

TABLE OF CONTENTS

Section		Page
A	INTRODUCTION	A-1
1	FLOW FIELD.....	1-1
2	NOSE AND LEADING EDGES.....	2-1
	2.1 General Three-Dimensional Stagnation Point.....	2-1
	2.2 Swept Leading Edges.....	2-1
	2.3 Bow Shock Impingement	2-2
	2.4 Effects of Mass Addition.....	2-3
3	BASIC BODY.....	3-1
	3.1 Two-Dimensional Flow (Planar or Axisymmetric).....	3-1
	3.1.1 Laminar.....	3-1
	3.1.2 Turbulent.....	3-2
	3.2 Three-Dimensional Flow Effects	3-4
	3.3 Separation Effects.....	3-5
	3.4 Mass Addition Effects.....	3-6
	3.4.1 Laminar Boundary Layer.....	3-6
	3.4.2 Turbulent Boundary Layer.....	3-6
4	BOUNDARY LAYER TRANSITION.....	4-1
	4.1 Two-Dimensional Flow (Planar or Axisymmetric).....	4-2
	4.2 Three-Dimensional Flow Effects	4-3
	4.3 Separated Flow Effects	4-4
	4.4 Effects of Mass Addition	4-4
	4.5 Summary.....	4-4
5	CONTROL SURFACE INTERFERENCE HEATING.....	5-1
	5.1 Fins (Turbulent Flow).....	5-1
	5.2 Flaps.....	5-2
	5.3 Incipient Separation Criteria	5-2
6	SURFACE ROUGHNESS AND DISCONTINUITIES	6-1
	6.1 Steps	6-1
	6.2 Cavities.....	6-3
	6.3 Wavy Walls	6-4
7	EFFECT OF UNCERTAINTIES IN LOCAL FLOW PROPERTIES.....	7-1
8	CONCLUSIONS	8-1
9	REFERENCES	9-1