**Supplementary Materials**

Table S1. Frequency distribution of inspections by flag and year.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | **Flag/ Year** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **Total** |
| 1 | Algeria | 9 | 7 | 10 | 17 | 14 | 11 | **68** |
| 2 | Antigua and Barbuda | 225 | 186 | 176 | 130 | 136 | 86 | **939** |
| 3 | Bahamas | 117 | 118 | 123 | 123 | 104 | 90 | **675** |
| 4 | Barbados | 15 | 13 | 14 | 14 | 15 | 8 | **79** |
| 5 | Belgium | 7 | 15 | 10 | 14 | 13 | 14 | **73** |
| 6 | Belize | 5 | 5 | 3 | 1 | 3 | 1 | **18** |
| 7 | Bermuda, UK | 23 | 12 | 13 | 13 | 10 | 8 | **79** |
| 8 | Cayman Islands, UK | 33 | 30 | 30 | 37 | 41 | 32 | **203** |
| 9 | China | 18 | 12 | 5 | 8 | 14 | 7 | **64** |
| 10 | Cook Islands | 3 | 5 | 1 | 9 | 4 | 7 | **29** |
| 11 | Croatia | 7 | 4 | 5 | 3 | 6 | 2 | **27** |
| 12 | Curacao | 11 | 6 | 10 | 10 | 8 | 3 | **48** |
| 13 | Cyprus | 121 | 130 | 108 | 82 | 95 | 75 | **611** |
| 14 | Denmark | 72 | 91 | 76 | 64 | 63 | 64 | **430** |
| 15 | Finland | 22 | 7 | 1 | 8 | 5 | 5 | **48** |
| 16 | France | 9 | 15 | 9 | 10 | 17 | 14 | **74** |
| 17 | Germany | 50 | 34 | 40 | 19 | 19 | 15 | **177** |
| 18 | Gibraltar, UK | 52 | 53 | 57 | 45 | 44 | 32 | **283** |
| 19 | Greece | 83 | 73 | 86 | 76 | 61 | 43 | **422** |
| 20 | Hong Kong | 150 | 149 | 174 | 152 | 204 | 123 | **952** |
| 21 | India | 6 | 6 | 5 | 3 | 5 | 3 | **28** |
| 22 | Ireland | 4 | 4 | 5 | 10 | 4 | 4 | **31** |
| 23 | Isle of Man, UK | 56 | 58 | 65 | 44 | 34 | 32 | **289** |
| 24 | Italy | 92 | 103 | 79 | 83 | 84 | 65 | **506** |
| 25 | Japan | 7 | 5 | 8 | 8 | 8 | 6 | **42** |
| 26 | Kuwait | 4 | 7 | 11 | 6 | 3 | 2 | **33** |
| 27 | Liberia | 441 | 407 | 362 | 360 | 346 | 261 | **2,177** |
| 28 | Lithuania | 9 | 5 | 6 | 5 | 7 | 8 | **40** |
| 29 | Luxembourg | 19 | 32 | 15 | 19 | 14 | 5 | **104** |
| 30 | Malta | 231 | 263 | 272 | 241 | 250 | 176 | **1,433** |
| 31 | Marshall Islands | 235 | 311 | 308 | 345 | 336 | 256 | **1,791** |
| 32 | Morocco | 6 | 7 | 4 | 7 | 13 | 9 | **46** |
| 33 | Netherlands | 123 | 124 | 99 | 92 | 90 | 65 | **593** |
| 34 | Norway | 91 | 96 | 90 | 95 | 87 | 58 | **517** |
| 35 | Panama | 475 | 445 | 395 | 389 | 339 | 292 | **2,335** |
| 36 | Philippines | 14 | 12 | 15 | 8 | 9 | 7 | **65** |
| 37 | Portugal | 22 | 27 | 39 | 57 | 79 | 61 | **285** |
| 38 | Republic of Korea | 7 | 7 | 6 | 10 | 9 | 6 | **45** |
| 39 | Russian Federation | 35 | 29 | 27 | 30 | 37 | 23 | **181** |
| 40 | Saint Vincent and the Grenadines | 20 | 11 | 6 | 10 | 5 | 6 | **58** |
| 41 | Saudi Arabia | 8 | 6 | 7 | 9 | 6 | 7 | **43** |
| 42 | Singapore | 152 | 183 | 180 | 183 | 186 | 142 | **1,026** |
| 43 | Spain | 4 | 2 | 7 | 5 | 4 | 1 | **23** |
| 44 | Sweden | 15 | 7 | 17 | 4 | 3 | 9 | **55** |
| 45 | Switzerland | 5 | 8 | 3 | 11 | 3 | 2 | **32** |
| 46 | Thailand | 3 | 2 | 5 | 2 | 2 | 1 | **15** |
| 47 | Tunisia | 5 | 10 | 6 | 6 | 5 | 4 | **36** |
| 48 | Turkey | 38 | 25 | 23 | 22 | 22 | 15 | **145** |
| 49 | United Kingdom | 75 | 76 | 70 | 63 | 72 | 43 | **399** |
| 50 | United States | 32 | 26 | 30 | 34 | 29 | 25 | **176** |
| 51 | Vanuatu | 7 | 7 | 5 | 4 | 5 | 4 | **32** |
|   | **Total** | **3,273** | **3,276** | **3,121** | **3,000** | **2,972** | **2,238** | **17,880** |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Classification certificate** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **Total** |
| American Bureau of Shipping (ABS) | 386 | 401 | 399 | 389 | 390 | 289 | **2,254** |
| Bulgarian Register of Shipping(BRS) | 1 | 0 | 2 | 0 | 0 | 0 | **3** |
| Bureau Veritas (BV) | 428 | 463 | 426 | 437 | 421 | 329 | **2,504** |
| China Classification Society (CCS) | 37 | 43 | 29 | 32 | 52 | 40 | **233** |
| Croatian Register of Shipping (CRS) | 5 | 1 | 3 | 4 | 2 | 2 | **17** |
| Dromon Bureau of Shipping (DBS) | 0 | 0 | 1 | 0 | 1 | 0 | **2** |
| Det Norske Veritas (DNV) | 431 | 359 | 216 | 143 | 96 | 22 | **1,267** |
| DNV GL AS (DNVGL) | 0 | 136 | 399 | 615 | 710 | 668 | **2,528** |
| Germanischer Lloyd (GL) | 823 | 670 | 446 | 220 | 106 | 26 | **2,291** |
| Inspection Classification Maritime (INCLAMAR) | 0 | 1 | 0 | 0 | 0 | 0 | **1** |
| International Naval Surveys Bureau (INSB) | 6 | 2 | 0 | 2 | 3 | 0 | **13** |
| Indian Register of Shipping ( IRS) | 5 | 6 | 6 | 4 | 5 | 8 | **34** |
| International Register of Shipping (IS) | 1 | 1 | 0 | 0 | 0 | 0 | **2** |
| Korean Register of Shipping (KRS) | 85 | 95 | 99 | 89 | 95 | 74 | **537** |
| Lloyd's Register (LR) | 453 | 458 | 466 | 453 | 471 | 342 | **2,643** |
| Maritime Bureau of Shipping (MBS) | 0 | 1 | 2 | 0 | 0 | 0 | **3** |
| Macosnar Corporation (MC) | 0 | 0 | 0 | 0 | 1 | 0 | **1** |
| Maritime Lloyd. Georgia (ML) | 1 | 0 | 0 | 0 | 1 | 0 | **2** |
| National Shipping Adjuster Inc. (NASHA) | 0 | 0 | 0 | 1 | 0 | 0 | **1** |
| Nippon Kaiji Kyokai (NKK) | 452 | 452 | 463 | 431 | 419 | 304 | **2,521** |
| OTHER\* | 7 | 11 | 10 | 4 | 1 | 3 | **36** |
| Phoenix Register of Shipping (PHRS) | 2 | 0 | 1 | 2 | 0 | 0 | **5** |
| Panama Maritime Documentation Services (PMDS) | 3 | 2 | 1 | 0 | 0 | 0 | **6** |
| Polski Rejestr Statkow (PRS) | 9 | 7 | 8 | 9 | 11 | 5 | **49** |
| RINA Services S.p.A. (RINA) | 129 | 151 | 146 | 165 | 165 | 126 | **882** |
| Russian Maritime Register of Shipping (RMRS) | 53 | 45 | 38 | 39 | 48 | 24 | **247** |
| Register of Shipping. Albania (RSA) | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| Shipping Register of Ukraine (SRU) | 0 | 2 | 0 | 1 | 0 | 0 | **3** |
| Turkish Lloyd (TL) | 1 | 2 | 0 | 0 | 1 | 0 | **4** |
| Venezuelan Register of Shipping (VRS) | 1 | 0 | 0 | 0 | 0 | 0 | **1** |
| **Total** | **3,320** | **3,309** | **3,161** | **3,040** | **2,999** | **2,262** | **18,091** |

Table S2. Frequency distribution of Inspection by Classification certificate and year.

\*The certificate “OTHER” represents old (about 70 years), and small (235 GT) ships. However, contrary to most of the analysis, these ships have on average only 1.5 deficiencies an exceedingly small number given their other characteristics. The reason is that these classifications belong to classic ships, normally reformed sailing vessels used to transport passengers and vehicles, but not cargo. These ships are in the minority and are associated with only extremely specific classification societies given their unique characteristics.