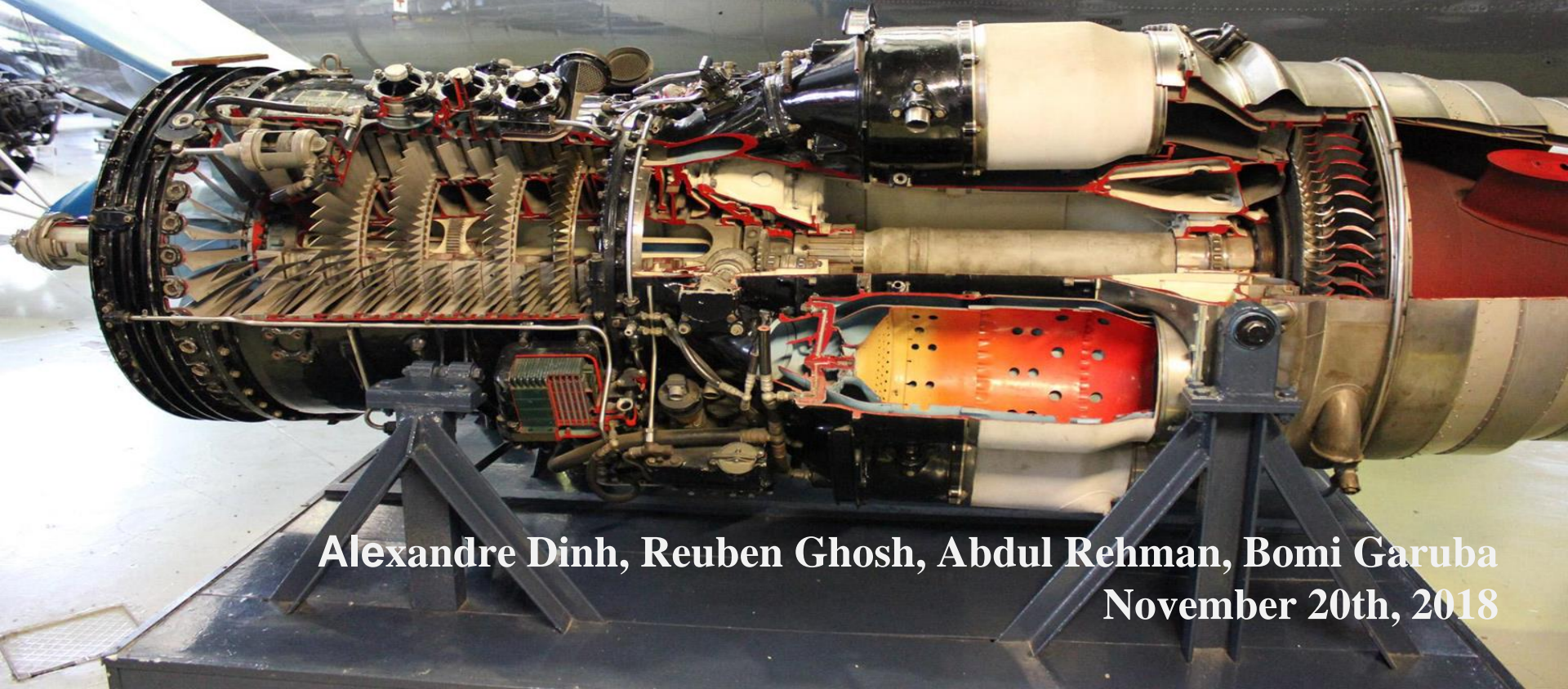
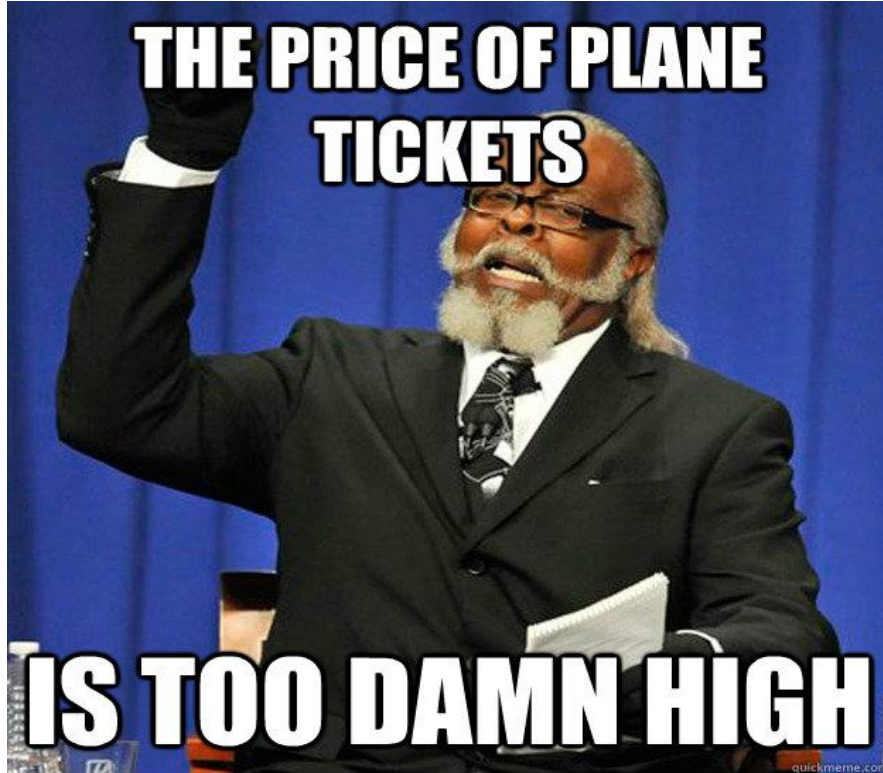


Team#3: Enhancing the Internal Combustion Engine of an Aircraft for a Rapidly Changing World



Alexandre Dinh, Reuben Ghosh, Abdul Rehman, Bomi Garuba
November 20th, 2018

INTRODUCTION



[1]



[2]

VIDEO EXPLAINING HOW ICE WORKS

[3]



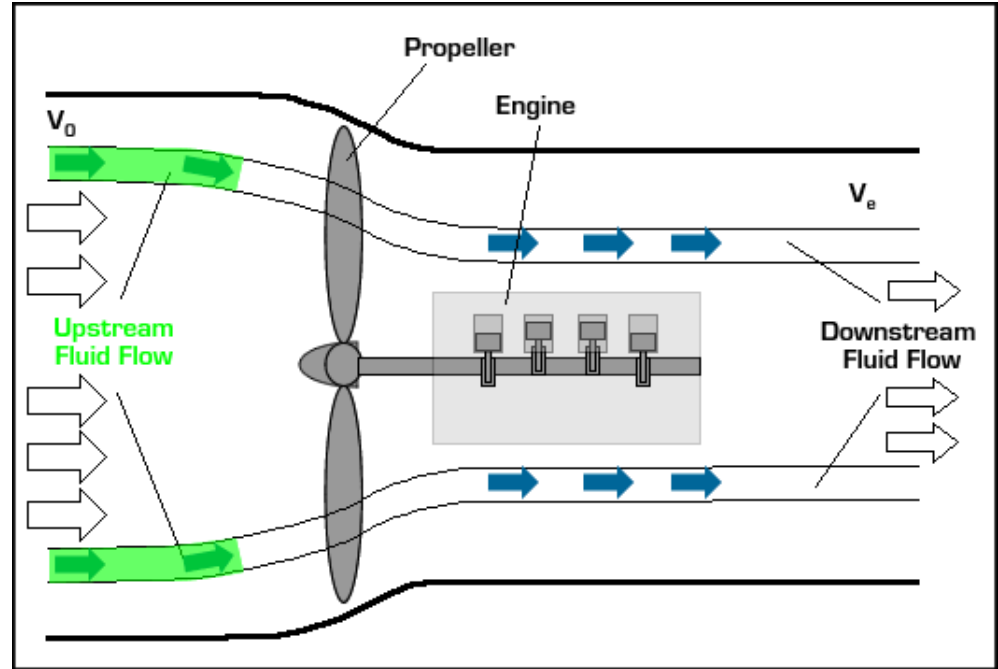
PRESENTATION FLOW

- REUBEN GHOSH CONTINUES TO ELABORATE ON THE MECHANISM OF THE ENGINE.
- ALEX DINH DISCUSSES THE CHEMICAL COMBUSTION WITHIN THE ENGINE.
- ABDUL REHMAN TALKS ABOUT THE EFFICIENCY OF THE ENGINE.
- BOMI GARUBA DESCRIBES HOW NOISE POLLUTION IS PRODUCED FROM THE ENGINE.

MECHANISM: PROPELLERS

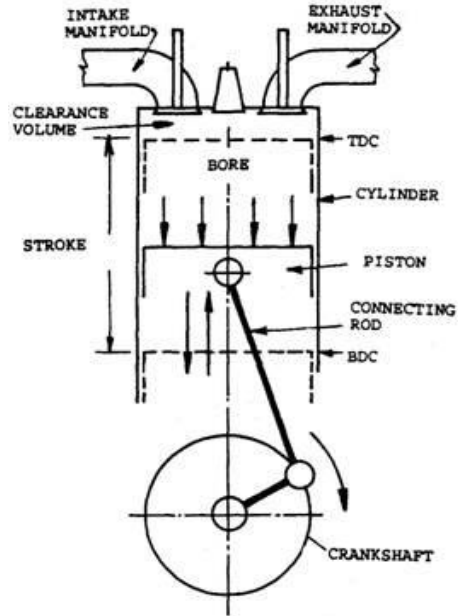


[4]



[5]

CRANK MECHANISM

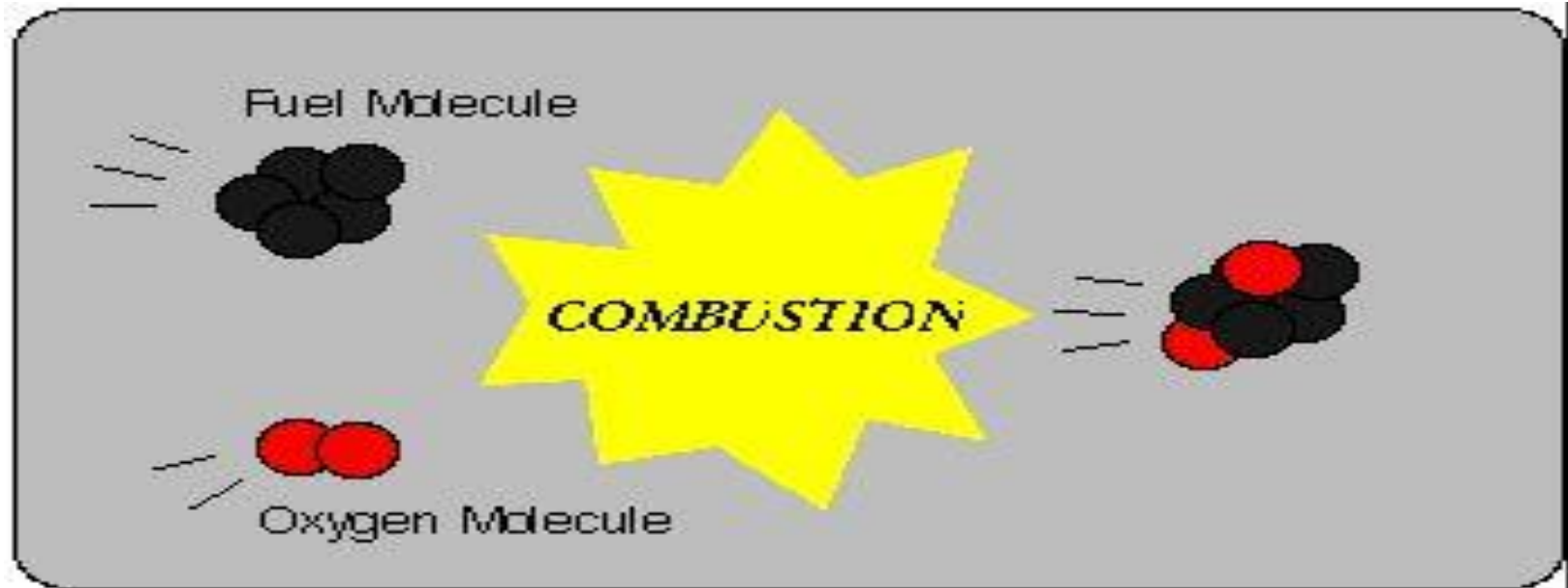


[6]



[7]

COMBUSTION - CHEMICAL REACTION



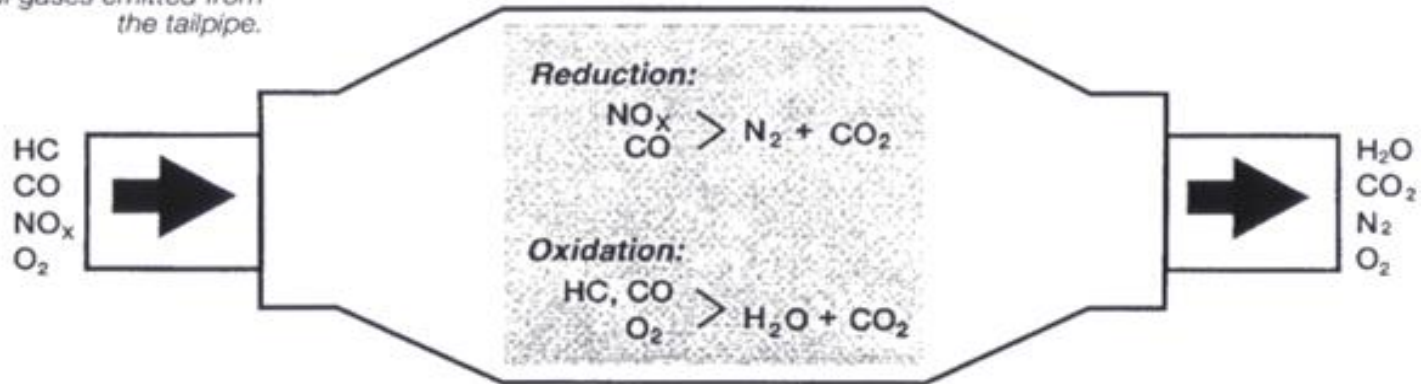
[8]

COMBUSTION - CATALYTIC CONVERTERS

Secondary Combustion

Catalyst reduction and oxidation occurs in the TWC to further reduce the level of harmful gases emitted from the tailpipe.

Oxidation and Reduction Process



3-Way Catalytic Converter

WHY TO IMPROVE EFFICIENCY?

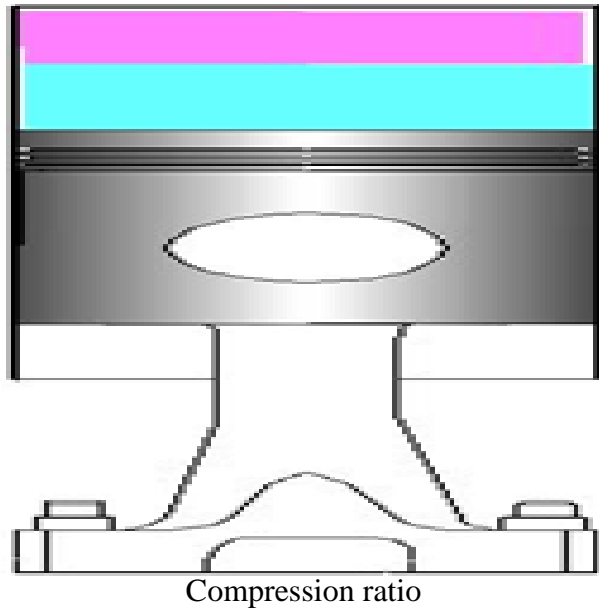


[10]

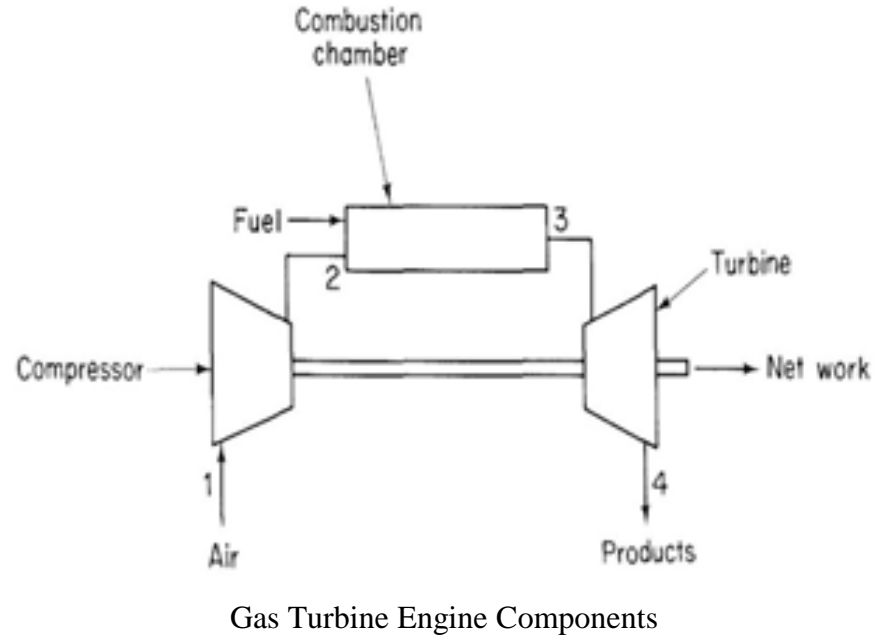


[11]

HOW TO IMPROVE FUEL EFFICIENCY?

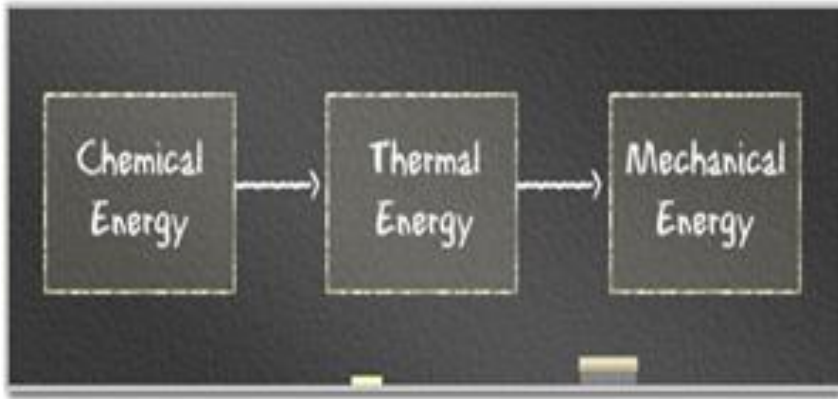


[12]

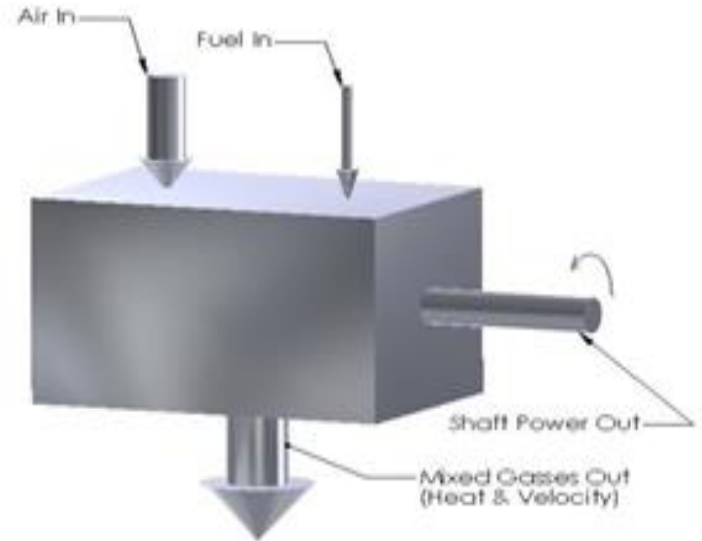


[13]

CONVERSION OF ENERGY



[14]



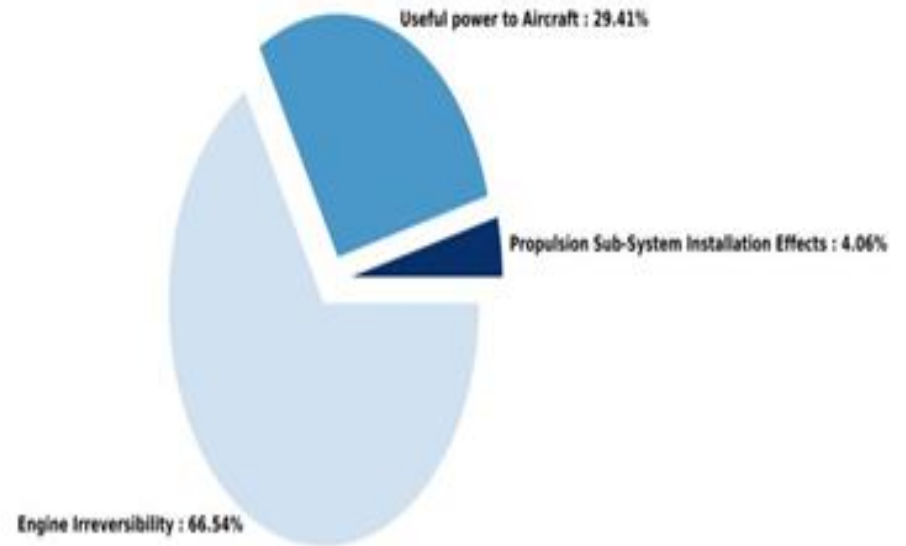
A box which represents an aircraft's internal combustion engine

[15]

FACTORS AFFECTING THE ICE EFFICIENCY



[16]



[17]

WHAT ARE THE WAYS TO ELIMINATE NOISE POLLUTION BY ICE?



HOW DOES A SONIC BOOM AFFECT PEOPLE ON AN AIRCRAFT?



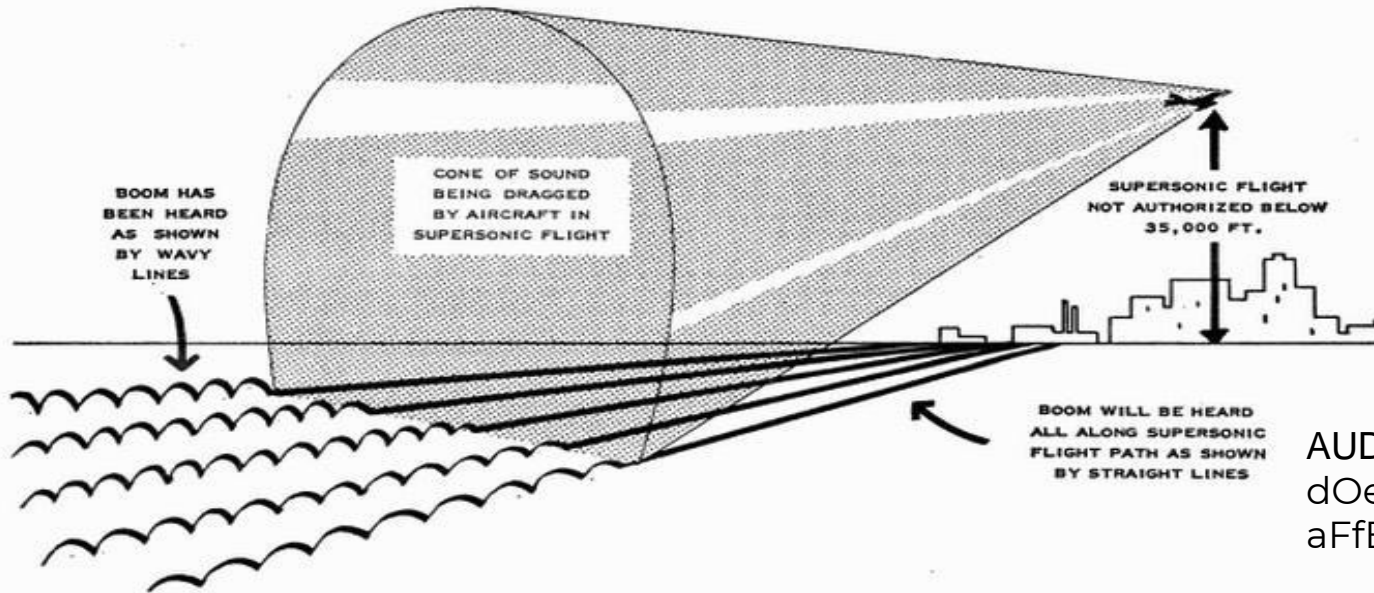
[19] **No, not this Sonic!**



[20] **Yeah, that's more like it!**

VISUALIZATION OF THE SONIC BOOM

THE SONIC BOOM



Supersonic planes make a sonic boom—heard along a 50-mile-wide band—not only when breaking the sound barrier, but continuously.



AUDIENCE: bUt HoW
dOeS tHiS fUnKy StUff
aFFeCT mE?

CONCLUSION: WHAT'S IN IT FOR YOU



[22]

YOU'LL BE GOING "GREEN" IN MORE WAYS THAN ONE!

[23]

WOW!!



[24]

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