

The **comsys** Maritime VSAT Report

2nd edition

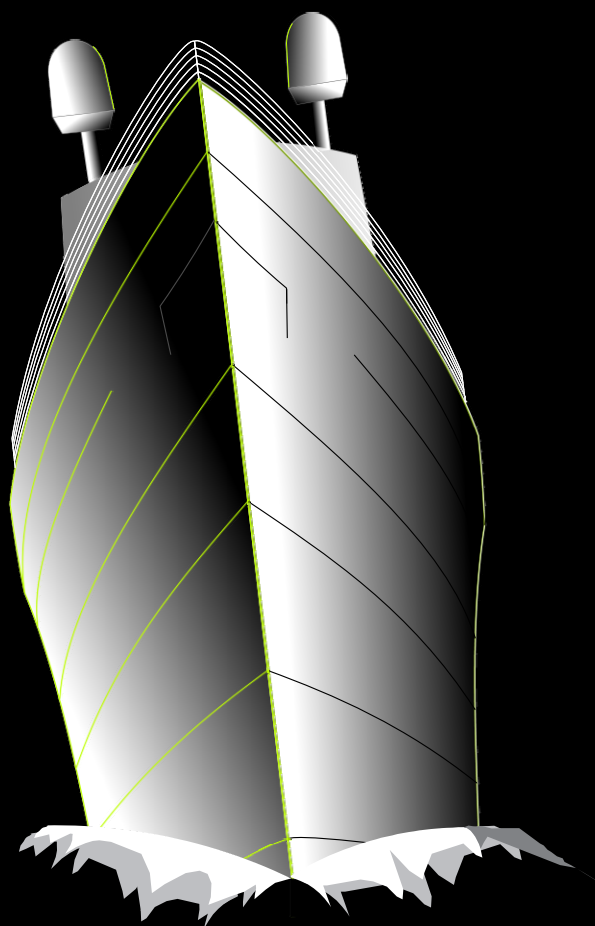




Table of Contents

1. Introduction	7
1.1. Data Sources & Study Methodology.....	10
2. The Maritime Market	11
2.1. Overview.....	11
2.1.1. VSAT Maritime Customer Database Methodology	12
2.2. L-band Maritime Services	12
2.2.1. Inmarsat	12
2.2.2. Iridium.....	17
2.2.3. Other L-Band Providers	19
2.2.4. Other Satellite Services	20
2.2.4.1. Hybrid FSS/MSS.....	20
2.3. Alternative Maritime Communication Services	21
2.3.1. Offshore Fibre Systems	21
2.3.2. Microwave Networks	23
2.3.3. Offshore Cellular.....	24
2.3.4. Land-based Cellular	24
2.3.5. WiMAX & WiFi.....	24
2.3.6. Marginal Technologies.....	25
3. Maritime VSAT Services	26
3.1. Services	30
3.1.1. Current Operator Analysis	30
3.1.2. Service Revenues	37
3.2. Hardware	43
3.2.1. Stabilised Antenna Systems.....	43
3.2.2. Access Types & Modems	56
3.3. Segmentation	59
3.4. Geographic Distribution	63
4. Market Sizing	65
4.1. Total Market Size	65
4.1.1. Market Database Methodology.....	65
4.1.2. Maritime Market Growth	66
4.2. Market Drivers & Inhibitors.....	75
4.2.1. Deck Real-Estate & Antenna Siting.....	75
4.2.2. Installation.....	76
4.2.3. Support & Logistics	77
4.2.4. Crew	77
4.2.5. Value Added Services.....	79
4.2.6. Regulations.....	80
4.2.7. Maritime Industry Structure.....	81
4.2.8. Space Segment.....	82
4.3. Addressable & Potential Market Size	84
4.3.1. Oil & Gas Rigs and Platforms.....	85
4.3.2. High End Commercial.....	87
4.3.3. Military/Government	89
4.3.4. Commercial.....	91
4.3.5. Fishing	93
4.3.6. Leisure	95
4.3.7. Inland Waterways.....	99
4.4. Addressable Market Summary.....	102
5. Market Forecasts	103
5.1. Vessels in Service Forecasts	105



5.1.1.	Most Likely	105
5.1.2.	Optimistic.....	106
5.2.	Service Revenue Forecasts	107
5.2.1.	Most Likely	107
5.2.2.	Optimistic.....	108
5.3.	Stabilised Antenna Forecasts	109
6.	Sources.....	111
7.	Glossary & Abbreviations	115
7.1.	COMSYS Regional Definitions	115
7.2.	Length Conversion Table	116
7.3.	Abbreviations.....	116

List of Tables

Table 1 - O&G and Maritime VSAT Growth by Operator, Vessels in Service 04-09.....	32
Table 2 - Maritime Stabilised VSAT Growth by Operator, Vessels in Service 04-09	34
Table 3 - All Stabilised Antenna VSAT Service Revenue Growth by Operator, 04-09	37
Table 4 - Maritime Stabilised VSAT Service Revenue Growth by Operator, 04-09.....	39
Table 5 - Stabilised VSAT Antenna Manufacturer Sales, 04-09.....	54
Table 6 - Stabilised VSAT Antenna Production by Diameter.....	54
Table 7 - Known Stabilised Antenna System Summary	55
Table 8 - Stabilised VSAT Vessel Growth by Segment and Macro-Segment, 04-09.....	59
Table 9 - Stabilised VSAT Revenue Growth by Segment, 04-09.....	62
Table 10 - Gross Addressable Maritime Market for VSAT Systems	66
Table 11 - Growth of Rigs in Service and New Builds by Type, 05-09	70
Table 12 - European Fishing Vessels, 1995-2008.....	72
Table 13 - Total Market Size, O&G Rigs and Platforms by Type.....	85
Table 14 - Estimated O&G Rig/Platform Sub-Segment Addressable Potential.....	85
Table 15 - Current O&G Sub-Segment Penetration & Available Market	85
Table 16 - Total Market Size, High End Commercial by Segment and Weight	87
Table 17 - Estimated HE Commercial Sub-Segment Addressable Potential	88
Table 18 - Current HE Commercial Sub-Segment Penetration & Available Market.....	88
Table 19 - Total Market Size, Military/Government by Segment and Weight	89
Table 20 - Estimated Mil/Govt Sub-Segment Addressable Potential.....	90
Table 21 - Current Mil/Govt Segment Penetration & Available Market.....	90
Table 22 - Total Market Size, Commercial by Segment and Weight.....	91
Table 23 - Estimated Commercial Sub-Segment Addressable Potential	92
Table 24 - Current Commercial Segment Penetration & Available Market.....	92
Table 25 - Total Market Size, Fishing by Segment and Weight.....	93
Table 26 - Estimated Fishing Sub-Segment Addressable Potential	94
Table 27 - Current Fishing Segment Penetration & Available Market	94
Table 28 - Total Market Size, Leisure by Sub-Segment and Length	95
Table 29 - Estimated Leisure Sub-Segment Addressable Potential.....	96
Table 30 - Current Leisure Segment Penetration & Available Market.....	96
Table 31 - Total Market Size, Inland Waterways by Segment and Weight.....	99
Table 32 - Estimated Inland Sub-Segment Addressable Potential	100
Table 33 - Current Inland Segment Penetration & Available Market	100
Table 34 - Stabilised VSAT Addressable Market Summary	102
Table 35 - Forecast VSAT Market Growth, Sites in Service 06-14 (Most Likely)	105
Table 36 - Segment Summary Market Growth, Sites in Service 06-14 (Most Likely).....	105
Table 37 - Forecast Market Growth, Sites in Service 06-14 (Optimistic).....	106
Table 38 - Segment Summary Market Growth, Sites in Service 06-14 (Optimistic).....	106
Table 39 - Forecast Market Growth, Service Revenues 06-14 (Most Likely).....	107
Table 40 - Segment Summary Market Growth, Service Revenues 06-14 (Most Likely)	107



Table 41 - Forecast Market Growth, Service Revenues 06-14 (Optimistic).....	108
Table 42 - Segment Summary Market Growth, Service Revenues 06-14 (Optimistic)	108
Table 43 - Stabilised Antenna Forecast Production & Demand, 06-14 (Most Likely)	109
Table 44 - Stabilised Antenna Forecast Production & Demand, 06-14 (Optimistic).....	110

List of Figures

Figure 1 - Primary Research Interviews by Type.....	10
Figure 2 - Inmarsat Registered Maritime Terminals, 04-09	13
Figure 3 - Inmarsat Maritime Traffic Growth, 04-09	14
Figure 4 - Inmarsat vs. VSAT Maritime Revenue Growth Comparison, 02-09	15
Figure 5 - Net New Maritime Connections, Inmarsat vs VSAT.....	16
Figure 6 - Inmarsat FBB-500 Terminal (JRC)	16
Figure 7 - Iridium Maritime Terminal, Thrane & Thrane SC4000.....	18
Figure 8 - Iridium OpenPort Terminal & Router.....	18
Figure 9 - Thuraya Maritime Terminal.....	19
Figure 10 - BP's GoM Fiber Optic Network.....	22
Figure 11 - Fibre Networks in the North Sea.....	22
Figure 12 - Broadpoint's Gulf of Mexico Cellular Coverage.....	24
Figure 13 - Maritime VSAT Operator Growth, 2004-2010	26
Figure 14 - KVH ArcLight Ku-band Coverage	29
Figure 15 - Ship Equip/NewWave Broadband Ku-band Coverage.....	29
Figure 16 - O&G and Maritime VSAT Operator Market Share, Vessels in Service 2009 ...	30
Figure 17 - Oil & Gas and Maritime VSAT Growth by Operator, Vessels in Service 04-09 .	31
Figure 18 - Maritime Stabilised VSAT Growth by Operator, Vessels in Service 04-09.....	35
Figure 19 - Maritime VSAT Service Provider Market Share, Vessels in Service 2009	36
Figure 20 - All Stabilised Antenna VSAT Service Revenue Growth by Operator, 04-09.....	37
Figure 21 - All Stabilised Antenna VSAT Operator Service Revenue Shares, 2009.....	39
Figure 22 - Stabilised Antenna VSAT Service Revenue Growth by Operator, 04-09	40
Figure 23 - Maritime Stabilised Antenna VSAT Operator Service Revenue Shares, 2009..	42
Figure 24 - Sea Tel 4006 1.0 metre Antenna.....	43
Figure 25 - Sea Tel Sales and Revenue Performance, 02-09	44
Figure 26 - Orbit Marine Sales and Revenue Performance, 02-09	45
Figure 27 - Orbit AL-7103 "Orsat" 1.15 metre Antenna	46
Figure 28 - Stabilised VSAT Antenna Manufacturer Market Shares, 2009.....	47
Figure 29 - Schlumberger SpaceTrack Antenna	47
Figure 30 - Stabilised VSAT Antenna Manufacturer Unit Sales, 05-09	48
Figure 31 - Stabilised VSAT Antenna Manufacturer Market Shares, 05-09	48
Figure 32 - Stabilised VSAT Antenna Manufacturer Revenues, 05-09	49
Figure 33 - Stabilised VSAT Antenna Manufacturer Market Revenue Shares, 05-09	49
Figure 34 - Maritime Broadband C-Bird Stabilised Antenna	50
Figure 35 - KNS SuperTrack Z12 MK2 1.2 metre Antenna.....	50
Figure 36 - C2Sat 1.2 metre Antenna.....	51
Figure 37 - EPak 0.60 metre Antenna	52
Figure 38 - Intellian 0.60 metre Antenna	52
Figure 39 - WiWorld Marine Stabilised Antenna.....	53
Figure 40 - Antennas Produced by Diameter 2006-09.....	54
Figure 41 - Maritime VSAT Modem Installation Shares, 04-09	56
Figure 42 - Modem/Technology Deployment in the Maritime VSAT Segment, 2009	57
Figure 43 - Access Schemes in Service in the Maritime VSAT Segment, 05-09.....	58
Figure 44 - Stabilised VSAT Vessel Growth and Rates by Segment, 04-09.....	61
Figure 45 - Stabilised VSAT Revenue Growth by Segment and Macro-Segment, 04-09.....	62
Figure 46 - All Stabilised VSAT Antenna Services by Region.....	63
Figure 47 - All Stabilised VSAT Antenna Services by Regional Shares, 2009.....	63
Figure 48 - Forecast Growth of Major Commercial Shipping Sub-Segments, 2010-2014..	67



Figure 49 - Development of International Seaborne Trade, 1970-2008.....	68
Figure 50 - World Seaborne trade in 2008, by Type of Cargo & Country Group.....	68
Figure 51 - Baltic Dry Index/Dow Jones Industrial Average 2008 to mid-2010.....	69
Figure 52 - Growth of Rigs in Service by Type, 05-09.....	70
Figure 53 - Growth of New Build Rigs by Type, 05-09.....	70
Figure 54 - Global Floater versus Jackup Utilisation Trends.....	71
Figure 55 - Yachts 30m and Over, Post-War Completions 51-07.....	72
Figure 56 - European Inland Cargo Vessels by Weight (gt), 99-04.....	73
Figure 57 - ECDIS Implementation Schedule.....	81
Figure 58 - Total Market Size, O&G Rigs/Platforms by Segment & Weight.....	85
Figure 59 - Total Market Size, High End Commercial.....	87
Figure 60 - Total Market Size, High End Commercial by Segment & Weight.....	87
Figure 61 - Addressable High End Commercial Segment & Penetration.....	88
Figure 62 - Total Market Size, Military/Government.....	89
Figure 63 - Total Market Size, Military/Government by Segment & Weight.....	89
Figure 64 - Addressable Military/Government Segment & Penetration.....	90
Figure 65 - Total Market Size, Commercial.....	91
Figure 66 - Total Market Size, Commercial by Segment & Weight.....	91
Figure 67 - Addressable Commercial Segment & Penetration.....	92
Figure 68 - Total Market Size, Fishing.....	93
Figure 69 - Total Market Size, Fishing by Segment & Weight.....	93
Figure 70 - Addressable Fishing Segment & Penetration.....	94
Figure 71 - Total Market Size, Large Leisure Yachts and above.....	95
Figure 72 - Total Market Size, Leisure Yachts by Sub-Segment.....	95
Figure 73 - Addressable Leisure Yacht Segment & Penetration.....	96
Figure 74 - Total Market Size, Inland Waterways.....	99
Figure 75 - Total Market Size, Inland by Segment & Weight.....	100
Figure 76 - Addressable Inland Waterway Segment & Penetration.....	101
Figure 77 - Available & Addressable Stabilised VSAT Market Summary.....	102
Figure 78 - Forecast VSAT Market Growth, Sites in Service 06-14 (Most Likely).....	105
Figure 79 - Forecast VSAT Market Growth, Sites in Service 06-14 (Optimistic).....	106
Figure 80 - Forecast VSAT Market Growth, Sites in Service 06-14 (Most Likely).....	107
Figure 81 - Forecast VSAT Market Growth, Sites in Service 06-14 (Optimistic).....	108
Figure 82 - Stabilised Antenna Forecast Production & Demand, 05-14 (Most Likely).....	109
Figure 83 - Stabilised Antenna Forecast Production & Demand, 05-14 (Optimistic).....	110

