

# TABLE OF CONTENTS

<b>I. Current and Planned Floating Production Systems</b>	<b>11</b>
➤ Recent orders	12
➤ Recent deliveries	16
➤ What’s now being built	17
➤ Trend in order backlog	20
➤ Composition of order backlog	21
➤ Current fabrication and conversion activity	22
➤ Floater projects planned or under study	26
➤ Floating production database	32
➤ Most likely awards in Next 12 months	38
<b>II. Recent Developments</b>	<b>40</b>
➤ Floater Prospects in the Appraisal Stage	40
◇ Paon (Ivory Coast)	40
◇ NEW Curacao (Brazil)	40
◇ Barryroe (Ireland)	40
◇ NEW Wei / Kawa (Guyana)	41
◇ NEW Amrit / Moonga (India)	41
➤ Floater Prospects in the Planning Stage	42
◇ Graff-1 (Namibia)	42
◇ Leopard (Gabon)	42
◇ Browse (Calliance / Brecknock, Torosa) (Australia)	42
◇ Blacktip / Blacktip North (U.S.)	43
◇ Calypso / Cronos / Zeus (Cyprus)	43
◇ Gehem / Gendalo (Indonesia Deepwater Development) (Indonesia)	44
◇ NEW Jeruk (Indonesia)	44
◇ Salam / Patawali (Malaysia)	45
➤ Floaters in the Bidding or Final Design Stage	45
◇ Pecan (Ghana)	45
◇ Albacora Redevelopment (Brazil)	45
◇ Bay du Nord (Newfoundland)	46

◇ Ksi Lisims LNG (British Columbia)	46
◇ Delfin LNG (U.S.)	47
◇ Kaskida (U.S.)	47
◇ Buchan Redevelopment (U.K.)	48
◇ Bestari (Malaysia)	48
◇ Cadlao (Philippines)	49
◇ Lac Da Vang (Vietnam)	49
◇ NEW Mumbai High Redevelopment (India)	49
➤ Non-Sanctioned FPS Projects	50
◇ Xerelete (Brazil)	50
➤ New orders	51
◇ Cap Lopez FLNG and LNG FSO (Gabon)	51
◇ BM-C-33 FPSO (Brazil)	51
◇ Trion Semi & FSO (Mexico)	52
◇ Fast4Ward Hull #8 FPSO (TBD)	52
➤ Systems on Order	52
◇ Leopold Sedar Senghor FPSO (Senegal)	52
◇ Atlanta (ex-OSX 2) FPSO (Brazil)	53
◇ P 82 FPSO (Brazil)	53
◇ Polvo FPSO (Brazil)	53
◇ Sepetiba FPSO (Brazil)	54
◇ Mark II FLNG (TBD)	54
➤ Systems Recently Completed	55
◇ NEW Daishan FSO (Gabon)	55
◇ Almirante Barroso MV32 FPSO (Brazil)	55
◇ Anna Nery FPSO (Brazil)	55
◇ Bauhinia Spirit (ex-MOL FSRU Challenger) (Hong Kong)	56
◇ Hai Yang Shi You 123 FPSO (China)	56
◇ Nautica FSO (Yemen)	57

➤ Existing Systems	57
◇ Espoir Ivoirien FPSO (Cote d'Ivoire)	57
◇ Ngujima Yin FPSO (Australia)	57
◇ Western Isles FPSO (U.K.)	58
◇ Bien Dong 01 FSO (Vietnam)	58
◇ FPF 3 FPSO (Thailand)	58
◇ Pertamina Abherka FSO (Indonesia)	58
◇ PTSC Lam Son FPSO (Vietnam)	59
◇ Armada Sterling II FPSO (India)	59
◇ Safer FSO (Yemen)	59
➤ Available Systems	60
◇ Sendje Berge FPSO (Nigeria)	60
◇ Blue Raven (Ex-BW Athena) FPSO (TBD)	60
◇ Lakam-Ha (ex-Armada Claire) FPSO (TBD)	60
➤ Decommissioned Systems	61
◇ Fernan Vaz FSO (Gabon)	61
◇ Capixaba FPSO (Brazil)	61
◇ Fluminense FPSO (Brazil)	61
◇ P 32 FSO (Brazil)	62
➤ Units Under Repair	62
◇ Terra Nova FPSO (Canada)	62
<b>Appendix I: Projects in Planning Pipeline</b>	<b>63</b>
◇ Africa	63
◇ Australia	80
◇ Brazil	87
◇ Canada	98
◇ Gulf of Mexico	100
◇ Mediterranean	107
◇ North Sea	111

◇ South America (excluding Brazil)	118
◇ Southeast Asia	122
◇ China	138
◇ Southwest Asia and Middle East	139

**Appendix II: On Order FPS Units 143**

◇ FPSO 35 units	144
◇ FLNG 8 units	163
◇ FSRU 11 units	167
◇ SEMI 7 units	172
◇ FSO 10 units (3 oil, 7 LNG)	176
◇ MOPU 4 units	181
◇ Under Repair: 1 unit	183

**Appendix III: Installed and Available FPS Units 184**

◇ FPSO 166 units	184
◇ BARGE 10 units	204
◇ FLNG 5 units	206
◇ FSRU 17 units	207
◇ SEMI 35 units	212
◇ SPAR 21 units	217
◇ TLP 27 units	220
◇ FSO 111 units (99 Oil, 12 LNG)	224
◇ MOPU 17 units	237
◇ Available Vessels: 25 units	240

**Appendix IV: Historical Installed FPS Units 243**

## LIST OF ILLUSTRATIONS

➤ Fig 1. Total Units by FPS Type	11
➤ Fig 2. Total FPSOs by Status	11
➤ Fig 3. Available Units by Type and Year Idle	12
➤ Fig 4. Units Awarded by Quarter	13
➤ Fig 5. Units Awarded by Capex	13
➤ Fig 6. FPS Units Awarded	14
➤ Fig 7. FPS Awards in Relation to Oil Price	15
➤ Fig 8. Order Pace 2008-2023	15
➤ Fig 9. FPS Units Delivered	16
➤ Fig 10. FPS Units On Order by Hull Type	17
➤ Fig 11. FPS Units On Order by Contract Type (Lease/Own)	18
➤ Fig 12. Map of FPS Units on Order	19
➤ Fig 13. Order Backlog for FPS Units	20
➤ Fig 14. Orderbook by FPS Type	21
➤ Fig 15. Distribution of Units on Order by Yard	25
➤ Fig 16. Projects in Planning Pipeline by Region	26
➤ Fig 17. Projects in Planning Pipeline by Region-LNG&Non-LNG	27
➤ Fig 18. Deepwater and Ultra Deepwater Projects by Region	28
➤ Fig 19. Projects in Bidding and Final Design Stage by Region and Water Depth	29
➤ Fig 20. Projects in Planning Stage by Region and Water Depth	30
➤ Fig 21. Projects in Appraisal Stage by Region and Water Depth	31
➤ Fig 22. Map of FPS Units	33
➤ Fig 23. Table of Production and Storage Floaters by Type and Region	34
➤ Fig 24. FPSO by Status and Region	35
➤ Fig 25. FSO by Status and Region	35
➤ Fig 26. FSRU by Status and Region	36
➤ Fig 27. FLNG by Status and Region	36
➤ Fig 28. SEMI by Status and Region	37

➤ Fig 29. SPAR/TLP by Status and Region	37
➤ Fig 30. Likely Awards (FPSOs)	38
➤ Fig 31. Likely Awards (Non-FPSOs)	39
➤ Fig 32. FPS Units On Order / Under Repair	143