



CONTENTS

1	About This Guide.....	1
2	The Journey to Jupiter	3
	VEEGA–The Solution	3
	Liftoff!.....	4
	How Aliens Would See Us	5
	The High-Gain Antenna.....	6
	Cruising the Asteroid Belt.....	6
	The Comet Spectacle–S/L-9	8
	Probe Release and ODM.....	10
	The Tape Recorder Challenge	10
3	The Planet Jupiter.....	13
	Early Explorations.....	13
	The Atmosphere.....	14
	The Interior	16
	The Ring.....	17
	The Magnetosphere.....	17
	The Satellites.....	19
	What Do We Hope To Learn?	22
4	The Galileo Orbiter.....	25
	Spacecraft Subsystems.....	26
	Scientific Investigations.....	27
5	The Galileo Probe.....	39
	Deceleration Module.....	40
	Descent Module	40
	Engineering Subsystems	40
	The Science Instruments	42
	Doppler Wind Experiment.....	45
6	Arrival at Jupiter	47
	So Much To Do.....	47
	We Fly By Two Moons.....	48
	Io Has An Iron Core!.....	48
	And A Magnetosphere?	48
	A Close Approach.....	49
	The Probe Descent	49

CONTENTS (contd)

	The Fate of the Galileo Probe	51
	JOI—A Critical Maneuver.....	51
	Earth Occultation	52
7	Probe Science Results	53
	Atmospheric Structure	54
	Helium Abundance	55
	Chemical Composition.....	55
	Clouds	56
	Thermal/Solar Energy Profiles.....	56
	Lightning.....	57
	A New Radiation Belt.....	57
	Strong Winds.....	58
	An Atypical Entry Site?	58
8	The Tour	59
	Orbit Names	60
	The Orbiter at Work.....	60
	The Science Opportunity	61
	Aiming the Spacecraft.....	62
	Getting a Lift.....	64
	Pointing the Spacecraft	65
	Telecommunications	65
	The Trip Detailed	68
	A Unique Experience	68
	Appendix	A-1
	Galileo Mission Overview	A-3
	Quick—Look Orbit Facts.....	A-5