

**CONTENTS**

**I. INTRODUCTION, METHODOLOGY & PRODUCT DEFINITIONS**

Study Reliability and Reporting Limitations ..... I-1  
 Disclaimers ..... I-2  
 Data Interpretation & Reporting Level ..... I-2  
     Quantitative Techniques & Analytics ..... I-3  
 Product Definitions and Scope of Study ..... I-3  
     Air Traffic Control Communications Equipment ..... I-4  
     Air Traffic Control Navigation Equipment ..... I-4  
     Air Traffic Control Surveillance Equipment ..... I-4

**II. EXECUTIVE SUMMARY**

**1. Market Overview** ..... II-1

Regional Overview ..... II-1  
 Segment Perspective ..... II-1  
 Market Structure ..... II-2  
 Global ATC Equipment Leaders ..... II-2

*Table 1: World Market for Air Traffic Control Equipment (2004 & 2005): Market Shares of Leading Players for Northrop Grumman, Thales ATM, Raytheon Company, Frequentis, and Others (includes corresponding Graph/Chart)* ..... II-3

Air Traffic Control Equipment – A Historic Review ..... II-3

**2. Product Overview** ..... II-4

Evolution ..... II-4  
 Air Traffic Control Equipment ..... II-4  
     ATC Communications Equipment ..... II-5  
         Telephone Systems ..... II-5  
             Private Automatic Exchange (PAX) ..... II-5  
             Public Automatic Branching Exchange (PABX) ..... II-5  
         Speech Processing Equipment (SPE) ..... II-5  
         Automatic Terminal Information System (ATIS) ..... II-6  
         Automatic Volmet Broadcast System (AVBS) ..... II-6  
         Microwave Link System (MLS) ..... II-6  
         Aeronautical Information DataBase (AIDB) System ..... II-6  
     ATC Radio & Recording Equipment ..... II-6  
         ATC Radio Equipment ..... II-6  
             High Frequency/Very High Frequency/Ultra High Frequency (HF/VHF/UHF) Communication Equipment ..... II-7  
             Direction Finding (DF) Equipment ..... II-7  
         ATC Recording Equipment ..... II-7  
             Voice Recording System (VRS) ..... II-7  
                 Multichannel Voice Recorders ..... II-7  
                 Digital Voice Recorder System ..... II-7  
                 Cockpit Voice Recorder ..... II-8  
             Video Recording System ..... II-8  
         ATC Switching Equipment ..... II-8  
             Voice Communication Switching System (VCSS) ..... II-8  
             Automatic Message Switching System (AMSS) ..... II-8  
             Rapid Deployment Voice Switch (RDVS) ..... II-9

ATC Navigation Equipment ..... II-9  
     ATC En Route Navigation Aids ..... II-9  
     ATC Landing Aids ..... II-10  
         Instrument Landing System ..... II-10  
         Doppler VHF Omni-Directional Range ..... II-10  
         Distance Measuring Equipment ..... II-10  
         Non-Directional Beacon ..... II-10  
     ATC Surveillance Equipment ..... II-10  
         Radio Detecting and Ranging (RADAR) ..... II-11  
             Types of Radar ..... II-11  
                 Primary Surveillance Radar ..... II-11  
                     Weather Radar ..... II-12  
                     Airport and Airways Surveillance RADAR (AASR) ..... II-12  
                     Airport Surveillance RADAR (ASR) ..... II-12  
                     Precision Approach RADAR (PAR) ..... II-12  
                 Secondary Surveillance Radar ..... II-12  
                 ATCRBS Components ..... II-13  
                 Benefits of ATCRBS ..... II-13  
         Automatic Dependence Surveillance Systems ..... II-13  
             ADS Advantages ..... II-14  
     The Integrated Global Surveillance and Guidance System (IGSAGS) – The New Age ATC Equipment ..... II-14  
         IGSAGS Surveillance Systems ..... II-14  
         IGSAGS Navigation Equipment ..... II-15  
         Collision Warning & Navigation Display ..... II-15  
         IGSAGS Landing Guidance ..... II-15  
         IGSAGS Communication Equipment ..... II-15  
         IGSAGS Spectrum & Aircraft Links ..... II-15  
     Widely Used ATC Equipment ..... II-15

**3. Technological Developments** ..... II-17

Technologies: ASPARCS and RLST ..... II-17  
 Technology: Standard Terminal Automation Replacement System (STARS) & Digital Airport Surveillance Radar (DASR) ..... II-17

**4. Product Launches/Developments** ..... II-19

COMSOFT Rolls Out New AMHS ..... II-19  
 EUROCONTROL and IntuiLab Unveil MAMMI Interface ..... II-19  
 SELEX Launches ATC Radar Systems in Findel Airport ..... II-19  
 DSN and Thales Develop Air Server ..... II-19  
 SITA Introduces Voice Exchange Service ..... II-20  
 Micro Nav Launches Airport Builder Tool, Image Generator and Aircraft Model Editor ..... II-20  
 ADS Launches New Aircraft Datalink Network System ..... II-20  
 EUROCONTROL Unveils Toolkit to Prevent Airspace Infringements ..... II-20  
 EUROCONTROL Launches New Alerting Service ..... II-21  
 Harris Corporation Unveils Leitch NEO SuiteView ..... II-21  
 New Automated Flight Data System from Northrop Grumman ..... II-21  
 MITRE Corporation Tests Multi-Center Traffic Management Advisor System ..... II-21  
 New High-Speed Data System from Honeywell and Thales ..... II-21

### CONTENTS

EEC Presents Project Cames.....	II-22	CAA Approves to Refurbish ATC Operations in Newcastle Area.....	II-31
IBM-based ATC IT System Becomes Operational.....	II-22	Airservices Australia Eyes Indian Aviation Sector.....	II-31
Harris Corp. Launches ANICS Phase II.....	II-22	Vietnamese CAA Inaugurates Eurocat.....	II-31
<b>5. Recent Industry Activity.....</b>	<b>II-23</b>	Apptis and NAV CANADA Form Strategic Partnership.....	II-31
Harris Acquires Multimax.....	II-23	NAV Portugal Invests €6 Million in New Air Traffic Control Room.....	II-31
The Carlyle Group Takes Over ARINC.....	II-23	Concurrent Computer Delivers ATC Systems to DFS.....	II-32
COMSOFT Secures Contract for Quadrant ADS-B from GCAA.....	II-23	NAV Acquires LNS Systems.....	II-32
Northrop Grumman Secures Contracts for Air Traffic Control Upgrade Projects.....	II-23	L-3 Communications Acquires Titan Corporation.....	II-32
CAAS Selects HITT & Era for Deploying A-SMGCS.....	II-24	Optelecom Acquires NKF Electronics.....	II-32
Rockwell and ARINC Ink Agreement for Broadband Offering.....	II-24	Kongsberg to Buyout Gallium.....	II-32
General Dynamics Bags Order from FAA.....	II-25	Telephonics Bags ATC Equipment Supply Contracts.....	II-32
Indra and Northrop Grumman Enter into a Licensing Agreement.....	II-25	BAE and Finmeccanica in a EuroSystems Transaction Agreement.....	II-33
GWDI Expands Business in Europe.....	II-25	Ireland and the UK Evaluates on Maintaining Integrated ATC.....	II-33
NICE Systems to Provide Air Traffic Control Solutions.....	II-25	SITA Pacts with DFS on Improving German ATC Communications.....	II-33
Korean Air Renews Contract with ARINC.....	II-26	Northrop Grumman Bags Contract to Provide ATC Voice-Communications Systems.....	II-33
Formation Secures AIR Systems Order from SELEX.....	II-26	Thales in a Contract with EUROCONTROL.....	II-33
Frequentis to Expand VCX Radio Network in Germany.....	II-26	Thales Receives Contract from NANSC.....	II-34
Rannoch Acquires ERA.....	II-26	EIB Lends to Upgrade ATC Infrastructure in Serbia and Montenegro.....	II-34
Thales Joins Hands with TEDC for Air Traffic Control.....	II-27	Raytheon Awarded Contract for Replacement of Iraq's ATC System.....	II-34
ARINC Provides Iridium-based Solutions to Cathay Pacific.....	II-27	Lockheed Martin Modernizes Albania's ATC Systems.....	II-34
ARINC and Network Telex Partner for Fax / Telex Services.....	II-27	Indra Sistemas Wins Contract for Renewal of Panama's ATC System.....	II-35
ARINC Launches Data Link Services for Gulfstream PlaneView Cockpits.....	II-28	France and Russia to Float Joint Venture Company for Manufacturing ATC Equipment.....	II-35
Galileo's Radar system Completes Validation Phase.....	II-28	Indra Sistemas Wins ATC Systems Contract.....	II-35
Dassault Falcon Selects SKYLinkSM for New Falcon 7X.....	II-28	Indra Earns Contract for Renewal of Moroccan ATC Systems.....	II-35
RSL Bags Contract from Avinor.....	II-28	PaAmSat and Telesat Win Govt. Contract for ATC System.....	II-35
Airservices Australia Awards Contract to Sensis.....	II-28	Telephonics Wins Contracts from South Korea and China.....	II-36
ARINC and BCS Extend GLOBALinkSM VHF to 4 Indian Airports.....	II-28	Optelecom Secures ATC Upgrade Contract from BFI Optilas.....	II-36
Video Display Inks Acquisition Agreement with EDL.....	II-29	UK's NATS to Purchase Oceanic ATC from Nav Canada.....	II-36
AJT and SolaCom to Offer New Voice Communications Equipment.....	II-29	Thales Supplies New Approach ATC System in Mexico.....	II-37
ARINC and Jet Aviation Enter into Sale and Distribution Agreement.....	II-29	BARCO Acquires Orthogon AG.....	II-37
Park Air Systems Joins RADA.....	II-29	Thales ATM Receives Orders from Italy.....	II-37
RSL Bags Contract from Peel Airports Group.....	II-29	EBRD Sanctions Loan for Tajikistan's ATC Modernization Project.....	II-37
Park Air Bags VCSS Contract in UAE.....	II-30	Raytheon Wins Contract for Deployment of ATC Systems in Abu Dhabi.....	II-37
Park Air Systems Bags Contract to Replace SMGCS.....	II-30	Sensis Earns Airport Surface Detection Equipment Contract from FAA.....	II-38
Park Air Systems to Renovate Control Tower at Coventry International Airport.....	II-30	Indra IT Wins ATC Contract for Spanish Airport.....	II-38
Indra Bags Contract from AENA.....	II-30	FAA Awards ATOP System Installation Contract to Lockheed Martin.....	II-38
Raytheon Receives Contract to Manufacture Radar Warning Receivers.....	II-30	Indra IT Wins ATC Equipment Supply Contract from Latin America.....	II-38
Gallium Software Receives ATC Radar Simulator Contract from GAVTC.....	II-30	Thales ATM Upgrades ATC Systems of Sri Lanka and Egypt.....	II-38
Thales Receives Contract from Chile's Civil Aviation Authority.....	II-31		

### CONTENTS

Telephonics Signs Agreement with Chinese ATM Bureau of the Civil Aviation Administration .....	II-39	<i>Table 4: World Historic Review for Air Traffic Control Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart) .....</i>	II-52
Griffon Signs Contractual Agreement with BAE SYSTEMS .....	II-39	<i>Table 5: World 15-Year Perspective for Air Traffic Control Equipment by Geographic Region – Percentage Breakdown of Value Sales for USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart).....</i>	II-53
Alenia-Marconi Earns Contract from Uzbekistan’s Civil Aviation Administration .....	II-39	<i>Table 6: World Recent Past, Current &amp; Future Analysis for Air Traffic Control Communication Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of the World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart) .....</i>	II-54
CNS Systems and Sectra Win Swedish ATC Systems Contract .....	II-39	<i>Table 7: World Long-term Projections for Air Traffic Control Communication Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart) .....</i>	II-55
NAV Canada Selects Rannoch to Source AirScene Surveillance Equipment.....	II-39	<i>Table 8: World Recent Past, Current &amp; Future Analysis for Air Traffic Control Communication Equipment by Product Segment– ATC Communication Systems, ATC Radio &amp; Recording Equipment, and ATC Switching Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart) .....</i>	II-56
ComView Installs Largest Air Traffic Control Simulator ....	II-40	<i>Table 9: World Long-term Projections for Air Traffic Control Communication Equipment by Product Segment – ATC Communication Systems, ATC Radio &amp; Recording Equipment, and ATC Switching Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart) .....</i>	II-56
Northrop Grumman Commissions Turnkey ATC System in Morocco .....	II-40	<i>Table 10: World Historic Review for Air Traffic Control Communication Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart) .....</i>	II-57
Baltic States Set Up RASCC Project.....	II-40	<i>Table 11: World Historic Review for Air Traffic Control Communication Equipment by Product Segment– ATC Communication Systems, ATC Radio &amp; Recording Equipment, and ATC Switching Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart).....</i>	II-57
Lockheed Martin Completes Common ARTS ATC System Upgrade.....	II-40	<i>Table 12: World 15-Year Perspective for Air Traffic Control Communication Equipment by Geographic Region – Percentage Breakdown of Value Sales for USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart) .....</i>	II-58
<b>6. Focus on Select Global Players.....</b>	<b>II-41</b>		
Advanced Navigation & Positioning Corporation Inc. (USA) .....	II-41		
Aeronav Group (Canada) .....	II-41		
BAE Systems Plc (UK) .....	II-41		
Becker Avionics Inc. (USA) .....	II-42		
C.N.S. Systems AB (Sweden).....	II-42		
Frequentis AG (Austria).....	II-43		
Gallium Software Inc. (Canada).....	II-43		
Harris Corporation (USA).....	II-44		
Indra Sistemas S.A (Spain) .....	II-44		
InterScan Navigation Systems (Australia) .....	II-44		
L-3 Communication Titan Group (USA).....	II-45		
Lockheed Martin Corporation (USA).....	II-45		
Northrop Grumman Corp. (USA).....	II-46		
Optelecom-NKF Inc. (USA) .....	II-46		
Park Air Systems (UK) .....	II-46		
Pelorus Navigation Systems, Inc. (Canada).....	II-47		
Raytheon Company (USA) .....	II-47		
Sectra Communications AB.....	II-47		
Sierra Nevada Corporation (USA) .....	II-47		
SolaCom Technologies Inc. (Canada).....	II-48		
Telephonics Corp. (USA).....	II-48		
Thales ATM S.A. (France).....	II-49		
<b>7. Global Market Perspective.....</b>	<b>II-50</b>		
<i>Table 2: World Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of the World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart) .....</i>	II-50		
<i>Table 3: World Long-term Projections for Air Traffic Control Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart) .....</i>	II-51		

### CONTENTS

<p><i>Table 13: World 15-Year Perspective for Air Traffic Control Communication Equipment by Product Segment – Percentage Breakdown of Value Sales for ATC Communication Systems, ATC Radio &amp; Recording Equipment and ATC Switching Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart) .....</i></p>	II-59	<p><i>Table 22: World Recent Past, Current &amp; Future Analysis for Air Traffic Control Surveillance Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of the World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart) .....</i></p>	II-65
<p><i>Table 14: World Recent Past, Current &amp; Future Analysis for Air Traffic Control Navigation Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of the World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart) .....</i></p>	II-60	<p><i>Table 23: World Long-term Projections for Air Traffic Control Surveillance Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart) .....</i></p>	II-66
<p><i>Table 15: World Long-term Projections for Air Traffic Control Navigation Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart) .....</i></p>	II-61	<p><i>Table 24: World Recent Past, Current &amp; Future Analysis for Air Traffic Control Surveillance Equipment by Product Segment– ATC Radar Based Equipment, and Automatic Dependence Surveillance Systems Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart) .....</i></p>	II-67
<p><i>Table 16: World Recent Past, Current &amp; Future Analysis for Air Traffic Control Navigation Equipment by Product Segment– ATC En Route Navigation Aids, and ATC Landing Aids Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart) .....</i></p>	II-62	<p><i>Table 25: World Long-term Projections for Air Traffic Control Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart) .....</i></p>	II-67
<p><i>Table 17: World Long-term Projections for Air Traffic Control Navigation Equipment by Product Segment – ATC En Route Navigation Aids, and ATC Landing Aids Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart) .....</i></p>	II-62	<p><i>Table 26: World Historic Review for Air Traffic Control Surveillance Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart) .....</i></p>	II-68
<p><i>Table 18: World Historic Review for Air Traffic Control Navigation Equipment by Geographic Region – USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart) .....</i></p>	II-63	<p><i>Table 27: World Historic Review for Air Traffic Control Surveillance Equipment by Product Segment– ATC Radar Based Equipment, and Automatic Dependence Surveillance Systems Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart) .....</i></p>	II-68
<p><i>Table 19: World Historic Review for Air Traffic Control Navigation Equipment by Product Segment– ATC En Route Navigation Aids, and ATC Landing Aids Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart) .....</i></p>	II-63	<p><i>Table 28: World 15-Year Perspective for Air Traffic Control Surveillance Equipment by Geographic Region – Percentage Breakdown of Value Sales for USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart) .....</i></p>	II-69
<p><i>Table 20: World 15-Year Perspective for Air Traffic Control Navigation Equipment by Geographic Region – Percentage Breakdown of Value Sales for USA, Canada, Japan, Europe, Asia–Pacific (excluding Japan) and Rest of World Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart) .....</i></p>	II-64	<p><i>Table 29: World 15-Year Perspective for Air Traffic Control Surveillance Equipment by Product Segment – Percentage Breakdown of Value Sales for ATC Radar Based Equipment and Automatic Dependence Surveillance Systems Markets for Years 1998, 2008 &amp; 2012 .....</i></p>	II-69
<p><i>Table 21: World 15-Year Perspective for Air Traffic Control Navigation Equipment by Product Segment – Percentage Breakdown of Value Sales for ATC En Route Navigation Aids, and ATC Landing Aids Markets for Years 1998, 2008 &amp; 2012 .....</i></p>	II-64		

### III. MARKET

<b>1. The United States .....</b>	III-1
<b>A. Market Analysis .....</b>	III-1
Current and Future Analysis .....	III-1
FAA to Develop Funding Mechanism .....	III-1

### CONTENTS

Next Gen ATC Equipment on Fast Track.....	III-2		
FAA in a Joint Effort with EC to Improve ATC Systems in Transatlantic Route.....	III-2		
FAA to Use Automatic Dependent Surveillance-Broadcast.....	III-2		
Historic Review.....	III-2		
Product Launches.....	III-3		
Strategic Corporate Developments.....	III-4		
Review of Key Players.....	III-10		
<b>B. Market Analytics</b> .....	III-14		
<i>Table 30: US Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....			
	III-14		
<i>Table 31: US Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....			
	III-15		
<i>Table 32: US Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....			
	III-15		
<i>Table 33: US 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> .....			
	III-16		
<b>2. Canada</b> .....	III-17		
<b>A. Market Analysis</b> .....	III-17		
Current and Future Analysis.....	III-17		
Historic Review.....	III-17		
Strategic Corporate Developments.....	III-17		
Review of Key Players.....	III-18		
<b>B. Market Analytics</b> .....	III-20		
<i>Table 34: Canadian Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....			
	III-20		
<i>Table 35: Canadian Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....			
	III-20		
<i>Table 36: Canadian Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....			
	III-21		
<i>Table 37: Canadian 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> .....			
	III-21		
<b>3. Japan</b> .....	III-22		
<b>A. Market Analysis</b> .....	III-22		
Current and Future Analysis.....	III-22		
Historic Review.....	III-22		
<b>B. Market Analytics</b> .....	III-22		
<i>Table 38: Japanese Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....			
	III-22		
<i>Table 39: Japanese Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....			
	III-23		
<i>Table 40: Japanese Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....			
	III-23		
<i>Table 41: Japanese 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> .....			
	III-24		

### CONTENTS

<b>4. Europe</b> .....	III-25		
<b>A. Market Analysis</b> .....	III-25		
Current and Future Analysis.....	III-25		
Historic Review.....	III-25		
Product Launches.....	III-25		
Strategic Corporate Development.....	III-26		
<b>B. Market Analytics</b> .....	III-27		
<i>Table 42: European Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Geographic Region – France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....	III-27		
<i>Table 43: European Long-term Projections for Air Traffic Control Equipment by Geographic Region – France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....	III-28		
<i>Table 44: European Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....	III-28		
<i>Table 45: European Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....	III-29		
<i>Table 46: European Historic Review for Air Traffic Control Equipment by Geographic Region – France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....	III-29		
<i>Table 47: European Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....	III-30		
<i>Table 48: European 15-Year Perspective for Air Traffic Control Equipment by Geographic Region – Percentage Breakdown of Value Sales for France, Germany, Italy, UK, Spain, Russia and Rest of Europe Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> .....	III-30		
			<i>Table 49: European 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> ..... III-31
		<b>4a. France</b> .....	III-32
		<b>A. Market Analysis</b> .....	III-32
		Current and Future Analysis.....	III-32
		Historic Review.....	III-32
		Product Launches.....	III-32
		Strategic Corporate Developments.....	III-33
		Thales ATM S.A. – A Key Player.....	III-34
		<b>B. Market Analytics</b> .....	III-35
		<i>Table 50: French Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....	III-35
		<i>Table 51: French Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....	III-35
		<i>Table 52: French Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....	III-36
		<i>Table 53: French 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> .....	III-36
		<b>4b. Germany</b> .....	III-37
		<b>A. Market Analysis</b> .....	III-37
		Current and Future Analysis.....	III-37
		Historic Review.....	III-37
		Strategic Corporate Developments.....	III-37
		<b>B. Market Analytics</b> .....	III-38
		<i>Table 54: German Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....	III-38

### CONTENTS

<i>Table 55: German Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....	III-39
<i>Table 56: German Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....	III-39
<i>Table 57: German 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> .....	III-40
<b>4c. Italy</b> .....	III-41
<b>A. Market Analysis</b> .....	III-41
Current and Future Analysis.....	III-41
Historic Review.....	III-41
Strategic Corporate Developments.....	III-41
<b>B. Market Analytics</b> .....	III-42
<i>Table 58: Italian Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....	III-42
<i>Table 59: Italian Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....	III-42
<i>Table 60: Italian Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....	III-43
<i>Table 61: Italian 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> .....	III-43
<b>4d. The United Kingdom</b> .....	III-44
<b>A. Market Analysis</b> .....	III-44
Current and Future Analysis.....	III-44
Historic Review.....	III-44
Product Launches.....	III-44
Strategic Corporate Developments.....	III-45
Key Players .....	III-46
<b>B. Market Analytics</b> .....	III-47
<i>Table 62: UK Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2010 (includes corresponding Graph/Chart)</i> .....	III-47
<i>Table 63: UK Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....	III-48
<i>Table 64: UK Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i> .....	III-48
<i>Table 65: UK 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i> .....	III-49
<b>4e. Spain</b> .....	III-50
<b>A. Market Analysis</b> .....	III-50
Current and Future Analysis.....	III-50
Historic Review.....	III-50
Strategic Corporate Developments.....	III-50
Indra Sistemas S.A – A Key Spanish IT Solutions Company.....	III-52
<b>B. Market Analytics</b> .....	III-52
<i>Table 66: Spanish Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i> .....	III-52
<i>Table 67: Spanish Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i> .....	III-53

### CONTENTS

<p><i>Table 68: Spanish Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i>.....</p>	III-53
<p><i>Table 69: Spanish 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i>.....</p>	III-54
<b>4f. Russia</b> .....	III-55
<b>A. Market Analysis</b> .....	III-55
Current and Future Analysis.....	III-55
Historic Review.....	III-55
<b>B. Market Analytics</b> .....	III-55
<p><i>Table 70: Russian Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i>.....</p>	III-55
<p><i>Table 71: Russian Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i>.....</p>	III-56
<p><i>Table 72: Russian Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i>.....</p>	III-56
<p><i>Table 73: Russian 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i>.....</p>	III-57
<b>4g. Rest of Europe</b> .....	III-58
<b>A. Market Analysis</b> .....	III-58
Current and Future Analysis.....	III-58
A Regional Perspective.....	III-58
UK Companies Plan to Enter Ukraine ATC Market.....	III-58
Russia Undertakes Massive Rationalization Program.....	III-58
Bulgaria Depends Heavily on Imports for ATC Requirements.....	III-58
Historic Review.....	III-58
Croatian ATC Market.....	III-59
Hungarian ATC Market.....	III-59
Product Launches.....	III-59
Strategic Corporate Developments.....	III-60
Review of Key Players.....	III-63
<b>B. Market Analytics</b> .....	III-65
<p><i>Table 74: Rest of Europe Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i>.....</p>	III-65
<p><i>Table 75: Rest of Europe Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart)</i>.....</p>	III-65
<p><i>Table 76: Rest of Europe Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart)</i>.....</p>	III-66
<p><i>Table 77: Rest of Europe 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart)</i>.....</p>	III-66
<b>5. Asia-Pacific</b> .....	III-67
<b>A. Market Analysis</b> .....	III-67
Current and Future Analysis.....	III-67
Historic Review.....	III-67
A Sneak Preview of Key Asian Markets.....	III-67
China.....	III-67
Opportunities Galore for Foreign Companies.....	III-68
Thales Moves Swiftly in China.....	III-68
India.....	III-68
Challenges Facing Indian ATC Market.....	III-68
South Korea.....	III-69
Product Launches.....	III-69
Strategic Corporate Developments.....	III-70
<b>B. Market Analytics</b> .....	III-72
<p><i>Table 78: Asia-Pacific Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart)</i>.....</p>	III-72

**CONTENTS**

<p><i>Table 79: Asia-Pacific Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart).....</i></p>	<p>III-73</p>
<p><i>Table 80: Asia-Pacific Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart).....</i></p>	<p>III-73</p>
<p><i>Table 81: Asia-Pacific 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart).....</i></p>	<p>III-74</p>
<p><b>6. Rest of World.....</b></p>	<p>III-75</p>
<p>    <b>A. Market Analysis .....</b></p>	<p>III-75</p>
Current and Future Analysis.....	III-75
Historic Review.....	III-75
The ATC Market Scenario in Southern Africa .....	III-75
Interscan Navigation Systems – A Key Player in Australia .....	III-75
Strategic Corporate Developments.....	III-76
<p>    <b>B. Market Analytics .....</b></p>	<p>III-77</p>
<p>        <i>Table 82: Rest of World Recent Past, Current &amp; Future Analysis for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2001 through 2010 (includes corresponding Graph/Chart) .....</i></p>	<p>III-77</p>
<p>        <i>Table 83: Rest of Europe Long-term Projections for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 2011 through 2015 (includes corresponding Graph/Chart).....</i></p>	<p>III-78</p>
<p>        <i>Table 84: Rest of World Historic Review for Air Traffic Control Equipment by Product Segment – Communications Equipment, Navigation Equipment and Surveillance Equipment Markets Independently Analyzed with Annual Sales Figures in US\$ Million for Years 1991 through 2000 (includes corresponding Graph/Chart).....</i></p>	<p>III-78</p>
<p>        <i>Table 85: Rest of World 15-Year Perspective for Air Traffic Control Equipment by Product Segment – Percentage Breakdown of Value Sales for Communications Equipment, Navigation Equipment and Surveillance Equipment Markets for Years 1998, 2008 &amp; 2012 (includes corresponding Graph/Chart).....</i></p>	<p>III-79</p>

**IV. COMPETITIVE LANDSCAPE**