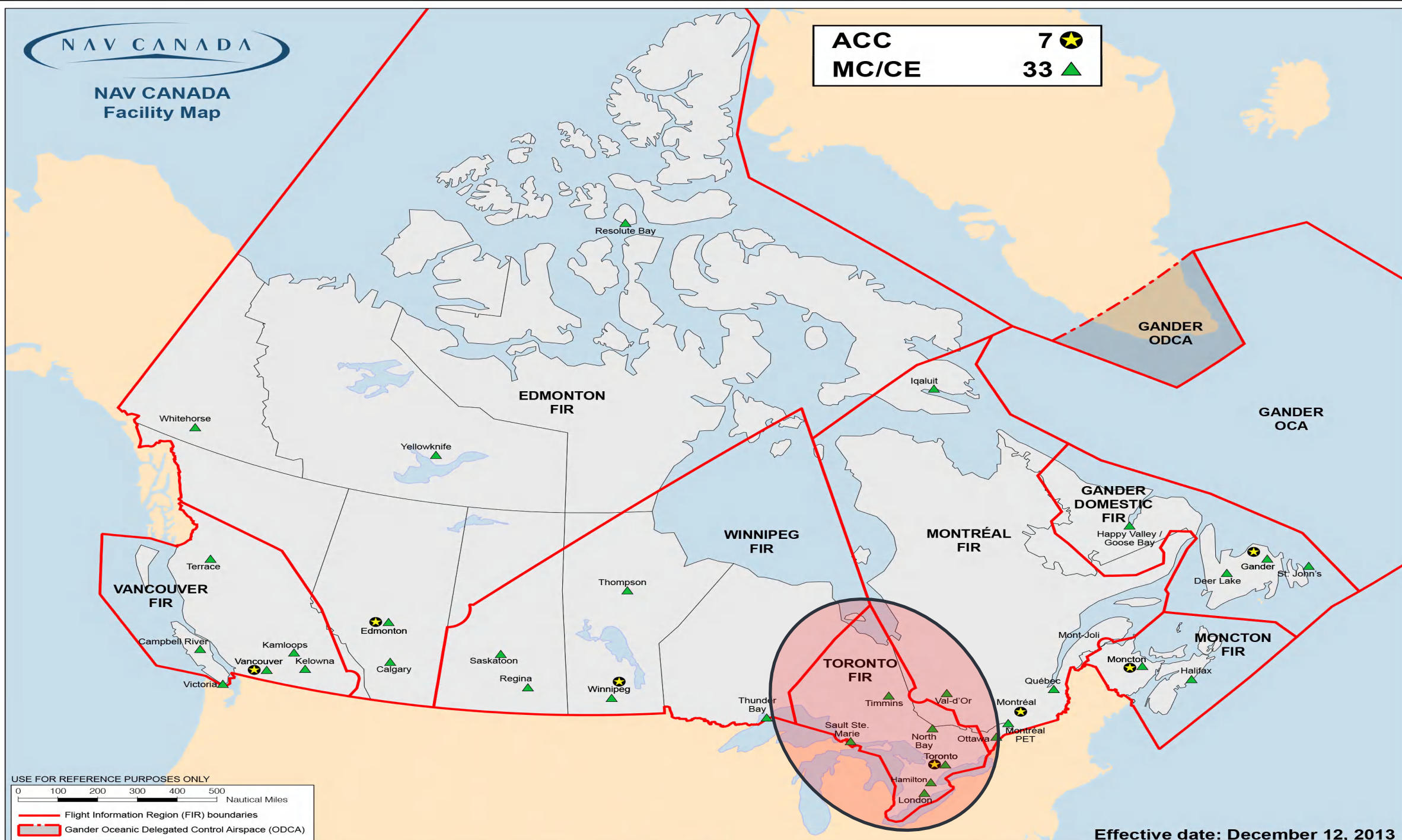
Above 10,000ft - 30,000ft and
outside
of airport airspace





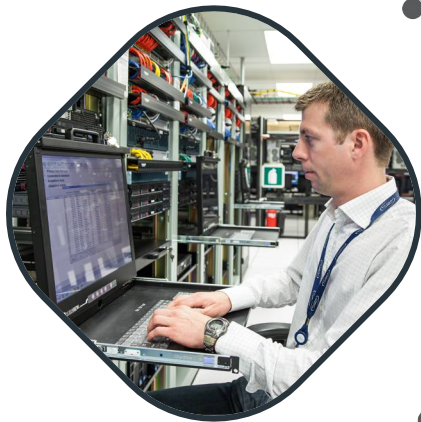
NAV CANADA
Facility Map

ACC	7
MC/CE	33



Effective date: December 12, 2013

OUR INDUSTRY EXPERT



DAVID PURKIS
Shift Manager
Stationed at Pearson



GREW UP IN TORONTO



WENT TO SENECA FOR AVIATION, BECAME A FLIGHT OFFICER



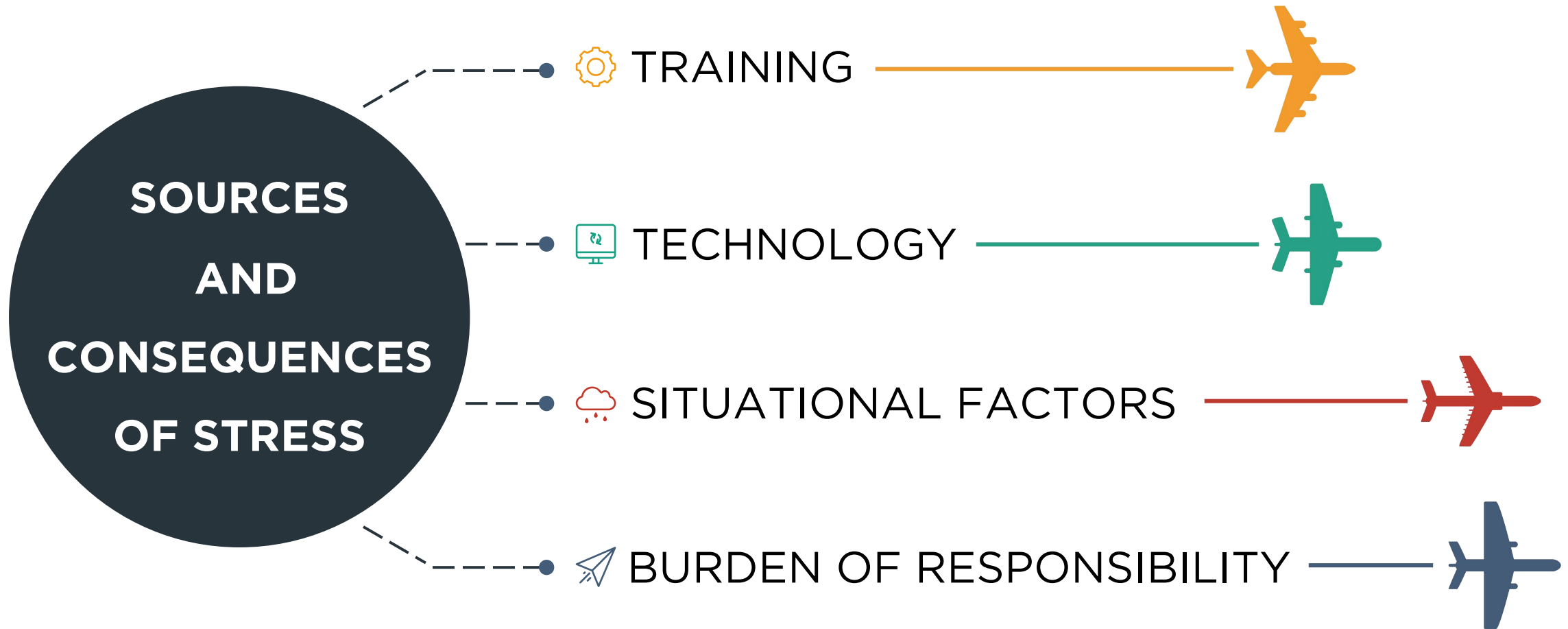
LATER BECAME A FLIGHT INSTRUCTOR



APPLIED TO NAVCAN IN 2005



PROMOTED TO SHIFT MANAGER FOR ONTARIO REGION IN 2016





“THE MOST STRESSFUL PART OF BECOMING AN AIR TRAFFIC CONTROLLER”



RECRUITING

Managers must select candidates with competencies fit for the role.



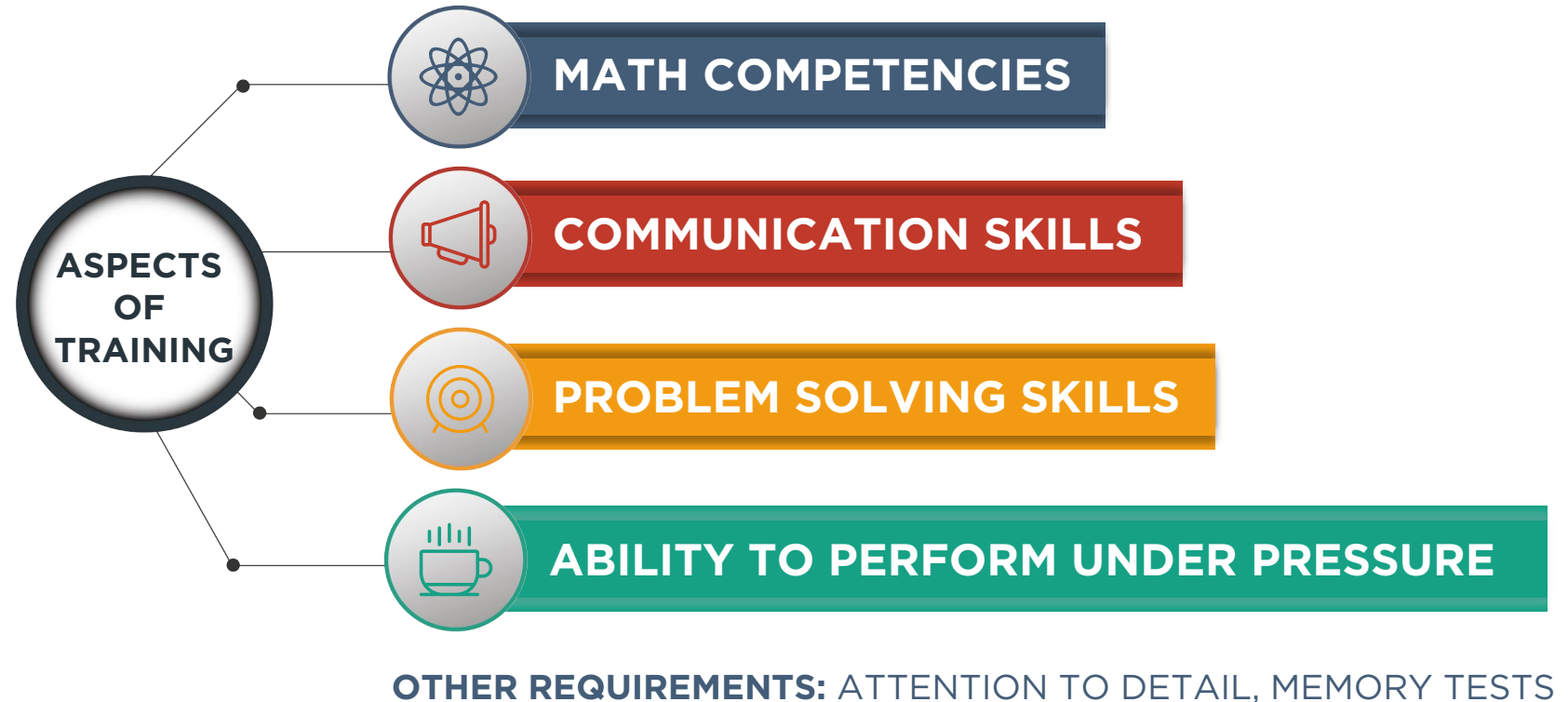
PRE-SCREENING

Competencies are evaluated through tests



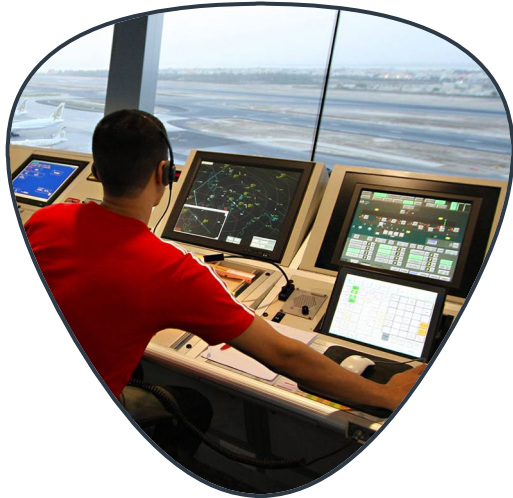
2-YEARS TRAINING

6 months of general training
4 months of simulator training
1-year training on operations floor accompanied by an instructor.



“ONLY **37%** OF APPLICANTS ARE SUCCESSFUL”

TECHNOLOGY



**MORE
SOPHISTICATED
TECHNOLOGY**



**GREATER
WORKLOAD**



**EXPECTATION
TO DO MORE
IN LESS TIME**

SITUATIONAL FACTORS



SEVERE WEATHER

RAIN WITH THUNDERSTORM



IN-FLIGHT EMERGENCIES

FIRE ON BOARD, AIRCRAFT DAMAGE



TRAFFIC RUSH HOURS

9:00AM, 5:00PM, 7:00 PM, 12:00AM

BURDEN OF RESPONSIBILITY

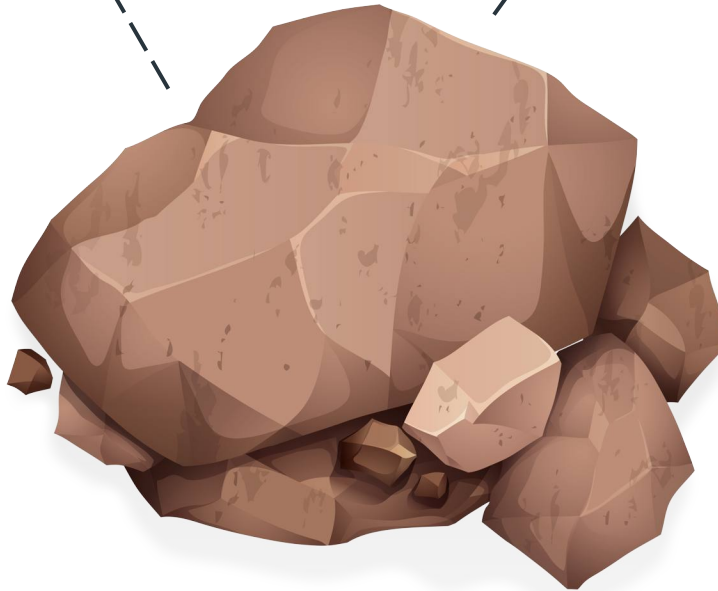


Most common in occupations in which small errors can have disastrous consequences.

Even more pronounced if these consequences can jeopardize human life.

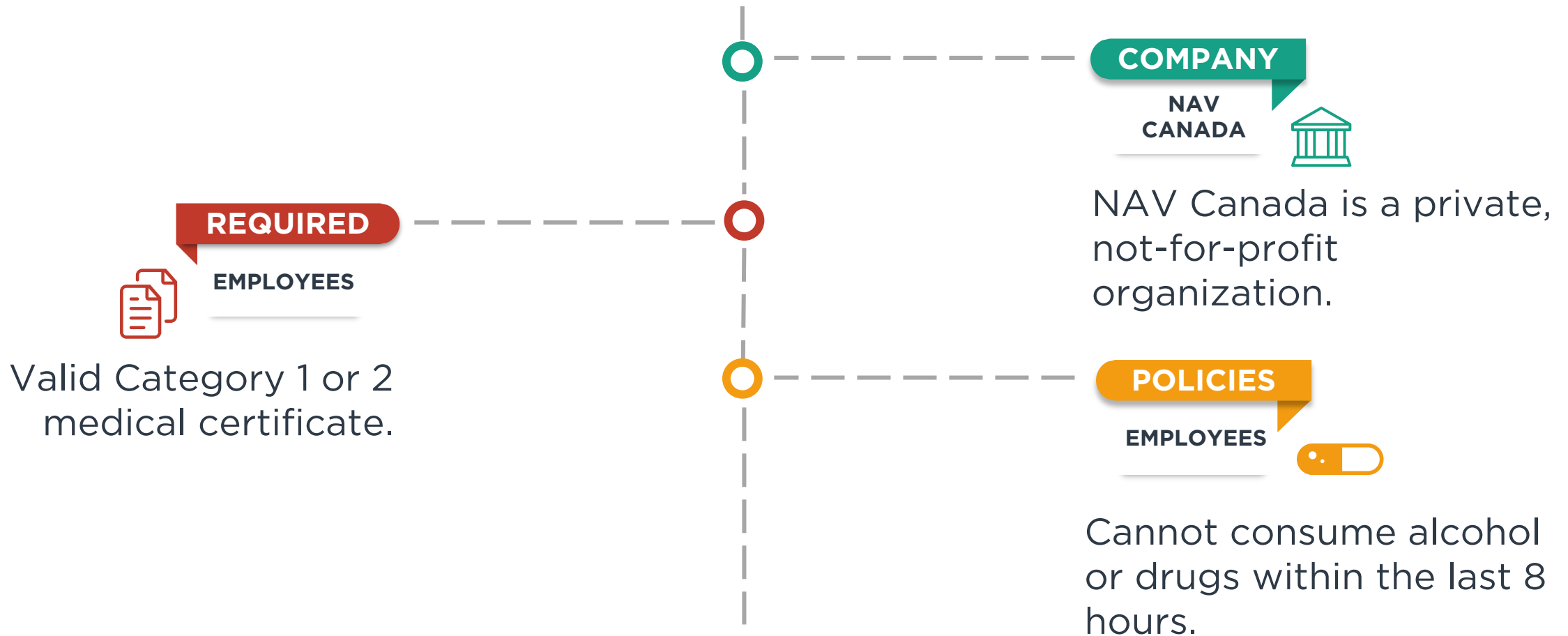
Feel overwhelmed by the immense responsibility over thousands of people at once.

One bad judgement call or failure to is a matter of life and death within seconds.





GOVERNMENT FOCUS





COMPANY

MOVE TO PRIVATIZE

A proposal in the FAA bill that would take air traffic control out of the hands of the government agency.



REQUIRED

INCREASE FUNDS

The U.S. Federal Aviation Administration has struggled for years to secure enough funding to update its aging infrastructure.



REQUIRED

BETTER TECHNOLOGY

As a result, the FAA has a terrible stock of capital investment.



OTHER MEASURES:

- Better methods to reduce stress.
- Non-punitive reporting system to reinforce safety culture.

INDIRECT GOVERNMENT INTERVENTIONS



INVESTMENTS IN EXPANDING AIRPORTS INCREASING WORKLOAD

PROVISION OF FINANCIAL MOTIVATORS TO INFLUENCE WORK



WAYS TO COMBAT STRESS



WHILE ON DUTY

How can employees remain at ease while performing their required duties?

OFFICE FURNITURE

Ergonomically approved furniture

CHOICE OF CLOTHING

No strict dress policy.
Any comfortable clothing of your choice.

OTHER MEASURES

Acoustic adjustments,
Organized workstation,
Personalized headset,
Deal with conflicts immediately.

DUTY PERIODS

HOURS & SCHEDULING

- 10 hour work limit.
- 12 hours + between shifts.
- Consecutive periods of duty should not exceed 50-hours over a 7-day week.

BREAKS DURING WORK

- On “Non-busy” days, workers are active 66% of the shift.
- On “Busy” days, workers are active 50% of the shift.



WAYS TO COMBAT STRESS



BREAK ACTIVITIES

WHAT A BREAK SHOULD LOOK LIKE



EATING OR READING



WORKING OUT AT THE GYM



PING-PONG TOURNAMENT



LA-Z-BOY NAPPING OR TV WATCHING



WALKING AROUND THE PARKING LOT



TALKING TO FRIENDS AND FAMILY ON THE PHONE

DETACHMENT STRATEGIES

● “FIT-FOR-DUTY”
LEAVE

EVERYONE IS DIFFERENT ●

● NATURE OF THE STRESS
IS ACUTE

LEAVE WORK AT
WORK ●

● SWITCH ROLES

DIFFICULT FOR ON-CALL
STAFF ●



WAYS TO COMBAT STRESS



PSYCHOLOGICAL HELP

MENTAL HEALTH COUNSELLING

SUBSTANCE ABUSE COUNSELLING

SUPERVISOR/GROUP INTERVENTION

Promotion of a safety climate
Mantra: Safe, Orderly, Efficient.

Provision for outside
referrals and consulting.



HEALTH IS WEALTH

EMPLOYEE WELLNESS PROGRAMS

HEALTH-RELATED PROGRAMS

ON-SITE NURSE 24/7

FAMILY CARE BENEFITS

MASSAGE THERAPY 2-DAYS/WEEK

Other measures include
information board with tips
on healthy work habits.



RECOMMENDATIONS FOR FUTURE IMPROVEMENTS



RECOMMENDATIONS FOR THE FUTURE



MAINTAIN STATUS-QUO

NAV Canada can continue with the good practices in place.

REGULATE SCHEDULES



Managers can adopt measures to strictly regulate schedules and shift changes.



BUILD TEAM SPIRIT

Team leads and supervisors should initiate activities which build team morale.

RECRUITMENT



Hire additional personnel
e.g. Air Traffic Controllers,
Administrative Staff,
Summer Student/Co-op
Program

THANK YOU!



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