

Procedures for everyone, by everyone

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2018 - the year of procedures in CAL

✈ So many procedures...

- ✈ Flight Operations
- ✈ Maintenance
- ✈ Ground Operations

✈ How about...

- ✈ Commercial?
- ✈ HR?
- ✈ Finance?
- ✈ IT?



If everything is working, why change?

- ✈ We were about to grow
- ✈ Standardization
- ✈ Efficiency
- ✈ Excellency



How do we engage every one?

The game is ON!



Step 1

Design and build a paper airplane that would fly the furthest.



Step 2

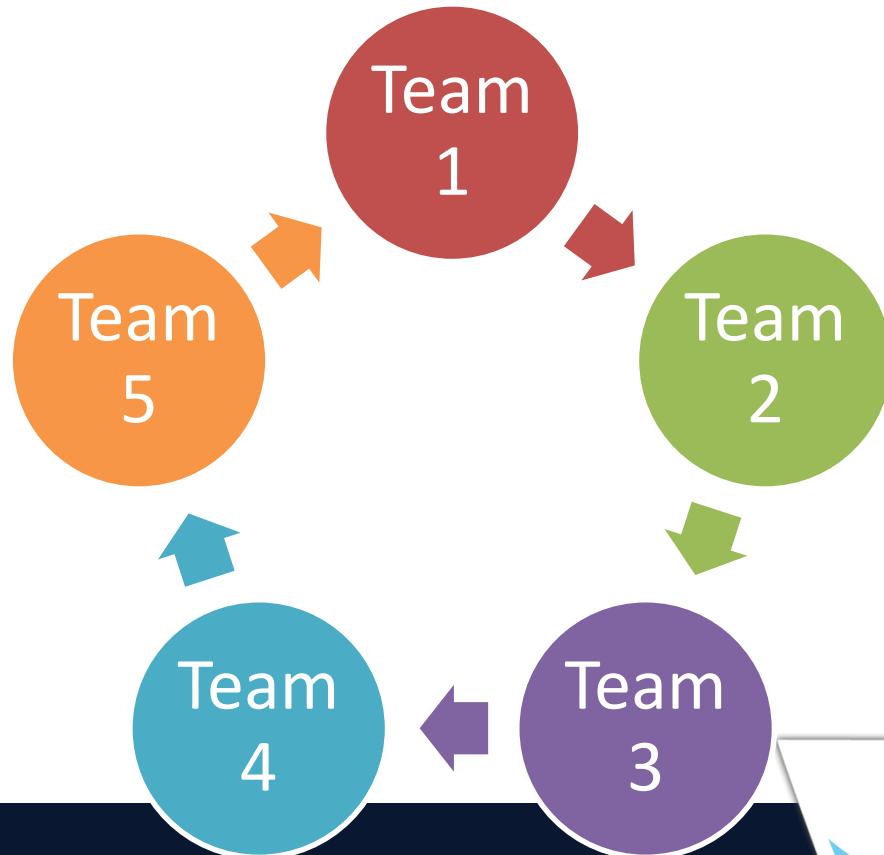
Write a procedure for building your plane.



Step 3

And now.... Switch!

Give your procedure
to the next team.



Step 4

Mass-produce.

Build as many aircrafts as you can in accordance with the procedure you just got.



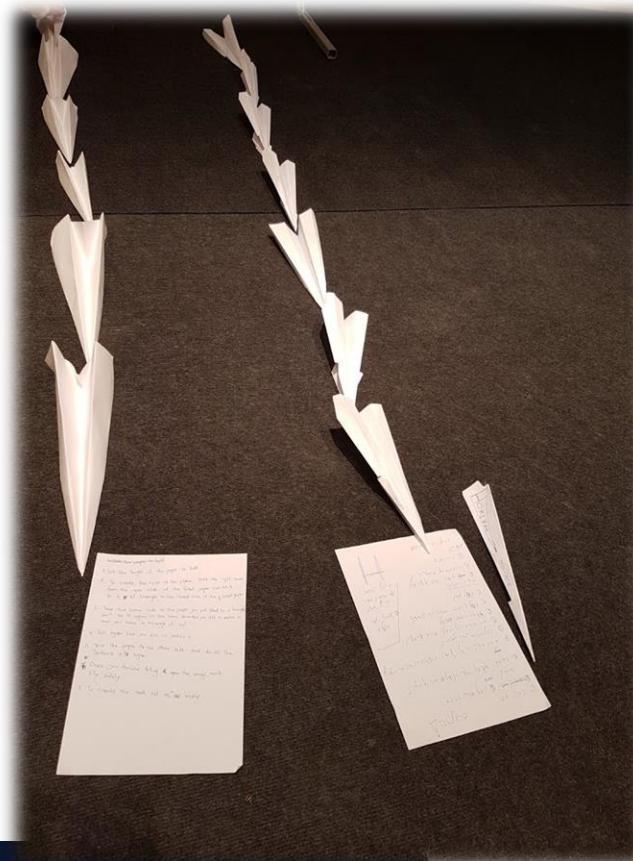
Who is the winner?

Standardization

all aircraft should look the same and have similar measurements

Excellence

all aircraft should be as close as possible to the prototype and have same or better performance.



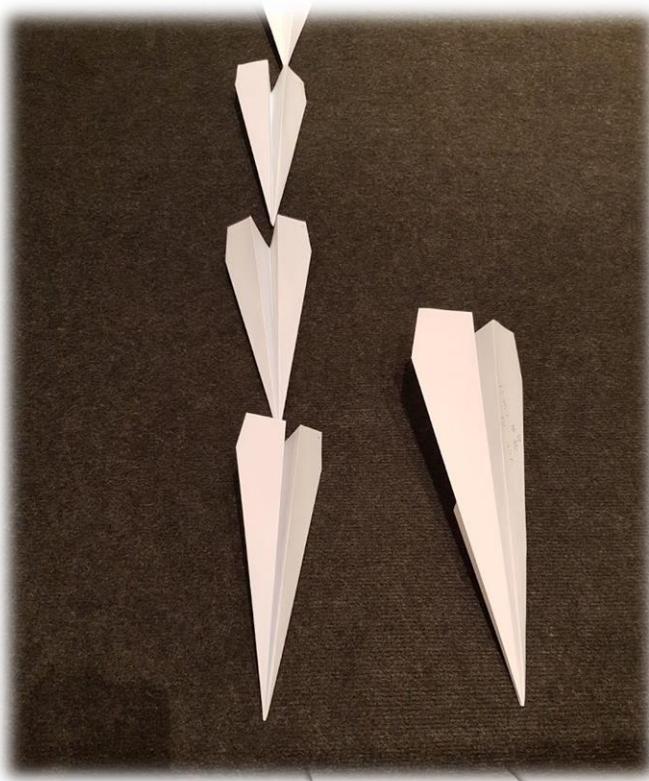
Who is the **real** winner?

✈ Manufacturing?
✈ Engineering?



Who is the **real** winner?

- Procedure followers?
- Procedure writers?



Lesson #1

- You have to get your team engaged.
- The team has to understand the importance of having procedures and the importance of following them.
- Cross departmental collaboration is essential.

The “Procedures Team”

➤ The project is coordinated by a small team

➤ Consultant

➤ 2 industrial engineers / analysts

➤ Every department assigned at least one “Procedures Trustee”

➤ Department needs

➤ Professional know-how

➤ Training and implementation

➤ Location, location, location

➤ Next to the Flight-Ops, OCC, Safety and Quality management.

The “Procedures Team”

Over 100 procedures written.

In final stages of internal audit

- Implementation

- Compliance

- Improvement

Train-the-trainer

Lesson #2

The winning team in the procedure **writing** contest, did not write a procedure at all....

Lesson #2

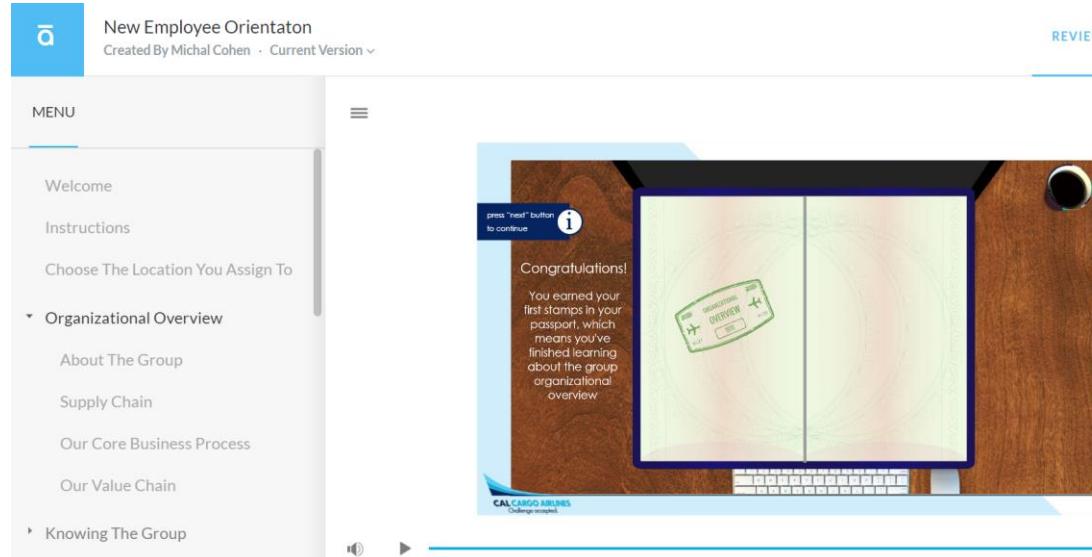
☛ Use technology.

☛ Encourage and reward out-of-the-box thinking.

☛ Make learning fun.

Implementation

➤ New employee orientation is a video game.



The screenshot shows a video game interface for 'New Employee Orientatlon'. The top bar includes a logo, the title 'New Employee Orientatlon', 'Created By Michal Cohen · Current Version', and a 'REVIEW' button. The left sidebar, titled 'MENU', lists several sections: Welcome, Instructions, Choose The Location You Assign To, 'Organizational Overview' (expanded to show About The Group, Supply Chain, Our Core Business Process, Our Value Chain, and Knowing The Group), and a three-line menu icon. The main area displays a congratulatory message: 'Congratulations! You earned your first stamps in your passport, which means you've finished learning about the group organizational overview'. It features a green passport stamp with the text 'ORGANIZATIONAL OVERVIEW' and a small airplane icon. The bottom of the screen shows a keyboard and the 'CAL CARGO AIRLINES Challenge accepted.' logo.

Implementation

✈ Pilot procedure training is now in video



Thank you.

But before we go...

This is the procedure to replace a tire on an aircraft....

Unchanged for 50 years

Rev 1

Procedures for everyone, by everyone

BOEING

737-300/400/500

AIRCRAFT MAINTENANCE MANUAL

MAIN GEAR WHEEL/AND TIRE - REMOVAL/INSTALLATION

1. General

A. This procedure tells you how to remove and install the wheel and tire assembly of the main landing gear.

TASK 32-45-11-004-001

2. Main Gear Wheel Removal

Figure 401

A. General

(1) The tools that follow are necessary to do this procedure.

- torque wrench, STD-1021

B. References

Reference	Title
07-11-31 P/B 201	JACK AIRPLANE AXLES - MAINTENANCE PRACTICES
32-00-01 P/B 201	GROUND LOCK ASSEMBLIES - MAINTENANCE PRACTICES
32-45-00 P/B 601	TIRES AND WHEELS - INSPECTION/CHECK

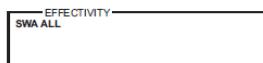
C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt.", which stands for Optional.

Reference	Description
SPL-9806	Ground Lock Assy - Nose and Main Landing Gear - 737-100,200,300,400,500 * Flyaway Eqpt*
737-300, -500	Part # F72735 Supplier: 81205
SPL-9825	Socket - Axle Nut - 737-100/200/300/400/500
737-300, -500	Part # F80168-3 Supplier: 81205
SPL-10012	Axle Thread Protector - MLG (F72913-11 Included in F72913-10 Kit) - 737-100/200/300/400/500
737-300, -500	Part # F72913-10 Supplier: 81205
SPL-10013	Axle Protector - MLG (F72913-8 Included in F72913-10 Kit) - 737-100/200/300/400/500
737-300, -500	Part # F72913-11 Supplier: 81205
SPL-10014	Axle Thread Protector, Undersized - MLG (F72913-14 Included in F72913-13 Kit) - 737-100/200/300/400/500
737-300, -500	Part # F72913-13 Supplier: 81205
STD-1021	Wrench - Torque, 100 to 600 ft-lbs (135.58 to 813.48 N-m)

D. Location Zones

Zone	Area
101	Control Cabin - Left
102	Control Cabin - Right



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32-45-11

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Mar 25/2015

CAL CARGO AIRLINES
Challenge accepted.

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How to Change a Tire | Change a flat car tire step by step

Howdini • 1.9M views • 11 years ago

Nothing takes the joy out of a road trip like a flat tire. Do you know how to change it? We didn't, but we've learned from Allan ...



How to Change a Tire (plus jacking it up)

ChrisFix ④ 1.1M views • 4 years ago

How to take off a car wheel. One of the most fundamental parts of working on a car is properly and safely taking the wheel off and ...



A Woman's Guide To Changing A Tire

Something Fishy • 3.4M views • 2 years ago

Ever have a flat tire and there were no men around to help you? When I was driving from Dallas, my tire exploded around 2 am and ...