

Good afternoon, and welcome to the 2020 Senior Symposium. We are here to present to you a business strategy for The Boeing Company. We have entitled this Navigation into the Unknown: Boeing's journey from the red.

First, allow me to introduce my team.

\*\*\*NEXT SLIDE\*\*\*



My name is Jamie Boothe. I have been working in the business field for over a decade assisting entrepreneurs and small businesses with business administration, management, and accounting. My focus for this project was on the financial aspect.

With me, I have Joseph Sellers, Gabriel Buehler, and Justin Budge.

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Joseph has spent the last 4 years working in various inventory management and customer service positions and is pursuing his degree in accounting and economics. His focus for this project was on both management and finance.

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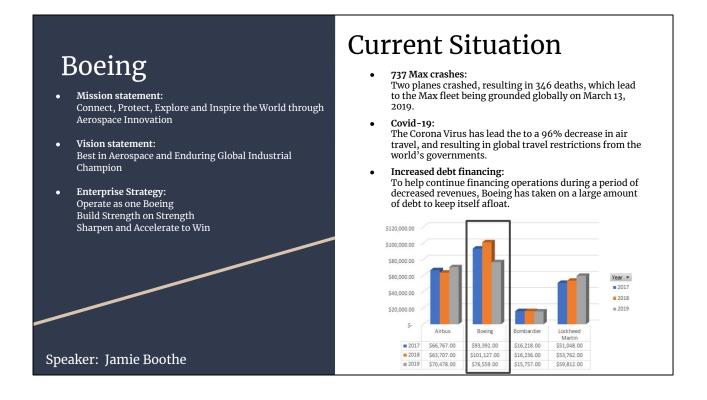
Gabriel has been working in the private sector managing personnel for the last 15 years. His focus for this project was on both marketing and management.

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Justin has 3 years experience as a retail salesman and is pursuing his degree in Business Administration & Management Accounting. His focus for this project was on both marketing and finance.

It is our pleasure to be speaking with you all this afternoon.

#### \*\*\*NEXT SLIDE\*\*\*



We will begin with a brief introduction to who The Boeing Company is and the current situation they find themselves in.

Boeing's mission is to Connect, Protect, Explore and Inspire the World through Aerospace Innovation while their vision statement is stated as Best in Aerospace and Enduring Global Industrial Champion

Boeing's enterprise strategy is to Operate as one Boeing, Build Strength on Strength, and Sharpen and Accelerate to Win

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Boeing has been facing strong backlash following two plane crashes on the company's new 737 MAX which occurred within 4 months of each other; Lion Air Flight 610, and Ethiopian Airlines Flight 302. The two crashes sadly involved 346 deaths and caused the 737 MAX fleet to be grounded globally on March 13, 2019, by the Federal Aviation Administration. Since then, the planes have been grounded indefinitely until they have their airworthiness reinstated.

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The crashes were just the beginning of Boeing's problems, as the Novel Corona Virus (COVID-19) would begin to spread globally and cause extreme travel restrictions, hoth demostically, and internationally. On March 12, 2020, President Traver took the

nen) Area (an area consisting of 26 European countries), and many other countries adopted similar air travel restrictions. The Transportation Security Administration has recorded a drop in travelers in the United States of almost 96% from 2019, resulting in less than 100,000 passengers per day, whereas the average number of travelers per day in 2019 was from 2.0-2.6 million.

The effects that this has had on the company's financial situation is drastic.

 $\cdot$  The grounding of the 737 Max has reduced revenues, operating margins, and cash flows, and will continue to do so until production and deliveries resume.

 The commercial airline sector of The Boeing Company makes up 60% of the company's total revenue, and the other sectors of the company are unable to absorb the losses long-term.

 $_{\odot}\,$  Cash flows from inventory went from earnings of \$568 million in 2018 to a loss of \$12.4 million in 2019.

 $\cdot$  The backlog of 737 Max inventories are saturated with planes needing repaired, which is increasing current production costs.

 $_{\odot}\,$  For FY ended December 31, 2019, \$76.6 billion of Boeing's \$102.2 billion in current assets were held in inventory.

• Pending litigations and possible fines and penalties imposed by regulators promise to be a significant financial burden on the company.

 Should the FAA decide to bring a case against Boeing in regards to the 737 MAX crisis, they will be facing penalties and fines that could amount to \$3,000 to more than \$34,000 per violation. These fines could be applied to each of the more than 300 planes that were affected by the software malfunction.

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• Boeing's substantial debt financing has led to a decline in its credit rating. On March 24, Fitch Ratings downgraded Boeing from an A- to BBB, stating it was due to uncertainty caused by Covid-19. Which has increased the cost of debt for the company.

 $_{\odot}\,$  Boeing has continued financing its commercial airplane operations with over \$25 billion in loans

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# Strategic Plan

#### **Objective**

To repair Boeing's reputation as the leader in aerospace innovation, establish the company as the industry leader in "Green" aviation, recapture lost market share, and reduce the company's current outstanding long-term debt.

#### Strategic Analysis

- Boeing spends \$3.5 billion annually on Research & Development Currently has 18.9% market share of Aircraft, Engine, & Parts Manufacturing industry
- Boeing currently has over \$25 billion in outstanding debt
  Commercial Airplane segment has over \$412.3 billion in order backlogs
- Unique opportunity to emerge as the industry leader of "Green" Aviation

#### Speaker: Joseph Sellers

#### Strategic Formulation

- Reduce overall long-term debt by utilizing government assistance to offset the negative economic effects caused by COVID-19
- Cooperate with FAA regulations and have the 737 Max's airworthiness reinstated, following this, rebrand the plane as the 737x to reintroduce it to hesitant travelers.
- Establish Boeing as the leader of "Green" Aviation

#### **Strategic Implementation**

- Reduce debt financing and utilize assistance from the CARES Act
- Cooperate with FAA regulators and have the 737 Max's airworthiness reinstated, following this, rebrand the plane as the 737x
- Launch an Eco-Centric PR campaign focusing on the 777x and 737x models
- Regain stakeholder's trust and confidence by promoting innovations which increase safety, and increase fuel efficiency

Thank you Jamie. Hi, my name is Joseph and I will be speaking about our team's Strategic Plan. The ultimate objective of our strategic plan is to maintain Boeing's position as the industry leader in the Aerospace industry. To date, Boeing has spent an average of \$3.5 billion dollars annually on Research and Development, for the past ten years. Boeing's heavy focus on R & D allows for constant innovation in the company's engines, airframes, and fuel economy. Boeing is still the leader in the Aircraft, Engine, & Parts manufacturing industry but they have had a drop in market share from 31.1%, to 18.9%, caused by the 737 Max crashes, and the following crisis caused by Covid-19.

In 2019, following the 737 Max crashes, Boeing experienced a decrease in revenue of 24.29%. A decrease which would ultimately give Boeing its first loss in over 20 years, breaking the company's growth streak. Boeing's backlog of Commercial Airplane inventory has been over \$412 billion since 2018, showing the firms constant ingress of orders during stable times. However, Boeing has not been able to effectively work through this backlog due to the 737 Max, its most sold plane, being grounded, and the travel restrictions resulting from Covid-19.

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In order to combat Boeing's debt concerns, our plan has identified Boeing's opportunity to emerge as the industry leader for "Green" Aviation. Due to reduced pollution levels caused by Covid-19, we are seeing some of the benefits that come from reducing those harmful emissions caused by inefficient fuel consumption, and inefficient flight schedules. Clearer waters and returning animals has shown the world the benefits that a focused plan to reduce emissions may provide. Boeing has the R & D capabilities that will allow it to innovate itself into a dominant position in the world of "Green" aviation.

To help establish Boeing's "Green" initiative, our plan aims to create a Public relations and marketing campaign that focuses on a rebranded 737 Max and the upcoming 777x planes, which both feature innovations that have reduced overall fuel consumption and improved emissions output from their predecessors. Once the 737 Max has its airworthiness reinstated by the FAA regulators, it will be rebranded and marketed as the 737x, to help associate it with the newer 777x, and help ease hesitant travelers back onto the aircraft. Many surveys have been conducted on flyers' willingness to fly on the 737 Max planes; National Public Radio's David Schaper reports that a survey of 2,000 frequent flyers shows that 80% were uncomfortable flying on the aircraft for its first six months returned to service, and 50% of those respondents stated that they would pay higher rates in order to not fly on the aircraft. The goal of the name change is to help customers disassociate the 737 from the crashes, so airlines will have less friction offering the aircraft to its customer base, and in turn ease the hesitance that airlines may have on ordering the aircraft.

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I will quickly cover the Financial details on the aircraft programs, and their improved fuel efficiency over their predecessors. The 777x is Boeing's latest offering in the twin-aisle, twin-jet engine category of aircraft. The aircraft features folding wing-tips, an improved airframe utilizing carbon fiber and the GE9X engine, supplied by GE aviation. The aircraft has a proposed improvement of 10% better operating economics, and at least 10% improved fuel efficiency and improved carbon emissions compared to its predecessors, while less conservative estimates place it between 13-20%. The final development cost of the 777x program is just over \$5 billion, but each plane will sell between \$410-442 million, with a production and delivery rate of 5 and 3 planes, per month, respectively, and a total of 309 orders placed globally to date. This promises a healthy return for the company that will assist in both revenue growth and recouping both the 777x's development cost, and the current losses associated with the 737 Max crisis.

The 737 Max is an updated, more fuel efficient design of the 737 series, with its immediate predecessor being the 737NG (next generation), and the Max series has 5 different models for airlines to choose from. The LEAP-1B engine from CFM International burns 13-14% less fuel compared to the 737NG series, which has been the reason for the 737 Max's wide adoptance across multiple airlines. Less fuel consumed equals less emissions, and more money saved for both airlines and travelers. The initial developmental cost of the 737 Max program is just under \$4 billion dollars, with a total of 4,471 orders, and 387 deliveries to date, with an average unit cost of \$120 million. As of March 2019, 387 planes were delivered to customers, with over 400 produced and in storage as of December 2019.

Following the tragic accidents involving Lion Air Flight 610, and Ethiopian Airlines Flight 302, the 737 Max fleet was grounded globally by the FAA. Boeing has estimated that the crashes caused nearly \$19 billion in losses. This is where the financial assistance provided by the CARES Act comes in. The CARES Act looks to support the Aerospace industry with \$60 billion in loans and loan guarantees, \$25 billion of which is for commercial air carriers and another \$25 billion is for employee compensation and retention. The strings attached are that the United States' Federal Government would gain the option to gain an equity stake in the company. The CARES Act has set aside \$17 billion for Boeing, however, current Boeing CEO David Calhoun stated his stance on the matter, and is looking to avoid any loans from the government, as he seeks to avoid the equity stake. Our plan sees the CARES Act as being a fundamental tool to help maintain Boeing's assets and employees, and allow for the transition into relying on an in-house R&D and engineering workforce.

To keep our plan in line with Boeing's mission statement and company values, we aim to:

Establish Boeing as the leader of "Green" Aviation, which Connects, Protects, and Explores through innovation

Restore Stakeholder confidence, focusing on the FAA, airlines, and travelers, which builds strength on strength

Reduce Boeing's outstanding long-term debt, will help Sharpen and Accelerate to win

## And to establish an in-house workforce that is less reliant on sub-contractors, through the use of the CARES Act, allowing us to operate as one Boeing

Now I will turn it over to Gabriel, who will cover the analytic tools we used to determine our plan.

SWOT, IFAS, EFAS				Strengths	Impact	Response	WS
			R&D capabilities	0.25	4	1	
				Global diversification	0.2	3	0.6
				Strong reputation	0.1	3	0.3
				0 1		-	1.9
<u>S</u>	<u>strengths</u>		<u>Weaknesses</u>	Weaknesses	Impact	Response	WS
	earch and elopment		Assets are hard to liquidate.	Assets are hard to liquidate			100.00
	abilities	2.	nquidate. Debt financing.	5 Sec 11 - 5. 12	0.25	2	0.5
	oal Market ersification	3.	Reliance on subcontractors and 3rd	Debt financing	0.15	1	0.15
	ng Reputation		party suppliers	Reliance on subcontractors	0.2	3	0.6
							1.25
	<u>Threats</u>		<u>Opportunities</u>	IFAS Weighted Total Score	8		3.15
	tract pricing may It in less revenue.		Be the face behind "Green" aviation.	5			
2. Affe	cted by policies put	2.	Assistance from the	Opportunities	Impact	Response	WS
	lace by the World's ernments and public	3.	CARES Act for employees Rebranding of assets.	Face of "Green" aviation	0.2	3	0.6
mov	e to alternative	.ر	incortainaing of assets.	Assistance from CARES	0.1	2	0.2
	hods of travel. regulators			Rebranding of assets	0.25	4	1
							1.8
				Threats	Impact	Response	WS
				Contract pricing hurts revenues	0.2	2	0.4
				Policy and alternative travel method		2	0.4
				FAA regulators	0.25	2	0.5
				EFAS Weighted Total Score			3.1
peaker	: Gabriel Bue	hle	r	Lino weighten Pour Score			5.1
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SWOT, IFAS, EFAS and TOWS

Thanks Joey,

From a SWOT perspective,

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we see their R&D capabilities as their greatest strength,

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their asset liquidation as their greatest weakness,

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the rebranding of those assets and becoming the face of "Green" aviation is their greatest opportunity,

#### \*\*\*CLICK\*\*\*

and while the FAA regulators are the most immediate threat, government policy and public selection of alternative travel methods is probably the greatest long term threat.

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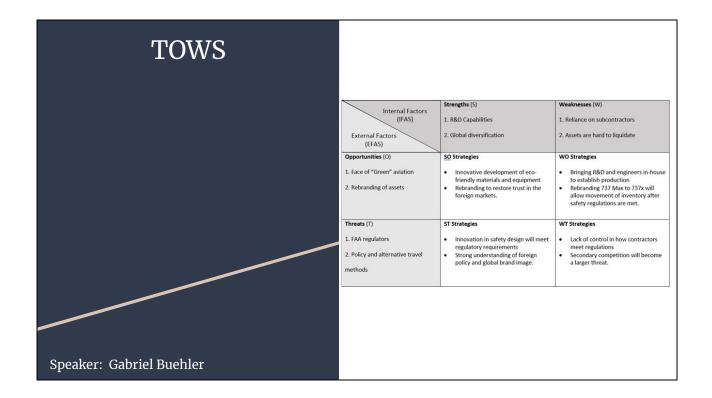
IFAS: Looking at an internal factor analysis, R&D Capabilities will be their greatest strength through this process. Those capabilities and Boeing's focus on them will be

critical in achieving this strategic plan. Mitigating the asset holdings issue and achieving a more balanced workforce structure are some of the most critical internal weaknesses that need to be dealt with.

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EFAS: From an external factor analysis perspective, rebranding of their idle assets and moving to be the face of "Green" aviation were the two primary opportunities we identified. These will provide near-term stability and a renewed public opinion of their brand. Essentially, innovating and overcoming in hardship.

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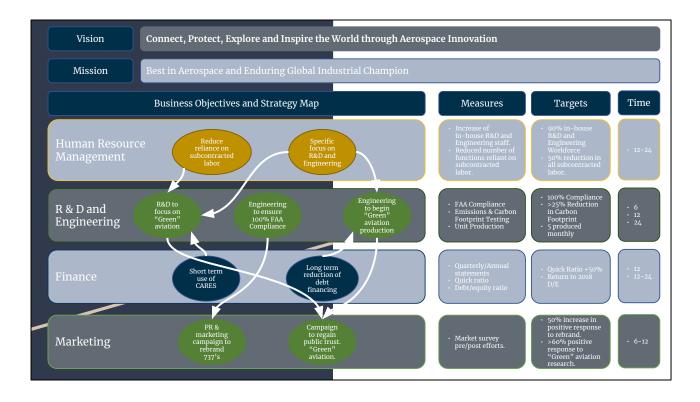
#### TOWS:

Turning all these into strategies...

When combining strengths and opportunities, we see the most prevalent strategy being the innovation and development of "Green" aviation products. This combined their R&D capabilities and their opportunity to be the face of "Green" aviation. Looking at Weaknesses and opportunities, the strategy to rebrand the 737's to allow for movement of the inventory mitigates the weakness of assets being difficult to liquidate and takes advantage of the opportunity of rebranding.

Weaknesses and threats, the strategy to bring R&D and Engineering functions in-house mitigates the lack of control in how contractors meet regulations. Finally...

Strengths and threats, a strategy through innovation for safety design will meet current and future regulatory requirements. This significantly mitigates the threats from regulators which could cost Boeing hundreds-of-millions of dollars.



That brings us to the Balanced Scorecard to determine the objectives, measures, targets, and dependencies that exist with this strategic plan.

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Marketing: Primary requirements for next 12-24 months include the rebranding of the 737 line and creating a marketing campaign around "Green" aviation. Measures would include market surveys for these objectives before, during and after full implementation. We'd like to see a 50% increase in the positive response related to the rebranding and greater than 60% increase in positive response to "Green" aviation and overall company brand reputation.

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Finance: To get the wheels turning in the right direction for R&D and Engineering the financing strategies have to be in place. They'll need to assess strategies for both short term and long term financing in order to support R&D and Engineering's initiatives while still achieving their targets through 2022. We see measures they can use for this as the quarterly and annual financial statements, the quick ratio and D/E ration. We'd like to see the quick ratio (which measures the ability of a company to use its quick assets to retire its current liabilities) improving by atleast 50%. For the Debt to Equity ratio (which is a measure of how the company finances itself by looking at total liabilities and shareholder equity) returning to levels equivalent to 2018.

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R&D and Engineering: Near term objectives are to ensure FAA compliance and early research and development related to Green initiatives. Marketing relies on them in these two areas to ensure that they're no selling vaporware and false dreams. We foresee measures they can use for this as compliance with FAA regulations, emissions and carbon foot print testing and overall unit production related to "Green" aviation. The targets here are obviously 100% compliance to FAA regulations, greater than 25% reduction in carbon footprint related to the Green aviation, and atleast 5 GREEN commercial airplanes produced monthly by the 24 month mark.

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HRM: We also identified that HRM has a huge role to play in these strategies. They'll need to undertake significant efforts in the near-term to support the R&D team and their Green aviation initiative. In the mid-term they'll need to focus on bringing Engineering staff in-house. Measures to be taken will be the increase, or level, of in-house R&D and Engineering staff. We also see a reduction in functions that are reliant on subcontracted labor as a measure. The associated targets would be total in-house R&D n Engineering staff being 90%. For R&D and E related functions, we'd like to see a target of a 50% reduction in the next 24 months. These targets will be directly related to successful implementation of HRM's business objectives.

All of these departments have Dependencies,

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Marketing depends on positive signals from R&D n E to effectively move these campaigns forward.

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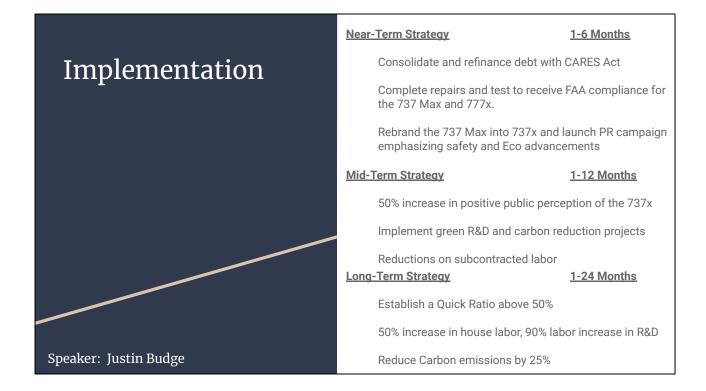
R&D n E depends heavily on Finance to re-strategize in order to fund this new "Green" aviation.

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R&D depends heavily on HRM in the first 12 months to begin bringing in the best and brightest minds to push "Green" aviation. Whereas engineering depends heavily on HRM in the next 12-24 months to ensure they have enough engineering in house to achieve their targets.

And with that, I'll turn it over to Justin to discuss Implementation and Success vs Failure of these strategies.

Quick ratio: 2017 .37 ; 2019 .23 Debt/equity ratio: 2017 27.55 ; 2019 negative



## NEAR TERM STRATEGY

For our strategy we plan to implement it over the next two years, as our first 6 month near term strategy we suggest Boeing consolidated and refinancing debt with assistance from the CARES Act to help Boeing return from a negative debt equity ratio to pre 2018 levels. (27.55 in 2017)

Our next strategy is to complete the necessary repairs and regulatory tests on schedule to receive FAA compliance for the 737 Max to be back in service in July 2020, and for the 777X when it launches in 2021

Our last near term strategy would be to rebrand the 737 Max into 737x after it receives regulatory approval and launch a PR campaign that will familaries the 80% of nervous 737 max flyers about new safety and eco friendly improvements while setting the groundwork to introduce flyers to Boeing's next generation of large passenger jets the 777x.

## (CLICK) MID-TERM STRATEGY

At the beginning of our 12 monthmid-term strategy we suggest boeing conduct a market survey to assess public perception of 737x and to measure if the PR campaign has been successful at increasing the public's positive perception of the plane, our goal being an increase of 50 point to 80%.

Next we suggest implementing our green initiatives and research and development with a goal of reducing plane emissions by 25%.

Lastly we would also like to see Boeing to start to reduce its reliance on subcontracted labor with the goal of streamlining production.

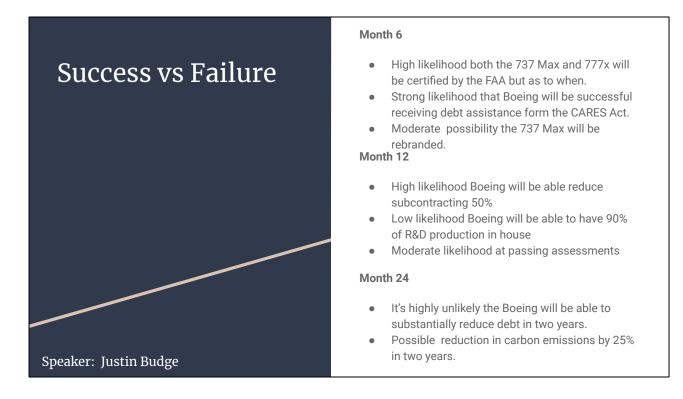
## (CLICK) LONG TERM STRATEGY

For our long term strategy we try to capitalize on the strategies implemented in the near and mid term periods.

With government assistance through the CARES Act and potential future assistance legislation we would want to see Boeing's quick ratio move upward to 0.5.

Next with the implementation of sub contractor reductions we expect Boeing to start to increase its in house labor by 50% with research and development labor increasing by 90%.

Lastly we would like to see that Boeing's increased focus on environmentally conscious engineering has lead to a measurable reduction of airline emissions by 25% thus any completing pledges made in public relations campaign.



### Month 6

For our near term strategy it's highly likely that Boeing will get the 737 Max and the 777x certified for flight by the FAA, however, with recent disruptions in supply lines and industry wide furloughs cause by Covid-19 both planes will likely be delayed in their entry into service.

For debt restructuring Boeing will inevitably receive assistance through the CARES Act which set aside 17 Billion for industries vital to defense, although Boeing is yet to collect any stimulus its importance relation to defense and the US economy that the company will inevitably receive assistance.

As for rebranding the 737 Max has a moderate possibility of being successful, as by the time the international travel lockdown is lifted the 80% of flyers who expressed their concerns about flying on the 737 Max may no longer care as the enjoyment of being able to freely move about the world again may overcome any anxieties.

Overall we expect our mid term strategies will most likely succeed.

where subcontractors have had difficulty maintaining production cause by Covid-19.

Our strategy to increase in house R&D labor will likely not succeed as R&D is one of the most expensive departments in the company, and boeing often relying on partnership with other major manufacturers to help burden the cost , Boeing will likely increase it inhouse R&D labor to help fulfill demand but likely not by 90%.

Lastly any assessment run to gauge how the Debt restructuring, PR campaigns, and Emissions reduction strategies are going, Boeing will likely produce positive results on its assessments, although the result likely won't reach goals set but show progress towards those goals.

Our Mid term strategy will be a mix of positive movement but not out right successes

## (CLICK) Month 24

For our long term strategy our goal to returning Boeing to pre 2018 levels within two years,will likely not be successful as, Boeing's has extensive amounts of debt it will likely have to finance the debt over a far longer period then two year, however we do expect to see some reduction.

Lastly it's a strong possibility that Boeing could reduce its emissions by 25% as its has been working regularly to develop more efficient engines and now with airlines desperately need to reduce cost market competition make focus Boeing to work harder to more drastically improve fuel efficiency and reduce emissions.

Our long term strategy will likely be a mix of successes and near successes



We would like to wrap up our presentation with a summation of what each of us have learned during this final semester.

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I have learned two main things in this process, one is on a personal level and another is much broader.

One, The COVID-19 situation has taught me that people are incredibly resilient and adaptable. Using myself as an example, I went from a full-time student, single mother who worked from home to a full-time student, single mother who now works from home, homeschools 3 children, maintains 4 sets of homework schedules, cooks 3 meals a day, cleans up after 4 people who are constantly in the house, and I am able to do it just as easily as I was able to do "normal" a month ago. It took me some time to get organized, but I was able to adapt very quickly and I know that there are thousands of people out there doing the exact same thing as I am with even more interruptions to their daily routines.

Two, the way we do business is going to evolve from this pandemic. We are learning how to work from home in jobs that we never considered taking out of the office space. People are learning how to communicate virtually and businesses are realizing that there are cheaper, more economical ways in which they can conduct business. I feel that there are going to be more work from home opportunities now than we have ever seen before. Joseph, would you like to share what you have learned?

\*Joey's turn to talk\* \*\*\*CLICK\*\*\*

I learned that Individuals are not as independent and self-reliant as we would like to think we are, including myself. Everything we do is social and we are social creatures. There are protests against the stay-at-home orders, and calls of concern relating to the constitution. All because we crave social interaction.

Secondly, I learned that panic is contagious, in a more volatile way than I have previously seen. We have all seen panic's effects on the stock market before, where a big panic sell-off event happens and the price of a stock drops incredibly fast. I have lived in the South for most of my life and I know that whenever there is a 5% chance to snow, the bread and themilk flies off the shelves. With Covid-19, we have seen that happen with almost every item that a grocery store carries. Now, I will pass it off to Gabriel so he can share his insights.

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