

THESIS TITLE GOES HERE

by

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A Thesis

Submitted to the Graduate Faculty

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This thesis, submitted by MY NAME in partial fulfillment of the requirements for the Degree of Master of Science from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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This thesis is being submitted by the appointed advisory committee as having met all of the requirements of the School of Graduate Studies at the University of North Dakota and is hereby approved.

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Grant McGimpsey  
Dean of the School of Graduate Studies

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DATE

## PERMISSION

Title	Thesis Title Goes Here
Department	Atmospheric Sciences
Degree	Master of Science

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My Name  
July 30, 2017 (Today's date)

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## ACKNOWLEDGMENTS

Lovely acknowledgments to your adviser, committee, friends and family, and funding go here.



This is where you dedicate your thesis to someone.

## ABSTRACT

This is where your abstract goes!

## CHAPTER 1

### INTRODUCTION

This is an example of a few chapters and sections for your thesis. This template will also provide a general figure setup and reference, table, and equation. Labels are added to each chapter and section to allow easy reference to them. For example, this is chapter 1.

#### 1.1 How to add an equation

Here is an example of how to add an equation into your document. This is Ertel's Potential Vorticity Theorem,

$$PV = \frac{1}{\rho} \left[ \left( \frac{\partial v}{\partial x} - \frac{\partial u}{\partial y} \right) + f \right] * \frac{\partial \theta}{\partial z}, \quad (1.1)$$

where  $\rho$  is density,  $v$  and  $u$  are horizontal velocity,  $f$  is Coriolis, and  $\theta$  is potential temperature, the potential vorticity was calculated throughout the analysis domain.

## CHAPTER 2

### BACKGROUND

#### 2.1 How to add a figure

Here is an example of how to add in a figure. Please note that the line commented out (%) MUST be included. This is the title of the figure. The figure should be located in the same folder as your LaTeX document. The label MUST come after the caption.

When you call in the figure, you do not add .png, .jpg, etc. The label should be somewhat short and helpful so it can easily be referenced throughout the document. It is not recommended to label it as “Figure 1” as the figure number may change throughout the writing process; LaTeX will number the figures for you. This figure is figure 1.

Figure 1: This is where your caption goes. If your reference to the file is used, the figure will appear here.

## CHAPTER 3

### METHODOLOGY

#### 3.1 How to add a table

Here is an example of how to add in a table. Please note that this is a very basic table and you can make several adjustments to the contents, layout, etc. There are a lot of different table options, all it generally takes is a simple google search. You can reference the table just like a figure. This would be table 1

Table 1: Table showing the analysis grid average tropopause height at 1 hour, total mass transported above the tropopause, and absolute and relative difference of mass transport with respect to the constant altitude tropopause definition. The constant altitude tropopause definition calculated  $3.4 * 10^{11}$  kg of mass above the tropopause at 1 hour.

<b>1 hour</b>			
Definition	Average Tropopause Height (km)	Mass Transport (kg * $10^{11}$ )	Absolute Diff w.r.t CA (kg * $10^{11}$ )
WMO I	10.94	2.7	-0.7
WMO II	10.94	2.9	-0.5

## CHAPTER 4

### RESULTS

## **CHAPTER 5**

### **SUMMARY AND CONCLUSIONS**

Bibliographies can be written by hand or by using a textbib file. To use a textbib file, you'll need a style sheet such as that used with AMS.



## REFERENCES

- Barber, K., G. Mullendore, and J. Alexander (2017), Impacts of model resolution and estimations method on convective–turbulence prediction, *In preparation*.
- Bethan, S., G. Vaughan, S. J. Reid (1996), A comparison of ozone and thermal tropopause heights and the impact of tropopause definition on quantifying the ozone content of the troposphere, *Quarterly Journal of the Royal Meteorological Society*, **122**, 929–944.