

UK Fleet Capacity Report 2017

This report contains information on UK Fleet Capacity in 2017. It has been prepared as required by Article 22 of EC Regulation 1380/2013. The guidelines issued within Commission Communication COM (2014) 545 have been followed. The data presented are based on analysis of data submitted to the Scientific, Technical and Economic Committee for Fisheries (STECF) for the fleet economic report, ensuring a consistent approach. These data are based on UK fleet size as of 1st January 2017, with activity data including vessels joining the UK fleet after this date.

Section F includes details of the biological balance indicators produced by the Joint Research Council (JRC) in 2017 and 2018 on behalf of the Commission as approved by the STECF and released via the reports section of the STECF web-site. In addition to the biological indicators produced by the JRC section F also includes economic and technical indicators produced by the Marine Management Organisation using data submitted for the call for fleet economic scientific data concerning 2008-2017 as per Chapter III of Council Regulation (EU) 2017/1004. The indicators have been checked and verified before use to the extent possible given the information supplied. It is requested that the Commission make available the full data processes for all the balance indicators to allow a full validation of processes.

Section A. UK Fishing Fleets

A1. Description of fleets

As of 1st January 2017, the UK fleet contained 6,223 vessels (including active and inactive vessels); just 2 fewer vessels than at the same time in 2016. In terms of active vessels, the UK fleet contained 4,538 vessels as of 1st January 2017, 56 more than at the same time in 2016. Of these active vessels, 69 per cent were 10m and under in length. Active fleet capacity has decreased by 816 kW from 2016 to 2017. Since 2016, the less than 10m active vessel group increased by 75 vessels and 4,815kW. Other active vessel groups saw smaller changes each decreasing by between 3 and 6 vessels.

With regards to gear types employed throughout 2017, potting vessels comprise 45 per cent of the active fleet by number in 2017, while accounting for 23 per cent of active engine capacity. Similarly netters account for 12 per cent of active vessel numbers, but only 5 per cent of engine capacity. Demersal trawlers and seiners on the other hand account for 16 per cent of active fleet numbers and 31 per cent of total fleet engine capacity.

Table 1: Vessel numbers (both active and inactive) by gear type and length United Kingdom, 2017

As of 01/01/2017:														As of 01/01/2018:		
	DFN	DRB	DTS	FPO	HOK	MGP	PGP	PMP	PS	TBB	TM	Total active vessels	Total inactive vessels	Total fleet	Total fleet	Difference from 01/01/2017 to 01/01/2018
2017 totals	548	303	738	2,026	656	40	86	5	6	95	35	4,538	1,695	6,233	6,193	-40
VL0010	519	115	212	1,763	624	34	85	5		10	2	3,369	1,545	4,914	4,877	-37
VL1012	10	28	79	171	18	1	1			11	1	320	63	383	389	6
VL1218	6	113	193	76		4			6	22	8	428	42	470	463	-7
VL1824	7	24	161	13		1				17		223	16	239	236	-3
VL2440	6	21	84	3	13					27	1	155	24	179	183	4
VL40XX		2	9		1					8	23	43	5	48	45	-3

^a An active vessel is defined as a registered vessel that has undertaken fishing activity in the reference year.

Note: DCF gear codes are included in Appendix C for reference.

Table 2: Vessel engine capacity (kW) by gear type and length United Kingdom, 2017

As of 01/01/2017:														As of 01/01/2018:		
	DFN	DRB	DTS	FPO	HOK	MGP	PGP	PMP	PS	TBB	TM	Total active vessels	Total inactive vessels	Total fleet	Total fleet	Difference from 01/01/2017 to 01/01/2018
2017 totals	35,247	58,847	207,738	155,214	40,860	4,181	4,834	219	1,456	38,380	118,005	664,983	104,421	769,404	761,469	-7,935
VL0010	26,737	9,854	22,477	109,936	30,337	3,139	4,700	219		742	205	208,346	66,627	274,973	531,422	256,448
VL1012	1,511	4,422	10,669	23,518	2,869	134	134			1,311	90	44,657	9,374	54,032	49,895	-4,136
VL1218	1,179	22,062	39,810	16,597		628		1,456	4,392	1,541		87,665	7,188	94,853	80,858	-13,995
VL1824	2,521	7,907	63,264	3,656		280			3,975			81,602	4,626	86,228	43,744	-42,484
VL2440	3,299	12,772	51,326	1,508	6,934					16,244	3,000	95,083	12,697	107,780	44,453	-63,327
VL40XX		1,830	20,193		720					11,717	113,170	147,630	3,908	151,538	11,096	-140,441

Note: DCF gear codes are included in Appendix C for reference.

Table 3: Vessel tonnage capacity (GT) by gear type and length United Kingdom, 2017

As of 01/01/2017:														As of 01/01/2018:		
	DFN	DRB	DTS	FPO	HOK	MGP	PGP	PMP	PS	TBB	TM	Total active vessels	Total inactive vessels	Total fleet	Total fleet	Difference from 01/01/2017 to 01/01/2018
2017 totals	4,992	13,762	70,734	14,391	5,415	477	235	13	225	11,365	50,502	172,110	13,883	185,993	187,211	1,218
VL0010	1,603	793	2,139	6,450	1,393	250	224	13		55	17	12,936	3,627	16,563	118,695	102,132
VL1012	176	566	1,434	2,772	214	13	11			180	6	5,371	814	6,184	10,785	4,601
VL1218	404	4,221	9,665	2,957		121		225		612	257	18,461	1,124	19,585	23,228	3,643
VL1824	1,029	2,919	22,498	1,441		93				2,197		30,177	1,487	31,663	12,892	-18,772
VL2440	1,779	4,532	23,120	772	3,341					4,465	850	38,859	4,935	43,794	17,572	-26,221
VL40XX		732	11,878		468					3,857	49,372	66,307	1,897	68,204	4,040	-64,164

Note: DCF gear codes are included in Appendix C for reference.

A2. Fishing fleets in relation to fisheries

Vessels using demersal and pelagic trawls account for the greatest proportion of UK demersal landings (by weight and value) with the bulk of landings by vessels of 18m or over. Demersal trawlers also account for a significant proportion of crustacean landings (41 per cent by weight), slightly less than potting vessels (56 per cent by weight). Unlike demersal, the majority of crustacean landings are by the under 24m fleet, with under 10m vessels accounting for 25 per cent of the catch by weight, and 10 to 24m vessels accounting for a further 70 per cent by weight.

Dredges account for the majority of molluscs caught (44 per cent by weight), with 71 per cent of landings (by weight) by vessels between 12 and 40m in length. Under 10m vessels account for a further 23 per cent of mollusc landings by weight.

In terms of pelagic landings, pelagic trawlers account for 98 per cent of pelagic landings by value and 97 per cent by weight. Vessels of over 40m account for 96 percent of pelagic landings by value and 95 per cent by weight.

Between 2016 and 2017 the average value of pelagic (including mackerel and herring) demersal and crustacean species per tonne has decreased and the weight of all species groups except for pelagic also decreased, although the increase in pelagic more than offset the weight decreases elsewhere. Overall this is reflected in the decrease in total value (table 4) and an increase in total weight (table 5) when compared to 2016 (1,088,853,881 total value (euro) and 715,153,750 total weight (kg) respectively).

Table 4: Proportion of fishery landings by value (Euros) accounted for by different gear types United Kingdom, 2017

Gear:	Crustacean	Demersal	Mollusc	Pelagic	Total value (€)
DFN	0%	6%	0%	0%	25,401,783
DRB	0%	0%	44%	0%	80,758,695
DTS	43%	75%	25%	0%	433,979,710
FPO	54%	1%	15%	0%	155,560,693
HOK	0%	6%	3%	1%	30,866,192
MGP	0%	0%	1%	0%	3,682,903
PGP	0%	0%	0%	0%	1,590,353
PMP	0%	0%	0%	0%	9,802
PS	0%	0%	0%	1%	1,590,641
TBB	1%	11%	11%	0%	65,414,599
TM	0%	0%	0%	98%	289,998,511
Total value (€)	229,996,604	385,100,030	177,939,678	295,817,569	1,088,853,881

Note: Data are based on annual landings for all vessels included in the fleet as of 1st January 2017, and includes vessels joining after this date.

Table 5: Proportion of fishery landings by weight (kg) accounted for by different gear types
United Kingdom, 2017

	Crustacean	Demersal	Mollusc	Pelagic	Total weight (kg)	
Gear:						
DFN	0%	4%	0%	1%	10,691,099	
DRB	0%	0%	44%	0%	33,317,557	
DTS	41%	80%	15%	1%	184,132,194	
FPO	56%	0%	28%	0%	60,570,445	
HOK	0%	5%	1%	0%	11,133,954	
MGP	0%	0%	4%	0%	4,398,522	
PGP	0%	0%	0%	0%	512,000	
PMP	0%	0%	0%	0%	7,527	
PS	0%	0%	0%	1%	3,972,992	
TBB	1%	8%	7%	0%	20,080,534	
TM	0%	2%	0%	97%	386,336,928	
Total weight (kg)	Total value	68,166,184	177,616,150	74,091,580	395,279,837	715,153,751

Note: Data are based on annual landings for all vessels included in the fleet as of 1st January 2017, and includes vessels joining after this date.

Table 6: Proportion of fishery landings by value (Euros) accounted for by different vessel length groups
United Kingdom, 2017

	Crustacean	Demersal	Mollusc	Pelagic	Total value (€)
Length:					
VL0010	31%	5%	16%	1%	123,034,593
VL1012	12%	1%	9%	0%	48,377,587
VL1218	28%	4%	24%	1%	124,879,076
VL1824	25%	21%	19%	0%	169,033,401
VL2440	4%	55%	23%	2%	267,888,426
VL40XX	0%	14%	10%	96%	355,640,799
Total value (€)	177,005	54,207,118	17,299,385	283,957,291	1,088,853,881

Note: Data are based on annual landings for all vessels included in the fleet as of 1st January 2017, and includes vessels joining after this date.

Table 7: Proportion of fishery landings by weight (kg) accounted for by different vessel length groups
United Kingdom, 2017

	Crustacean	Demersal	Mollusc	Pelagic	Total weight (kg)
Length:					
VL0010	25%	3%	23%	1%	42,719,294
VL1012	11%	1%	10%	1%	18,942,349
VL1218	33%	3%	26%	2%	55,753,031
VL1824	26%	19%	17%	0%	64,048,921
VL2440	5%	53%	18%	1%	115,926,494
VL40XX	0%	21%	6%	95%	417,763,662
Total weight (kg)	68,166,184	177,616,150	74,091,580	395,279,837	715,153,751

Note: Data are based on annual landings for all vessels included in the fleet as of 1st January 2017, and includes vessels joining after this date.

A3. Development(s) during the previous year, including fisheries covered by multiannual management or recovery plans

The number of dredgers in the UK fishing fleet increased from 2016 to 2017 by 3 vessels (see table 8), however over 15 metre vessels are currently managed under a strict days at sea regime which will act to restrict the overall activity of these vessels in area VII (see Appendix A). Latent capacity in the fleet caused by inactive vessels with shellfish permits, combined with high effort uptake by the scalloping sector, has led to more active and tightly regulated management of scalloping vessels operating in Western Waters since 2012. In comparison, the number of potting vessels has stayed at nearly the same level in 2017 as in 2016 after a significant increase in 2015 following an overall trend of decline since 2008. Nevertheless, in 2013, UK fisheries administrations introduced active management of crabbing effort in ICES area VII under the Western Waters regime. During 2015 the UK also introduced the monitoring and management of fishing activity related to Sea Bass as required by Council Regulation 2015/960, with revisions to the requirements in 2016 and 2017.

The number and capacity of demersal trawlers and seiners has been declining since 2008 and for vessel numbers this pattern continued between 2016 and 2017 but with capacity remaining roughly the same. Overall this has resulted in a reduced fishing fleet in UK demersal fisheries. The number and capacity of pelagic trawlers has reversed the decline seen in earlier years, increasing 4 vessels in 2017 compared with 2016.

Table 8: Developments in fleet capacity and composition

United Kingdom, 2012 – 2017

	DRB		DTS		FPO		TM	
	No. of vessels	Capacity kW	No. of vessels	Capacity kW	No. of vessels	Capacity kW	No. of vessels	Capacity kW
2012 totals	267	56,015	889	236,015	2,053	145,660	41	148,226
VL0010	106	9,106	280	28,896	1,797	105,595	3	299
VL1040	158	44,533	597	184,781	256	40,065	6	1,960
VL40XX	3	2,376	12	22,338			32	145,968
2013 totals	294	62,816	854	224,615	2,026	149,016	37	141,673
VL0010	104	9,395	267	27,309	1,760	106,390	3	299
VL1040	187	50,846	578	178,713	266	42,626	4	937
VL40XX	3	2,574	9	18,593			30	140,438
2014 totals	304	64,153	831	218,239	2,019	148,820	37	138,909
VL0010	108	9,923	258	26,193	1,753	105,595	3	560
VL1040	193	51,657	564	173,452	266	43,224	4	3,630
VL40XX	3	2,574	9	18,593			30	134,719
2015 totals	308	64,027	820	221,096	2,003	148,994	33	133,392
VL0010	105	9,589	256	25,931	1,742	105,647	2	224
VL1040	201	52,608	554	172,572	261	43,347	4	3,630
VL40XX	2	1,830	10	22,593			27	129,538
2016 totals	308	62,586	786	215,251	2,087	157,561	34	133,889
VL0010	112	9,345	237	24,630	1,814	111,383	3	341
VL1040	193	50,667	540	170,428	273	46,178	4	3,630
VL40XX	3	2,574	9	20,193			27	129,918
2017 totals	311	60,487	754	215,776	2,083	159,920	38	136,479
VL0010	117	9,939	213	22,561	1,813	113,371	2	205
VL1040	192	48,718	532	173,022	270	46,549	10	4,705
VL40XX	2	1,830	9	20,193			26	131,570

Note: DCF gear codes are included in Appendix C for reference.

Section B. Effort reduction Schemes

B1. Statement on effort reduction schemes

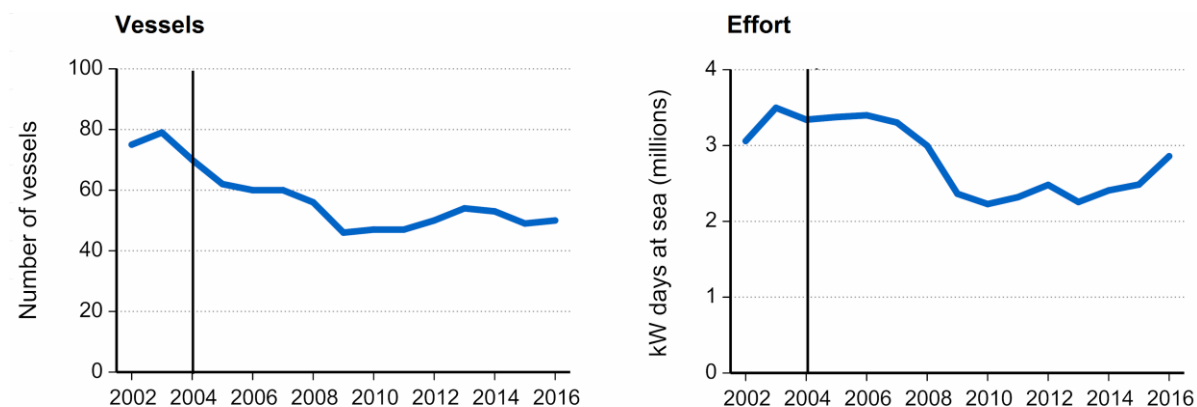
With the suspension in 2017 of those elements of the Cod Recovery Regime, this section focusses solely on the three other distinct effort management schemes that UK Devolve Authorities (DA's) operate. The Sole Recovery Zone (SRZ) (ICES sub-area VIIe) effort reduction scheme and two Western Waters schemes limit the maximum uptake of effort, rather than actively reduce it. These Western Waters schemes cover scalloping effort and crabbing effort (both covering effort in ICES sub-area VII) (see appendix A for more information on the Western Waters scheme). Under each scheme, key fleet segments are targeted and control measures taken to limit or reduce the number of vessels active and/or the effort they exert on the fishery.

Sole Recovery Zone (SRZ) Days at Sea Scheme:

The SRZ scheme limits the number of days spent at sea by vessels fishing with beam trawls of mesh size greater than or equal to 80mm and by vessels using static nets (including gill nets, trammel nets and tangle nets) with mesh size less than 220mm. The introduction of the SRZ scheme in 2004 initially reduced the number of vessels active, and the effort exerted, in SRZ areas. Since 2004, the first year of implementation of the SRZ scheme, the number of vessels beam

trawling in the Western Channel has decreased by 25 per cent and effort (kW days) has decreased by 3 per cent (see figure 3).

Figure 3: Fleet size and effort of vessels using beam trawls in the Sole Recovery Zone: 2002 to 2016



Note: The data presented here have been compiled for Sea Fisheries Statistics 2016 published in September 2017. The 2017 publication is due in September 2018.

Looking at more recent data (see table 9) we can see that the number of vessels active in the SRZ has remained relatively stable between 2013 and 2017, however, the effort has increased markedly.

Table 9: Changes in fleet capacity and effort in the Sole Recovery Zone United Kingdom, 2012 – 2016

	2012	2013	2014	2015	2016
No. of active vessels	50	54	53	49	50
Days effort	6,652	6,121	6,116	6,246	6,786
kW days effort	2,480,724	2,255,310	2,407,901	2,485,062	2,859,242

B2. Impact of effort reduction schemes on fleet capacity

The active fleet size has declined under the SRZ scheme, however, effort has started to increase after falling¹. The decline in the SRZ fleet size observed since the introduction of the schemes may be the result of an actual decline in capacity, or may be the result of a shift in activity, but at the same time, an overall decline in active fleet size has been observed.

It is important to note that the UK fleet is involved in a wide variety of fishing activities, many outside of the SRZ scheme. Furthermore, effort schemes have been run in parallel with other fleet management schemes, notably quota and licensing controls, as well as national decommissioning schemes, therefore reduction in fleet capacity and effort cannot be attributed to a single causal factor.

The UK has operated several decommissioning schemes from the mid 1990s through to the last such scheme operated in 2010/11. Such schemes are difficult to structure so that they are

¹ Please see our annual Sea Fisheries Statistics publication for further details

<https://www.gov.uk/government/collections/uk-sea-fisheries-annual-statistics>

targeted sufficiently to deliver value for money. Consequently, the emphasis in the UK in recent years has been on the use of alternative management measures such as quota limits to manage fleet activity.

Section C. Entry/Exit Schemes

C1. Statement of compliance with entry/exit schemes with level of reference

An Entry/Exit regime has been in place since 1993 as part of the UK licensing system, so that any new vessel can only be brought into the fleet if a corresponding exit of vessel capacity has already occurred. Furthermore, reductions in reference levels downwards has since occurred to take account of fleet exits funded with public aid through official decommissioning schemes. Exits under such schemes occurred in 2003 and 2004 (schemes related to the need to reduce fishing effort under the Cod Recovery regime), in 2007 (a limited scheme focussed on reducing effort related to Western Channel Sole), and in 2008/9 (a scheme focussed on the English inshore fleet). It is important to note that the UK has been fully compliant with fleet ceilings across the whole period.

Table 10: The impact of entry/exit schemes on fleet capacity
United Kingdom, 2003 - 2017

		GT		KW	
1	Capacity of the fleet on 01/01/2003	GTFR	241001	KWFR	942376
2	Capacity level for the application of the entry-exit regime (incorporates GT3 adjustments above)	GT03	254291	KW03	981757
3	Entries of vessels of more than 100GT financed with public aid	GT100	0	KW100	0
4	Other entries or capacity increases (not included in 3 or 4)		135635		486847
5	Increases in tonnage GT for safety reasons	GTS	0		0
6	Total Entries (3+4+5)		135635		486847
7	Exits before 1/1/2007 financed with public aid	GTa1	16454	KW a	44371
8	Exits after 1/1/2007 financed with public aid	GTa2	5989		23966
9	Other exits (not included in 7 and 8)		169064		607838
10	Total exits (7+8+9)		191507		676175
11	Other net changes to vessel capacity (i.e. modifications to data)		2082		8420
12	Power of engines replaced with public aid conditional to power reduction		0	KW r	0
13	Capacity of the fleet on 01/01/2018 (1+6-10+11)	GTt	187211	KWt	761469
14	Fleet Ceiling on 01/01/2018		231106		909141

Note: Data are extracted from the European Community Fleet Register and Appendix B contains a more detailed look at UK compliance with fleet ceilings from January 2003 to January 2018.

Section D. General Fleet Management

D1. Summary of weaknesses and strengths of the management system

Effort management systems administered by the UK administrations are multi-faceted in their approach to controlling effort while simultaneously promoting conservation and sustainable behaviours. Both SRZ and the CRZ management schemes offer incentives to vessels committed to Fully Documented Fisheries (FDF), in the form of Catch Quota schemes. Even though the active effort control elements of the CRZ management regime were suspended in 2017, the UK continued to encourage vessels to sign up to FDF schemes and therefore carrying cameras on board, with incentives related to the additional quota allowances being given in some cases.

The primary challenge to these schemes is their enforcement. Once extra days have been granted for use of selective gears or for sustainable fishing strategies, UK fishing administrations are unlikely to be able to inspect every vessel. However UK administrations do closely monitor landings of these vessels, for instance 5 per cent cod vessels where checks are carried out to ensure that vessels remain compliant with the landings threshold.

The UK considers the move away from traditional effort (days at sea) for Cod and the implementation of regional multi-annual management plans and the landing obligation for demersal species in 2017 as a positive move for fisheries management.

D2. Plan for improvement in fleet management system

On 2nd May 2012, following discussions between all four Fisheries Ministers within the UK, a revised concordat was agreed to realign the relationship and division of responsibilities between the administrations. The introduction of the concordat has increased the devolution of fisheries and fleet management to the respective fisheries administrations. Under the concordat, Defra, the Northern Ireland Executive, the Scottish Government and the Welsh Government are allocated annually agreed shares of UK quotas for distribution to their fleets. The concordat also rationalises arrangements for the licensing and administration of fishing vessels. This devolution of powers results in the increased ability for fishing administrations to manage the vessels within and capacity of their respective fleets, by allowing each administration to take forward changes that suit the particular situations prevalent within their fishing fleets and to provide new opportunities to better support fishing communities on a sustainable basis.

The UK government ran a consultation on proposed changes to the Concordat from 7 December 2016 to 28 February 2017. The UK government is currently reflecting on the responses and will set out next steps in due course.

This is being supported by the ongoing sample testing of vessel engines across the UK fleet to confirm that the engine power of the vessel is as reported.

More recent work to improve fleet management and the capacity of the UK fleet includes several licence capping schemes by Scottish and English Fisheries Administrations. In England, this has

occurred in 2 tranches, the first in 2008-09 in line with the decommissioning of vessels within the English inshore fleet and the second in 2016 where a review of the uncapped licences was undertaken. The scheme entails capping the licences of under 10m vessels that have not caught more than 300kg of quota between pre-defined dates, and removing shellfish entitlements where vessels have caught less than 1kg of shellfish during a pre-defined period.

In total there are 2710 active English under 10m licences, 987 licences of these licences were capped at 350kgs following the 2009 and 2016 capping exercises with 106 of these licences had their shellfish permit temporarily suspended. This is intended to address some of the latent capacity existent in the under 10m fleet. This exercise included an appeals process. Some appeals were successful but subject to a monitoring period of 2 two years. This period for monitoring drew to an end in most cases on 31 December 2017. DEFRA officials will be seeking to review this policy in 2018

In 2015 the Scottish Government, in light of scientific evidence, suspended indefinitely latent king scallop dredge entitlements, where they had not been utilised in the preceding six years. This cap was introduced to prevent over-exploitation of the stocks and applies to the use of mechanical dredges.

D3. Information on the general level of compliance with fleet policy instruments

The UK has operated a licensing system since the mid-1990s under the principle that the total UK fleet capacity available has been ring-fenced to the levels seen at the creation of the UK licensing regime (i.e. no new capacity has been created since then). As such, the UK has been operating a fleet Entry:Exit regime in line with EU guidelines before they came into force in 1/1/2003. This has helped ensure that the UK has been able to operate within the EU level fleet Entry:Exit provisions as introduced from 1/1/2003 with only minimal transitional effects, and has operated within the fleet reference levels and capacity ceilings set for UK across the whole period of 1/1/2003 to 31/12/2017.

Fleet entries can only take place when an associated fleet exit of capacity equal to or greater than the new vessel has already taken place or will take place as part of any licence transaction associated with the fleet entry. The licensing system includes what are known as “entitlements” to licences to cover cases where there is an interval between the exit of one vessel and the entry of a replacement to the UK fleet. They can thus be used in the same way as an actual licence in transfers and aggregations. These represent the practical situation that there is a certain level of capacity always present within this holding state; this virtual capacity means that the physical capacity of the UK fleet will be consistently below the level of the fleet capacity ceilings.

Unused capacity, including safety capacity and the capacity premium for decommissioning (where only 96 per cent of the tonnage of vessels decommissioned is removed from the UK fleet ceilings), is not reallocated.

Section E. General Administrative Procedures

E1. Information on changes of the administrative procedures relevant to fleet management

Fleet management measures in the UK are carried out primarily through the licensing regime administered by Fisheries Administrations in the UK. This seeks to control both the capacity of the UK fishing fleet and, critically, access to the various fishing opportunities available to UK vessels. The quota and effort uptake by industry groups is monitored on a regular basis through the use of internal management reports in the UK. These are similar in nature to the monthly quota uptake reports operated by the Commission, but are carried out on a weekly basis (or daily if needed). Since the introduction of electronic logbooks, monitoring reports and management decisions have been based on real-time fleet data.

Under the concordat, many administrative procedures have become devolved and subsequently more localised, nevertheless fisheries administrations continue to work very closely to unify procedures and ensure clarity for industry. As part of this, devolved authorities' frequently conduct detailed reviews of operations and compliance systems.

Section F. Balance Indicators

This section contains a summary of the background for each indicator, the key threshold levels relevant for the use of the indicator and details of those fleet segments where the thresholds appear to have been exceeded. Appendices E and G include where appropriate the fuller details of fleet segments where the indicator results are available. Where fleet segments are not included it is because the appropriate information has not been available to produce indicator values for that fleet segment.

It should be noted for the balance indicators included below that the biological balance indicators have been produced by the JRC on behalf of the Commission as approved by the STECF and released via the reports section of the STECF web-site. Biological indicators have been checked and verified before use to the extent possible given the information supplied. This includes checks as possible on detailed information on the compilation processes for the SHI and SAR indicators provided by staff at the JRC as set out in STECF's report on balance indicators (STECF-17-18):

<https://stecf.jrc.ec.europa.eu/documents/43805/1716169/STECF+17-18+-+Balance+capacity.pdf>

This information was needed to allow identification of the specific fisheries that were involved for the fleet segments highlighted as operating outside the balance thresholds, which is needed to allow Member States to identify potential fishery-specific actions that might be possible to deal with any potential imbalance. The UK found the resources available within the Atlas very useful and would be grateful for the JRC to consider delivering a tutorial on the full contents and functionality of the Atlas.

Clarification was sought in 2017 from the Commission on the period indicators should be produced for. The Commission requests indicators to be calculated using the most recent data available with a reference year for this report of 2016. In accordance with these instructions the UK has produced Economic and technical indicators using data submitted for the Call for fleet economic scientific data concerning 2008-2017 as per Chapter III of Council Regulation (EU) 2017/1004. These indicators are calculated for the most recent 3 years up to the reference year of 2016.

Within the guidelines for the production of the report related to assessing the balance between fleet capacity and fishing opportunity, it states that the indicators are intended to be used in combination to draw conclusions for each fleet segment, as aggregating analyses across many different fisheries in a Member State is not useful. This leads to a degree of contradiction especially for the UK, in that within each fleet segment, while vessels will be of a similar size and carrying out fishing activity with similar gears, these activities will generally be being carried out in a variety of different seas all around the UK. This means that each fleet segment can represent a complex mix of very different types of activity in terms of the fish species being targeted, as well as the ecosystems within which this is occurring.

This can lead to two contradictory situations. Firstly a fleet segment may appear by the indicators to be below thresholds, but within that segment there may be sub-sections of the segment that have exceeded individual or a combination of thresholds and where a Member State may thus

want to take specific management action. Secondly there can be fleet segments where they appear to be exceeding thresholds, but that position may be driven by just one sub-section of the fleet. This is especially true for the biological indicators where a fleet segment can be regarded as exceeding the threshold if it lands a significant proportion of what can be small amounts of quota. This issue was also highlighted in STECF's report on balance indicators 15-02 (http://stecf.jrc.ec.europa.eu/c/document_library/get_file?uuid=69257a77-ddaf-4038-8375-ed2e5962e834&groupId=43805).

Consequently, as stated within the guidelines issued to Member States, it should be borne in mind that where key thresholds for the indicators appear to have been exceeded, it is indicative of a **potential** imbalance between fishing capacity and fishing opportunity within the fleet segments concerned rather than a definitive conclusion.

Notwithstanding these methodological uncertainties, the UK can report that having assessed each fleet segment against the combination of indicators, as set out below, we consider that none of them can be conclusively defined as out of balance using the full range of indicators available (more detail is given in subsequent sections of the report):

Table 11: Potential Fleet Segment Imbalance

Fleet Segment as defined by JRC Indicators	Area	Gear	Vessel Length	SAR	SHI	ROI	CRBER	VUI
GBR A27 DFN0010	AREA27	DFN	VL0010	No	Exceeded	No	No	Exceeded
GBR A27 DFN1012 °	AREA27	DFN	VL1012	No	No	No	No	Exceeded
	AREA27	DFN	VL1218	No	No			
GBR A27 DRB0010	AREA27	DRB	VL0010	No	No	No	No	Exceeded
GBR A27 DRB1012	AREA27	DRB	VL1012	No	No	No	No	Exceeded
GBR A27 DRB1218	AREA27	DRB	VL1218	No	No	No	No	Exceeded
GBR A27 DRB1824	AREA27	DRB	VL1824	No	No	No	No	
GBR A27 DTS0010	AREA27	DTS	VL0010	No	Exceeded	No	No	Exceeded
GBR A27 DTS1012	AREA27	DTS	VL1012	No	Exceeded	No	No	Exceeded
GBR A27 DTS1218 °	AREA27	DTS	VL1218	Exceeded	No	No	No	
GBR A27 DTS1824	AREA27	DTS	VL1824	Exceeded	Exceeded	No	No	
GBR A27 DTS2440	AREA27	DTS	VL2440	Exceeded	Exceeded	No	No	
GBR A27 DTS40XX °	AREA27	DTS	VL40XX	Exceeded	No	No	No	
	OFR	DTS	VL40XX	No	No			
GBR A27 FPO0010	AREA27	FPO	VL0010	No	No	No	No	Exceeded
GBR A27 HOK0010	AREA27	HOK	VL0010	No	Exceeded	No	No	Exceeded
GBR A27 HOK1012 °	AREA27	HOK	VL1012	No	No	Exceeded	No	Exceeded
	AREA27	HOK	VL1218	No	No			
GBR A27 MGP0010 °	AREA27	MGP	VL0010	No	No	No	No	Exceeded
	AREA27	TM	VL0010	No	No			
GBR A27 MGP1218 °	AREA27	MGP	VL1012	No	No	No	No	Exceeded
	AREA27	MGP	VL1218	No	No			
	AREA27	MGP	VL2440	No	No			
	AREA27	PS	VL1218	No	No			
	AREA27	TM	VL1012	No	No			
GBR A27 PGP0010 °	AREA27	PGP	VL0010	No	Exceeded	No	No	Exceeded
	AREA27	PGP	VL1012	No	No			
	AREA27	PGP	VL1218	No	No			
	AREA27	PMP	VL0010	No	No			
	AREA27	PMP	VL1012	No	No			
GBR A27 TBB1218	AREA27	TBB	VL1218	No	No	No	No	Exceeded
GBR A27 TBB1824	AREA27	TBB	VL1824	Exceeded	No	No	No	
GBR A27 TBB2440 °	AREA27	TBB	VL2440	Exceeded	Exceeded	No	No	
	AREA27	TBB	VL40XX	No	Exceeded			
GBR A27 TM40XX °	AREA27	TM	VL2440	No	Exceeded	No	No	Exceeded
	AREA27	TM	VL40XX	Exceeded	Exceeded			
	OFR	TM	VL40XX	No	No			

Table 11 contains summary details of those fleet segments where the construction of the required biological, technical and economic indicators has indicated that the fleets involved may potentially be out of balance. The fleet segments have been defined to combine fleet groups for which there are a low number of vessels. Technical and economic indicators are computed at this granularity. The MMO have produced indicators using the JRC segmentation in order for indicators to be comparable. For biological indicators assessments have been computed at a more detailed granularity where data permits. As an example, the grouped fleet segment “**GBR A27 DFN1012 °**” has to be used for the calculation of economic indicators ROI and CRBER as the calculation is only possible for this combined segment due to low vessel numbers in the survey data available for one of the component fleets (DFN VL1012 and DFN VL1218). However, it is possible to calculate biological indicators for each of these fleet segments, both of which are shown to be in balance.

Fleet Segment as defined by JRC Indicators	Area	Gear	Vessel Length	SAR	SHI	ROI	CRBER	VUI
GBR A27 DFN0010	AREA27	DFN	VL0010	No	Exceeded	No	No	Exceeded
GBR A27 DFN1012 °	AREA27	DFN	VL1012	No	No	No	No	Exceeded
	AREA27	DFN	VL1218	No	No			

Given the methodological constraints outlined above, the UK perceives that the exceedance of indicator thresholds by a fleet segment can only give information on **potential** imbalance between fishing capacity and fishing opportunity. As such, the UK has developed an associated Fleet Action Plan to address those areas of the fleet where the STECF assessment suggested that there may be some indication of imbalance, including through the provision of support for improved selectivity and any other appropriate actions under our EMFF Operational Programme. The proposed actions are aimed largely at supporting stock recovery and sustainable harvesting. It is our view that these measures, along with our quota management system and associated arrangements for quota trading are sufficient to balance fishing opportunities.

The progressive implementation of the landing obligation is a substantive change. It is possible, as a result, that this policy shift will alter the balance of particular UK fleet segments. In that event, the UK fisheries administrations may wish to take a more active approach to capacity management in order to assist fleet segments in responding to these changes. Until the landing obligation is fully implemented the scale of the challenge for any fleet segment is difficult to predict. As a result UK fisheries administrations may in the future want to consider the use of permanent and temporary cessation in addition to the existing suite of actions. These measures are not included in the current Fleet Action Plan or Operational Programme, but may be introduced in the future depending on need, as will any revisions to the action plan to incorporate any change to the guidelines to the format to be used for action plans that may occur.

F1. Biological Indicators

Sustainable Harvest Indicator

Definition This is a measure whereby the level of income that the fleet segment derives from a stock is compared to the stock's level of fishing mortality. Information is then collated for all stocks for which that segment has activity recorded to give an overall estimate of the extent the segment relies on stocks harvested above the levels set for Maximum Sustainable Yield (MSY) is available or an appropriate proxy for MSY if it is not. There are two elements involved – the Harvest Rate Indicator (HRI) itself and the significance ratio (the proportion that the total value of landings by the fleet segment is related to the quota stocks it fishes).

Criteria If the HRI for a segment is greater than one for three consecutive years and the significance ratio is also greater than 40%, the fleet segment could possibly be out of balance.

Key results Full results are included in Appendix D. In total, nine segments have the Harvest Rate Indicator above 1 and the significance ratio over 40% for three consecutive years:

FS name	supra_reg	fishing_tech	vessel_length	2014	2015	2016	No. of vessels in fleet segment 2016
GBR A27 DFN0010	AREA27	DFN	VL0010	1.99	1.75	1.59	590
GBR A27 DTS0010	AREA27	DTS	VL0010	1.26	1.01	0.94	237
GBR A27 DTS1012	AREA27	DTS	VL1012	1.25	1.01	1.00	85
GBR A27 DTS1824	AREA27	DTS	VL1824	1.15	1.15	0.94	167
GBR A27 DTS2440	AREA27	DTS	VL2440	1.38	1.48	1.20	87
GBR A27 HOK0010	AREA27	HOK	VL0010	2.33	2.20	2.17	541
GBR A27 PGP0010 °	AREA27	PGP	VL0010	2.03	2.16	1.54	91
GBR A27 TBB2440 °	AREA27	TBB	VL2440	1.14	1.00	1.00	25
GBR A27 TBB2440 °	AREA27	TBB	VL40XX	1.04	1.00	0.99	8
GBR A27 TM40XX °	AREA27	TM	VL2440	1.18	1.16	1.03	1
GBR A27 TM40XX °	AREA27	TM	VL40XX	1.19	1.19	1.14	27

The values in the table above appear to be broadly consistent with the evidence in the European Commission's Communication on Fishing Opportunities for 2017 about the extent to which EU stocks are being fished at Maximum Sustainable Yield (MSY).

All of the segments showed some improvement in the indicator between 2014 and 2016 as shown by the values for the indicators in 2016 being consistently lower than in 2016. In addition two are just marginally above the SHI threshold in 2016 (TBB VL2440 and DTS VL1012) and three fell below the threshold (DTS VL 0010, DTS VL1824 and TBB VL40XX).

One fleet segment highlighted in the 2016 indicator set is now no longer considered as potentially out of balance (PGP VL1012) in the 2017 indicator set.

Five fleet segments are now assessed as potentially out of balance in the 2017 indicator set that were not assessed as potentially out of balance in 2016 (DTS VL1012, PGP VL0010, TBB VL2440, TBB VL40XX and TM VL2440).

It is noticeable that the indicators for all fleet segments show a significant level of revisions to the two earliest years of the reference period compared to the values seen last year – this reinforces the comments made earlier about the indicators pointing to a potential imbalance rather than being absolute indicators of a real imbalance between fishing capacity and fishing opportunity.

The UK supports the reformed CFP objectives, for stocks to be fished at MSY by 2015 where possible and 2020 at the latest, as well as to eliminate discards, and is working to deliver this through the EU negotiations on TACs and quotas, development of regional multi-annual management plans and related technical measures, including national programmes to enable more selective fishing methods, with assistance being made available from the EMFF. These actions will constrain the deployment of available capacity in order to achieve sustainability within agreed deadlines.

As mentioned previously, the fleet segments used in the capacity report do not generally correspond to specific fisheries or ecosystems, and without full access to the processes followed, it is difficult to assess how far each segment is fishing for stocks which lack full MSY assessment, as discussed in the current Commission guidance. It would also be helpful if the indicator itself could be developed to incorporate a rating similar to the significance ratio whereby the degree to which MSY was available for the stocks concerned could be provided. The UK would welcome further guidance on this point, including how far it is possible to use alternative biological indicators relating to particular species in these circumstances.

Stocks-at-risk indicator

Definition The number of stocks regarded as at risk where the fleet segment landings for a stock are either more than 10% of total landings by the segment or the fleet segment accounts for more than 10% of total EU landings of that stock.

Criteria If a segment has any stocks at risk identified it has the potential of a biological imbalance

Key results Full details of the results of this indicator are provided in Appendix D. Details for those fleet segments where the stocks at risk results are greater than zero for any year in 2013 to 2015:

FS name	supra_reg	fishing_tech	vessel_length	2013	2014	2015	No. of vessels in fleet segment 2015
GBR A27 DTS1218 °	AREA27	DTS	VL1218	0	0	1	207
GBR A27 DTS1824	AREA27	DTS	VL1824	7	5	3	171
GBR A27 DTS2440	AREA27	DTS	VL2440	6	6	5	86
GBR A27 DTS40XX °	AREA27	DTS	VL40XX	2	4	4	9
GBR A27 TBB1824	AREA27	TBB	VL1824	0	0	1	18
GBR A27 TBB2440 °	AREA27	TBB	VL2440	0	0	1	25
GBR A27 TM40XX °	AREA27	TM	VL40XX	0	1	1	27

As mentioned above, while each fleet segment includes vessels of similar size and using similar gears, each will include vessels fishing in very different sea areas. In addition, while for some stocks the vessels may be targeting the specific species, for others the fact that the stock is at risk and quotas are set at low levels may mean that a fleet segment as a whole can be regarded as targeting a stock at risk by the activities of only a few vessels within the fleet segment.

This means that this biological indicator is very much driven by the information used to make the scientific judgment on the state of stocks rather than the level of landings of the stocks in question for the fleet segment. It would thus be helpful to have an understanding from the Commission regarding the confidence that can be attached to the stock assessment data used to create the biological indicators. It would also be helpful if the indicator itself could be developed to incorporate a rating similar to the significance ratio within the SHI indicator whereby the degree to which MSY was available for the stocks concerned could be available.

Despite methodological uncertainties, the UK administrations are giving close attention to the fleet segments that have been identified to target stocks at risk for three consecutive years; namely DTS-VL1218, DTS—VL1824, DTS – VL2440, DTS – VL40XX and DTS – VL40XX (OFR). Remedial action includes the pursuit of improved sustainability through the EU TAC and quota negotiations (which encompasses all but one of the stocks covered by these fleet segments), regional management plans and related technical measures and national measures including the provision of support for improved selectivity in these segments under our EMFF Operational Programme.

Note – the number of fleet segments listed as potentially out of balance for the sustainable harvest indicator has reduced significantly since the last report – down from 22 to 7 in this report.

This reflects the progress made at the overall level of the CFP to improve the sustainability of overall EU fleet activity and

F2. Economic Indicators

Return on Investment

Definition This compares the return on the investment (RoI) vessel owners make in the fishing activity against the level of income they might have had from just investing that same amount of funds elsewhere at no risk.

Criteria If the RoI is less than 0 it implies the vessel operators are not getting a return on their investment. If the RoI is greater than 0 but less than the average interest rate that could have been found from long-term low-risk investments (e.g. government issues bonds), it implies that the segment is not as attractive as alternative options. Either would show the fleet segment as potentially imbalance and not economically sustainable.

Key results Full details of the results of this indicator are provided in Appendix E. Details for the single fleet segment where the ROI is consistently less than zero for all three years between 2014 and 2016 are given below – it should be noted that there is significant improvement in the indicator for this fleet across the reference period.

	Fleet segment - as defined by JRC indicators	2014	2015	2016	Number of vessels in fleet segment (2016)
HOK	GBR A27 HOK1012 °	-24.46	-4.20	-1.13	19

Current versus Break Even Revenue

Definition This is the ratio of the level of current revenue from the fleet segment against the level needed for break-even – i.e. does the fishing activity cover the level of costs involved.

Criteria If the ratio is less than 1 there is a potential imbalance as the fleet segment is not profitable – i.e. income does not cover fixed and variable costs. If the CR/BER result is negative, this means that variable costs alone exceed current revenue, indicating that the more revenue is generated, the greater the losses will be.

Key results Full details of the results of this indicator are provided in Appendix E. Since this is a short term economic indicator, the use of time series data is not appropriate. **There were no segments of the UK fleet where the ratio was below 1 in 2016.**

Achieving return on investment is primarily the responsibility of the fishing industry, though the UK administrations have assisted the development of economic analytical capacity in the sector, as well as seafood marketing, through sponsorship of the arm's-length public body Seafish.

F3. Vessel Use Indicators

The inactive fleet indicator

Inactive vessels constitute an unused capacity and as such it can be considered that they reduce the overall technical efficiency and capacity utilisation rate of the total fleet. The indicator is calculated on the basis of DCF segment vessel length-classes rather than vessel segments as information on gear and target fishery is not available. The table below shows the proportion of inactive vessels within each length band of the UK fishing fleet.

	2015	2016	2017
VL0010	32.1%	31.0%	29.6%
VL1012	16.1%	14.4%	15.7%
VL1218	6.1%	7.8%	7.4%
VL1824	5.7%	5.4%	5.8%
VL2440	11.9%	11.0%	11.8%
VL40XX	9.3%	7.7%	11.3%

If more than 20% of the fleet segment is recurrently inactive this could indicate technical inefficiency that may reveal the existence of an imbalance, unless it can be explained by other reasons, such as unexpected climatic or man-made events or emergency measures as foreseen in the CFP. However, this is only true for the “VL0010” grouping – within this there are very many vessels involved. The UK has historically seen this level of inactive vessels. It relates to the fact that for this group of vessels there can be many reasons why vessel operators choose to keep their vessels registered but inactive. These include (but are not limited to):

- Carrying out other activities (i.e. non-fishing) to gain income, but wanting to retain their boat as an option for the future;
- Wanting to retain the vessel as an asset;
- Wanting to retain the vessel as a family inheritance;
- Using the vessel for marine activities other than commercial fishing (e.g. diving and other recreational activities).

The decision as to whether or not a vessel is active is seen as the responsibility of the fishing industry as part of the process of ensuring that individual businesses achieve the return on investment they require. As mentioned above, UK administrations have assisted the development of economic analytical capacity in the sector, as well as seafood marketing, through sponsorship of the arm’s-length public body Seafish.

Vessel utilisation indicator

- Definition** This indicator concerns the average activity levels of vessels that did fish at least once in the year, taking account of the seasonality of the fishery and other restrictions. Under normal conditions, it can be expected that 10% or less of the vessels in a fleet segment should be inactive, which could be due to major repairs, refits, conversions or pending sales and transfers. It assumes a theoretical maximum number of 220 days could be fished by all fleet segments if there were no external constraints.
- Criteria** If less than 70% of the potential, workable activity of comparable vessels is demonstrated, this could indicate technical inefficiency that may reveal the existence of an imbalance, unless it can be explained by other reasons, such as unexpected climatic or man-made events or emergency measures as foreseen in the CFP.
- Key results** Full details of the results of this indicator are provided in Appendix E. Details for those fleet segments where the utilisation ratio is consistently below 70% (assuming the theoretical maximum of 220 days) for each year during 2014 to 2016 are given below:

Fleet segment - as defined by JRC indicators		Number of vessels in fleet segment (2016)			
		2014	2015	2016	
DFN					
	GBR A27 DFN0010	0.27	0.25	0.26	590
	GBR A27 DFN1012 °	0.58	0.58	0.58	16
DRB					
	GBR A27 DRB0010	0.27	0.33	0.33	112
	GBR A27 DRB1012	0.52	0.50	0.60	31
	GBR A27 DRB1218	0.58	0.57	0.66	111
DTS					
	GBR A27 DTS0010	0.42	0.41	0.43	237
	GBR A27 DTS1012	0.58	0.52	0.59	85
	GBR A27 DTS1218 °	0.70	0.67	0.75	201
FPO					
	GBR A27 FPO0010	0.51	0.54	0.50	1814
	GBR A27 FPO1012	0.69	0.71	0.69	178
HOK					
	GBR A27 HOK0010	0.19	0.21	0.19	541
	GBR A27 HOK1012 °	0.32	0.41	0.40	19
MGP					
	GBR A27 MGP0010 °	0.40	0.33	0.26	16
	GBR A27 MGP1218 °	0.40	0.42	0.53	14
PGP					
	GBR A27 PGP0010 °	0.26	0.22	0.21	99
TBB					
	GBR A27 TBB0010 °	0.48	0.32	0.19	31
	GBR A27 TBB1218	0.58	0.64	0.49	24
TM					
	GBR A27 TM40XX °	0.33	0.33	0.30	28

Given the highly variable nature of activity seen within each fleet segment within the UK fleet, the UK wished to take up the option of applying differential days at sea figures for certain segments. Eight of the segments listed above relate to vessels under 10m in length. These vessels are often engaged in highly seasonal patterns of activity. They may thus fish for only limited periods of the year as opposed to the level of 220 days that could be more applicable to larger vessels. The UK considers that the heterogeneous nature of vessels within the under 10m in length fleet segments alongside the seasonal restrictions on fishing makes it inappropriate to draw conclusions on fleet utilisation for these segments from the vessel utilisation indicator even if an alternative level of days is used in the comparison. Appendix F provides evidence in support of this statement in the form of frequency distributions of days effort for the under 10 fleet segments in 2015.

Notably, vessels in the TM - VL40XX segment are affected by similar factors as they are involved in highly seasonal and time limited pelagic fisheries. As such, this level of utilisation is not seen as

indicative of an unsustainable level of activity. As stated above, the UK position is that the decision as to whether or not a vessel is inactive or not is seen as the responsibility of the fishing industry. While it is thus important to be aware of such capacity in terms of the potential level of fishing activity that could be seen, the fact that the effort is not currently being used is not necessarily evidence of an imbalance and is more likely to reflect other factors such as economic factors and the limitations of available quotas.

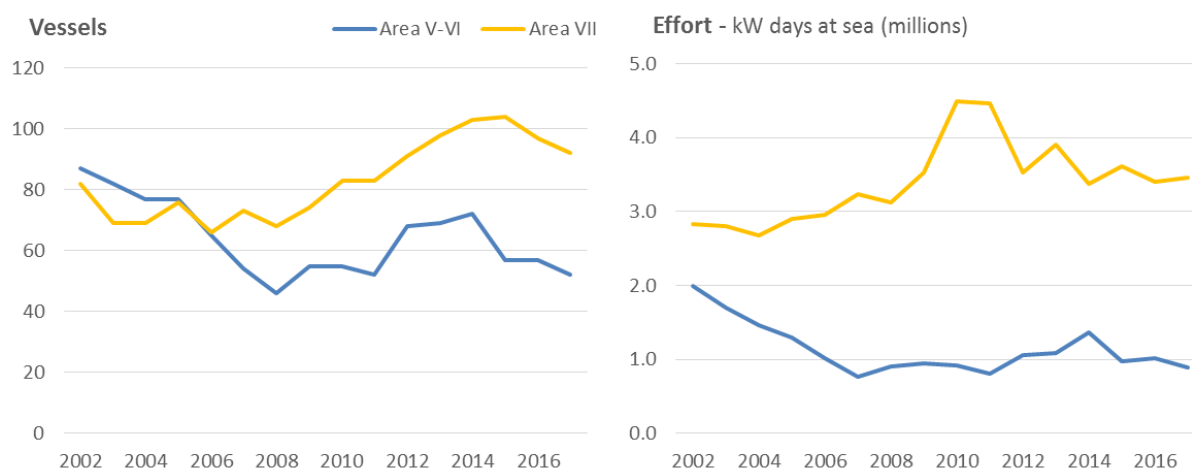
Appendix A. Effort Reduction Schemes Supporting Data

Western Waters Scheme:

The Western Waters was introduced in 2003 and covers nine sea areas. Fishing trips targeting crabs, demersal species or scallops are all covered by the regulation. Regulated activity is permitted for UK registered vessels in only four of these (ICES sub-areas V and VI, ICES sub-area VII, ICES sub-area VIII, and a Biologically Sensitive Area to the south and west of Ireland).

From 2002 to 2017 the number of vessels targeting scallops in ICES sub-areas V and VI decreased by 40 per cent while the number in ICES sub-area VII increased by 12 per cent. Effort in ICES sub-areas V and VI fell by 55 per cent, but effort in ICES sub-area VII increased by 22 per cent. This increase is partly due to diversion of activity from other sea areas as well as increased activity by vessels already fishing in ICES sub-area VII.

Figure 1. Fleet size and effort (kW days) of vessels targeting scallops in the Western Waters: 2002 to 2017



Note: The data presented here have been compiled for Sea Fisheries Statistics 2016 published in September 2017. The 2017 publication is due in September 2018.

As a result of the UK fleet approaching its allocated limits, at the start of 2012 UK fisheries administrations introduced a scheme to limit the allocation of days at sea to 15m and over vessels targeting scallops in sub-area VII. Since 2012, the effort exerted by UK vessels in the Western Waters scalloping fleet has declined by 10 per cent.

Table 1: Scalloping fleet capacity and effort in Western Waters sub-area VII United Kingdom, 2013 – 2017

	2013	2014	2015	2016	2017
No. active vessels	98	103	104	97	92
Days effort	8,923	7,888	8,318	8,479	8,027
kW days effort	3,911,181	3,376,757	3,609,826	3,397,389	3,455,075

Appendix B. Entry/Exit Schemes Summary Data

Extracts from EU Community Fleet Register analysis of UK reported fleet positions

Figure 1: UK Compliance with Fleet Capacity Levels
Details for Gross Tonnage of vessels

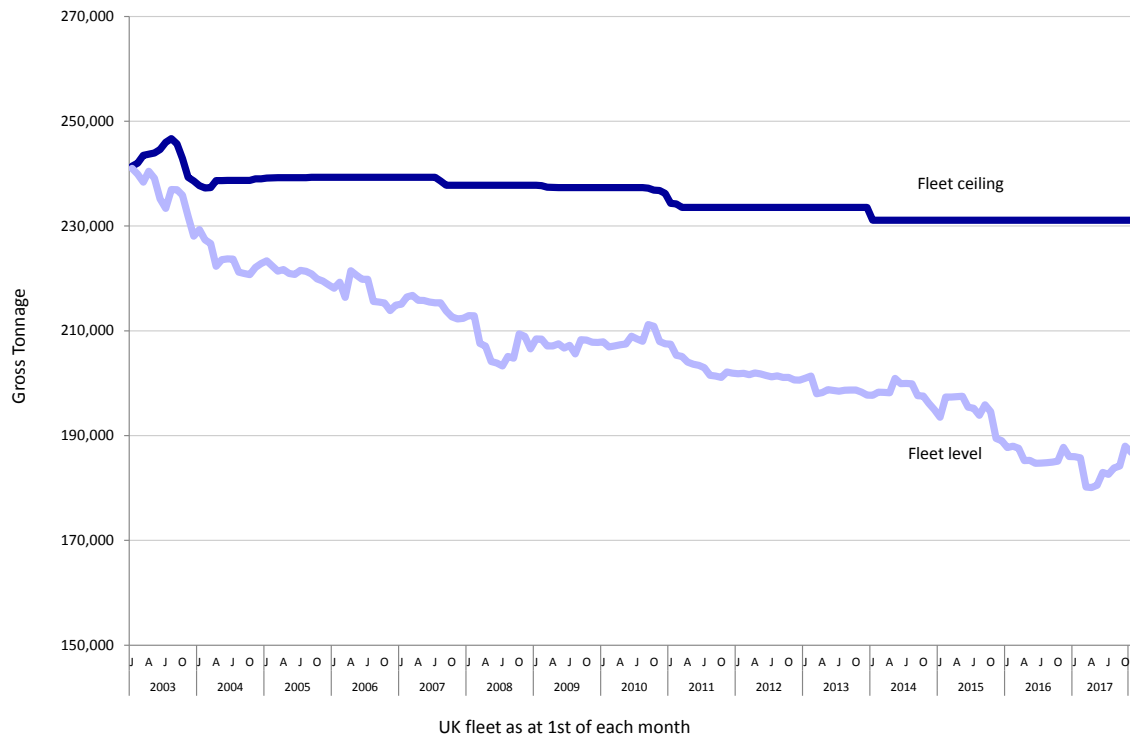
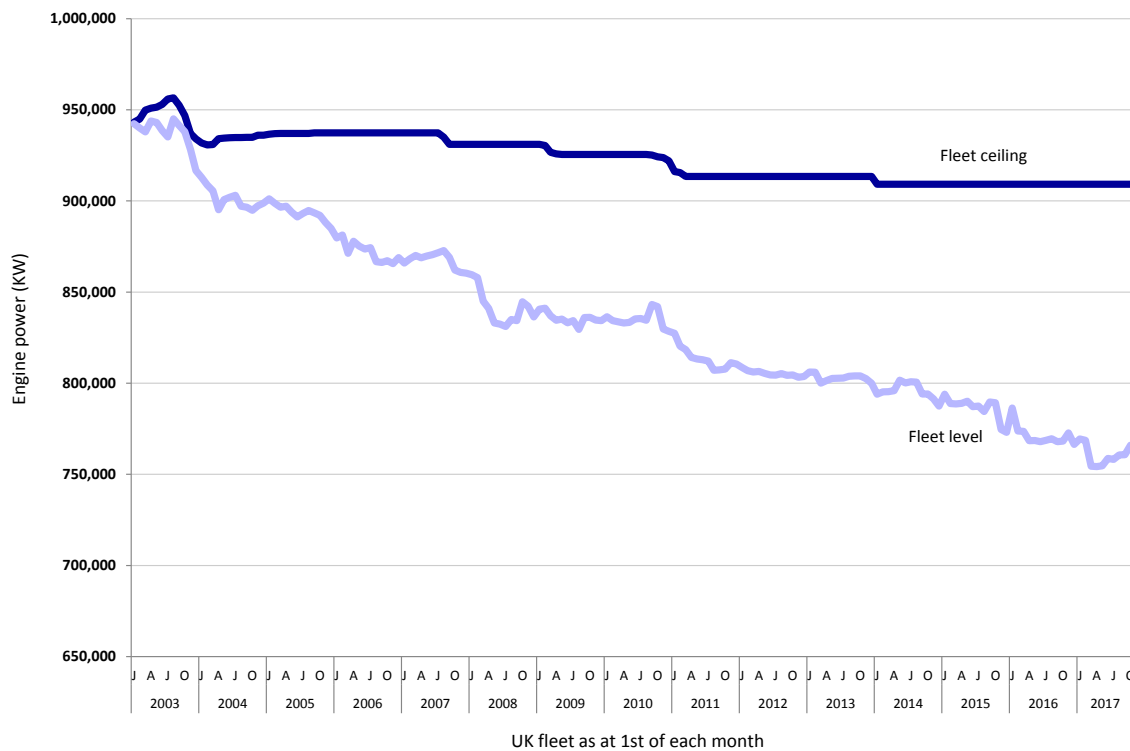


Figure 2: UK Compliance with Fleet Capacity Levels
Details for Engine Power of vessels



Appendix C. Gear Codes

DCF fishing gear codes used in Fleet Capacity Report:

DFN	Drift and/or fixed netters
DRB	Dredgers
DTS	Demersal trawlers and/or demersal seiners
FPO	Vessels using pots and/or traps
HOK	Vessels using hooks
MGO	Vessel using other active gears
MGP	Vessels using polyvalent active gears only
PG	Vessels using passive gears only
PGO	Vessels using other passive gears
PGP	Vessels using polyvalent passive gears only
PMP	Vessels using active and passive gears
PS	Purse seines
TM	Pelagic trawlers
TBB	Beam trawlers

Appendix D. Results for balance indicators produced by the JRC

Biological – Harvest Rate indicator:

FS name	supra_reg	fishing_tech	vessel_length	2014	2015	2016	No. of vessels in fleet segment 2016
GBR A27 DFN0010	AREA27	DFN	VL0010	1.99	1.75	1.59	590
GBR A27 DFN1012 °	AREA27	DFN	VL1012	1.79	1.88	1.60	10
GBR A27 DFN1012 °	AREA27	DFN	VL1218	1.04	1.00	1.04	6
GBR A27 DFN2440 °	AREA27	DFN	VL1824	1.25	0.97	1.02	7
GBR A27 DFN2440 °	AREA27	DFN	VL2440	0.91	0.90	1.10	7
GBR A27 DRB0010	AREA27	DRB	VL0010	1.34	1.04	0.96	112
GBR A27 DRB1012	AREA27	DRB	VL1012	0.96	0.85	0.75	31
GBR A27 DRB1218	AREA27	DRB	VL1218	1.15	0.95	0.92	111
GBR A27 DRB1824	AREA27	DRB	VL1824	1.54	0.84	0.86	24
GBR A27 DRB2440 °	AREA27	DRB	VL2440	0.92	0.74	0.88	27
GBR A27 DRB2440 °	AREA27	DRB	VL40XX	1.21	1.09	0.84	3
GBR A27 DTS0010	AREA27	DTS	VL0010	1.26	1.01	0.94	237
GBR A27 DTS1012	AREA27	DTS	VL1012	1.25	1.01	1.00	85
GBR A27 DTS1218 °	AREA27	DTS	VL1218	1.12	0.87	0.83	201
GBR A27 DTS1824	AREA27	DTS	VL1824	1.15	1.15	0.94	167
GBR A27 DTS2440	AREA27	DTS	VL2440	1.38	1.48	1.20	87
GBR A27 DTS40XX °	AREA27	DTS	VL40XX	0.82	0.85	0.90	8
GBR A27 DTS40XX °	OFR	DTS	VL40XX				1
GBR A27 FPO0010	AREA27	FPO	VL0010	1.21	0.90	0.88	1814
GBR A27 FPO1012	AREA27	FPO	VL1012	1.09	0.72	0.74	178
GBR A27 FPO1218	AREA27	FPO	VL1218	1.12	0.78	0.75	80
GBR A27 FPO1824 °	AREA27	FPO	VL1824				13
GBR A27 FPO1824 °	AREA27	FPO	VL2440				2
GBR A27 HOK0010	AREA27	HOK	VL0010	2.33	2.20	2.17	541
GBR A27 HOK1012 °	AREA27	HOK	VL1012	2.71	2.57	2.58	18
GBR A27 HOK1012 °	AREA27	HOK	VL1218				1
GBR A27 HOK2440 °	AREA27	HOK	VL1824				0
GBR A27 HOK2440 °	AREA27	HOK	VL2440	0.93	0.89	0.96	13
GBR A27 HOK2440 °	OFR	HOK	VL2440				0
GBR A27 HOK2440 °	OFR	HOK	VL40XX	0.36	0.38	0.36	1
GBR A27 MGP0010 °	AREA27	MGP	VL0010	1.11	1.65	1.90	13
GBR A27 MGP1218 °	AREA27	MGP	VL1012	0.60			0
GBR A27 MGP1218 °	AREA27	MGP	VL1218	1.10	1.12	0.83	6
GBR A27 MGP1218 °	AREA27	MGP	VL2440				0
GBR A27 PGP0010 °	AREA27	PGP	VL0010	2.03	2.16	1.54	91
GBR A27 PGP0010 °	AREA27	PGP	VL1012	2.71	2.85		0
GBR A27 PGP0010 °	AREA27	PGP	VL1218	1.31			0
GBR A27 PGP0010 °	AREA27	PMP	VL0010	1.94	1.43	1.03	8
GBR A27 PGP0010 °	AREA27	PMP	VL1012				0
GBR A27 MGP1218 °	AREA27	PS	VL1218		1.31	1.98	5
GBR A27 TBB0010 °	AREA27	TBB	VL0010	1.16	1.15	0.84	20
GBR A27 TBB0010 °	AREA27	TBB	VL1012	1.11	0.94	0.84	11
GBR A27 TBB1218	AREA27	TBB	VL1218	1.19	0.92	0.87	24
GBR A27 TBB1824	AREA27	TBB	VL1824	1.06	0.80	0.93	17
GBR A27 TBB2440 °	AREA27	TBB	VL2440	1.14	1.00	1.00	25
GBR A27 TBB2440 °	AREA27	TBB	VL40XX	1.04	1.00	0.99	8
GBR A27 MGP0010 °	AREA27	TM	VL0010	0.66	0.87	0.87	3
GBR A27 MGP1218 °	AREA27	TM	VL1012				0
GBR A27 MGP1218 °	AREA27	TM	VL1218	1.00	1.00	0.63	3
GBR A27 TM40XX °	AREA27	TM	VL2440	1.18	1.16	1.03	1
GBR A27 TM40XX °	AREA27	TM	VL40XX	1.19	1.19	1.14	27
GBR A27 TM40XX °	OFR	TM	VL40XX				0

Biological – Stocks at Risk indicator:

FS name	supra_reg	fishing_tech	vessel_length	2013	2014	2015	No. of vessels in fleet segment 2015
GBR A27 DFN0010	AREA27	DFN	VL0010	0	0	0	622
GBR A27 DFN1012 °	AREA27	DFN	VL1012	0	0	0	8
GBR A27 DFN1012 °	AREA27	DFN	VL1218	0	0	0	7
GBR A27 DFN2440 °	AREA27	DFN	VL1824	0	0	0	7
GBR A27 DFN2440 °	AREA27	DFN	VL2440	0	0	0	9
GBR A27 DRB0010	AREA27	DRB	VL0010	0	0	0	105
GBR A27 DRB1012	AREA27	DRB	VL1012	0	0	0	32
GBR A27 DRB1218	AREA27	DRB	VL1218	0	0	0	115
GBR A27 DRB1824	AREA27	DRB	VL1824	-1	0	0	25
GBR A27 DRB2440 °	AREA27	DRB	VL2440	0	0	0	29
GBR A27 DRB2440 °	AREA27	DRB	VL40XX	-1	-1	-1	2
GBR A27 DTS0010	AREA27	DTS	VL0010	0	0	0	256
GBR A27 DTS1012	AREA27	DTS	VL1012	0	0	0	90
GBR A27 DTS1218 °	AREA27	DTS	VL1218	0	0	1	207
GBR A27 DTS1824	AREA27	DTS	VL1824	7	5	3	171
GBR A27 DTS2440	AREA27	DTS	VL2440	6	6	5	86
GBR A27 DTS40XX °	AREA27	DTS	VL40XX	2	4	4	9
GBR A27 DTS40XX °	OFR	DTS	VL40XX	-1	-1	-1	1
GBR A27 FPO0010	AREA27	FPO	VL0010	0	0	0	1742
GBR A27 FPO1012	AREA27	FPO	VL1012	0	0	0	166
GBR A27 FPO1218	AREA27	FPO	VL1218	-1	0	0	81
GBR A27 FPO1824 °	AREA27	FPO	VL1824	-1	-1	-1	12
GBR A27 FPO1824 °	AREA27	FPO	VL2440	-1	-1	-1	2
GBR A27 HOK0010	AREA27	HOK	VL0010	0	0	0	532
GBR A27 HOK1012 °	AREA27	HOK	VL1012	-1	0	-1	17
GBR A27 HOK1012 °	AREA27	HOK	VL1218	-1	-1		0
GBR A27 HOK2440 °	AREA27	HOK	VL1824				0
GBR A27 HOK2440 °	AREA27	HOK	VL2440	0	0	0	11
GBR A27 HOK2440 °	OFR	HOK	VL2440				0
GBR A27 HOK2440 °	OFR	HOK	VL40XX	-1	-1	-1	2
GBR A27 MGP0010 °	AREA27	MGP	VL0010	0	0	0	28
GBR A27 MGP1218 °	AREA27	MGP	VL1012	-1	-1	-1	12
GBR A27 MGP1218 °	AREA27	MGP	VL1218	-1	-1	0	19
GBR A27 MGP1218 °	AREA27	MGP	VL2440				0
GBR A27 PGP0010 °	AREA27	PGP	VL0010	0	0	0	63
GBR A27 PGP0010 °	AREA27	PGP	VL1012	-1	0	0	1
GBR A27 PGP0010 °	AREA27	PGP	VL1218		0		0
GBR A27 PGP0010 °	AREA27	PMP	VL0010	-1	0	0	6
GBR A27 PGP0010 °	AREA27	PMP	VL1012				0
GBR A27 MGP1218 °	AREA27	PS	VL1218			-1	3
GBR A27 TBB0010 °	AREA27	TBB	VL0010	0	0	0	10
GBR A27 TBB0010 °	AREA27	TBB	VL1012	-1	-1	-1	2
GBR A27 TBB1218	AREA27	TBB	VL1218	-1	0	0	10
GBR A27 TBB1824	AREA27	TBB	VL1824	0	0	1	18
GBR A27 TBB2440 °	AREA27	TBB	VL2440	0	0	1	25
GBR A27 TBB2440 °	AREA27	TBB	VL40XX	0	-1	-1	8
GBR A27 MGP0010 °	AREA27	TM	VL0010	-1	-1	-1	2
GBR A27 MGP1218 °	AREA27	TM	VL1012				0
GBR A27 MGP1218 °	AREA27	TM	VL1218	-1	0	0	3
GBR A27 TM40XX °	AREA27	TM	VL2440		0	0	1
GBR A27 TM40XX °	AREA27	TM	VL40XX	0	1	1	27
GBR A27 TM40XX °	OFR	TM	VL40XX				0

Economic – Return on Investment

FS name	supra_reg	fishing_tech	vessel_length	2013	2014	2015	No. of vessels in fleet segment 2015
GBR A27 DFN0010	AREA27	DFN	VL0010	1.42	5.98	-1.77	622
GBR A27 DFN1012 °	AREA27	DFN	VL1012	3.31	14.3	15.37	8
GBR A27 DFN1012 °	AREA27	DFN	VL1218				7
GBR A27 DFN2440 °	AREA27	DFN	VL1824				7
GBR A27 DFN2440 °	AREA27	DFN	VL2440	2.87	22.49	23.77	9
GBR A27 DRB0010	AREA27	DRB	VL0010	-2.16	0.59	8.27	105
GBR A27 DRB1012	AREA27	DRB	VL1012	5.95	17.19	24	32
GBR A27 DRB1218	AREA27	DRB	VL1218	10.74	14.56	12.38	115
GBR A27 DRB1824	AREA27	DRB	VL1824	18.07	13.94	10.64	25
GBR A27 DRB2440 °	AREA27	DRB	VL2440	19.81	17.69	17.73	29
GBR A27 DRB2440 °	AREA27	DRB	VL40XX				2
GBR A27 DTS0010	AREA27	DTS	VL0010	6.74	5.58	3.11	256
GBR A27 DTS1012	AREA27	DTS	VL1012	7.52	9.12	5.63	90
GBR A27 DTS1218 °	AREA27	DTS	VL1218	6.8	8.17	5.91	207
GBR A27 DTS1824	AREA27	DTS	VL1824	6.18	7.46	4.32	171
GBR A27 DTS2440	AREA27	DTS	VL2440	6.04	12.94	7.37	86
GBR A27 DTS40XX °	AREA27	DTS	VL40XX	2.78	49.21	6.03	9
GBR A27 DTS40XX °	OFR	DTS	VL40XX				1
GBR A27 FPO0010	AREA27	FPO	VL0010	2.82	1.72	0.84	1742
GBR A27 FPO1012	AREA27	FPO	VL1012	12.2	18.1	26.39	166
GBR A27 FPO1218	AREA27	FPO	VL1218	14.34	23.41	27.97	81
GBR A27 FPO1824 °	AREA27	FPO	VL1824	21.88	23.48	30.51	12
GBR A27 FPO1824 °	AREA27	FPO	VL2440				2
GBR A27 HOK0010	AREA27	HOK	VL0010	-0.97	-3.59	-2.05	532
GBR A27 HOK1012 °	AREA27	HOK	VL1012	-39.56	-21.56	-8.11	17
GBR A27 HOK1012 °	AREA27	HOK	VL1218				0
GBR A27 HOK2440 °	AREA27	HOK	VL1824				0
GBR A27 HOK2440 °	AREA27	HOK	VL2440	3.89	-0.9	11.61	11
GBR A27 HOK2440 °	OFR	HOK	VL2440				0
GBR A27 HOK2440 °	OFR	HOK	VL40XX				2
GBR A27 MGP0010 °	AREA27	MGP	VL0010	1.47	4.45	6.46	28
GBR A27 MGP0010 °	AREA27	TM	VL0010				2
GBR A27 MGP1218 °	AREA27	MGP	VL1012				12
GBR A27 MGP1218 °	AREA27	MGP	VL1218	3.85	3.78	5.91	19
GBR A27 MGP1218 °	AREA27	MGP	VL2440				0
GBR A27 MGP1218 °	AREA27	PS	VL1218				3
GBR A27 MGP1218 °	AREA27	TM	VL1012				0
GBR A27 MGP1218 °	AREA27	TM	VL1218				3
GBR A27 PGP0010 °	AREA27	PGP	VL0010	9.17	0.56	-1.7	63
GBR A27 PGP0010 °	AREA27	PGP	VL1012				1
GBR A27 PGP0010 °	AREA27	PGP	VL1218				0
GBR A27 PGP0010 °	AREA27	PMP	VL0010				6
GBR A27 PGP0010 °	AREA27	PMP	VL1012				0
GBR A27 TBB0010 °	AREA27	TBB	VL0010	-0.94	-7.57	-4.16	10
GBR A27 TBB0010 °	AREA27	TBB	VL1012				2
GBR A27 TBB1218	AREA27	TBB	VL1218	-14.44	-10.55	3.68	10
GBR A27 TBB1824	AREA27	TBB	VL1824	3.55	2.27	8.03	18
GBR A27 TBB2440 °	AREA27	TBB	VL2440	-9.47	-7.97	-5.18	25
GBR A27 TBB2440 °	AREA27	TBB	VL40XX				8
GBR A27 TM40XX °	AREA27	TM	VL2440				1
GBR A27 TM40XX °	AREA27	TM	VL40XX	8.06	12.61	6.62	27
GBR A27 TM40XX °	OFR	TM	VL40XX				0

Economic – Current Versus Break Even Revenue

FS name	supra_reg	fishing_tech	vessel_length	2014	2015	2016	No. of vessels in fleet segment
				2014	2015	2016	2016
GBR A27 DFN0010	AREA27	DFN	VL0010	1.55	0.75	0.68	590
GBR A27 DFN1012 °	AREA27	DFN	VL1012	2.84	2.04	1.99	10
GBR A27 DFN1012 °	AREA27	DFN	VL1218				6
GBR A27 DFN2440 °	AREA27	DFN	VL1824				7
GBR A27 DFN2440 °	AREA27	DFN	VL2440	2.98	2.14	2.65	7
GBR A27 DRB0010	AREA27	DRB	VL0010	1.02	1.35	1.08	112
GBR A27 DRB1012	AREA27	DRB	VL1012	1.7	1.85	1.38	31
GBR A27 DRB1218	AREA27	DRB	VL1218	1.79	1.76	2.26	111
GBR A27 DRB1824	AREA27	DRB	VL1824	1.79	1.73	2.41	24
GBR A27 DRB2440 °	AREA27	DRB	VL2440	1.99	1.89	1.88	27
GBR A27 DRB2440 °	AREA27	DRB	VL40XX				3
GBR A27 DTS0010	AREA27	DTS	VL0010	1.42	1.21	1.86	237
GBR A27 DTS1012	AREA27	DTS	VL1012	2.24	1.83	2.11	85
GBR A27 DTS1218 °	AREA27	DTS	VL1218	1.84	1.73	2.26	201
GBR A27 DTS1824	AREA27	DTS	VL1824	2.05	1.89	2.62	167
GBR A27 DTS2440	AREA27	DTS	VL2440	3.19	3.11	3.89	87
GBR A27 DTS40XX °	AREA27	DTS	VL40XX	5.88	2.29	1.96	8
GBR A27 DTS40XX °	OFR	DTS	VL40XX				1
GBR A27 FPO0010	AREA27	FPO	VL0010	1.1	1	1.51	1814
GBR A27 FPO1012	AREA27	FPO	VL1012	2.24	2.7	2.89	178
GBR A27 FPO1218	AREA27	FPO	VL1218	1.86	1.98	2.11	80
GBR A27 FPO1824 °	AREA27	FPO	VL1824	2.2	2.12	2.23	13
GBR A27 FPO1824 °	AREA27	FPO	VL2440				2
GBR A27 HOK0010	AREA27	HOK	VL0010	0.48	0.55	1.24	541
GBR A27 HOK1012 °	AREA27	HOK	VL1012	0.06	-0.1	0.02	18
GBR A27 HOK1012 °	AREA27	HOK	VL1218				1
GBR A27 HOK2440 °	AREA27	HOK	VL1824				0
GBR A27 HOK2440 °	AREA27	HOK	VL2440	0.99	1.52	1.25	13
GBR A27 HOK2440 °	OFR	HOK	VL2440				0
GBR A27 HOK2440 °	OFR	HOK	VL40XX				1
GBR A27 MGP0010 °	AREA27	MGP	VL0010	1.38	1.17	0.61	13
GBR A27 MGP0010 °	AREA27	TM	VL0010				3
GBR A27 MGP1218 °	AREA27	MGP	VL1012				0
GBR A27 MGP1218 °	AREA27	MGP	VL1218	1.85	1.87	3.66	6
GBR A27 MGP1218 °	AREA27	MGP	VL2440				0
GBR A27 MGP1218 °	AREA27	PS	VL1218				5
GBR A27 MGP1218 °	AREA27	TM	VL1012				0
GBR A27 MGP1218 °	AREA27	TM	VL1218				3
GBR A27 PGP0010 °	AREA27	PGP	VL0010	1.1	0.69	1.45	91
GBR A27 PGP0010 °	AREA27	PGP	VL1012				0
GBR A27 PGP0010 °	AREA27	PGP	VL1218				0
GBR A27 PGP0010 °	AREA27	PMP	VL0010				8
GBR A27 PGP0010 °	AREA27	PMP	VL1012				0
GBR A27 TBB0010 °	AREA27	TBB	VL0010	-0.23	0.95	3.44	20
GBR A27 TBB0010 °	AREA27	TBB	VL1012				11
GBR A27 TBB1218	AREA27	TBB	VL1218	-0.86	1.86	1.63	24
GBR A27 TBB1824	AREA27	TBB	VL1824	2.36	2.54	3.48	17
GBR A27 TBB2440 °	AREA27	TBB	VL2440	0.8	1.3	2.01	25
GBR A27 TBB2440 °	AREA27	TBB	VL40XX				8
GBR A27 TM40XX °	AREA27	TM	VL2440				1
GBR A27 TM40XX °	AREA27	TM	VL40XX	4.94	3.27	4.25	27
GBR A27 TM40XX °	OFR	TM	VL40XX				0

Appendix E. Results for balance indicators produced by the MMO

Economic – Return on Investment:

	Fleet segment - as defined by JRC indicators	Return on Investment			Number of vessels in fleet segment (2016)
		2014	2015	2016	
DFN					
	GBR A27 DFN0010	4.65	-2.45	-0.12	590
	GBR A27 DFN1012 °	12.07	15.07	10.53	16
	GBR A27 DFN2440 °	20.40	26.74	9.76	14
DRB					
	GBR A27 DRB0010	-2.04	0.59	0.86	112
	GBR A27 DRB1012	14.69	14.37	3.29	31
	GBR A27 DRB1218	11.99	6.77	5.35	111
	GBR A27 DRB1824	11.90	7.41	5.43	24
	GBR A27 DRB2440 °	14.93	13.90	3.87	30
DTS					
	GBR A27 DTS0010	3.15	1.40	14.06	237
	GBR A27 DTS1012	9.18	5.83	12.67	85
	GBR A27 DTS1218 °	7.44	5.18	11.47	201
	GBR A27 DTS1824	8.55	4.92	15.41	167
	GBR A27 DTS2440	21.29	12.91	36.51	87
	GBR A27 DTS40XX °	48.77	2.26	9.58	9
FPO					
	GBR A27 FPO0010	-0.71	-1.65	13.88	1814
	GBR A27 FPO1012	15.06	22.47	30.64	178
	GBR A27 FPO1218	20.42	21.95	28.43	80
	GBR A27 FPO1824 °	20.83	24.71	35.56	15
HOK					
	GBR A27 HOK0010	-3.36	-1.99	2.97	541
	GBR A27 HOK1012 °	-24.46	-4.20	-1.13	19
	GBR A27 HOK2440 °	-3.20	18.36	24.47	14
MGP					
	GBR A27 MGP0010 °	1.75	-0.82	7.01	16
	GBR A27 MGP1218 °	3.02	2.28	5.96	14
PGP					
	GBR A27 PGP0010 °	-1.37	-4.10	1.96	99
TBB					
	GBR A27 TBB0010 °	-9.44	1.20	6.32	31
	GBR A27 TBB1218	-11.60	4.44	5.86	24
	GBR A27 TBB1824	5.25	7.62	16.54	17
	GBR A27 TBB2440 °	-6.05	2.71	17.71	33
TM					
	GBR A27 TM40XX °	9.76	4.45	12.21	28

Economic – Current versus Breakeven Revenue:

	Fleet segment - as defined by JRC indicators	vessels in fleet segment			
		2014	2015	2016 (2016)	
DFN					
	GBR A27 DFN0010	1.23	1.72	1.00	590
	GBR A27 DFN1012	1.67	2.98	3.07	16
	GBR A27 DFN2440 °	1.63	3.03	3.15	14
DRB					
	GBR A27 DRB0010	0.88	1.06	1.20	112
	GBR A27 DRB1012	1.26	1.72	1.72	31
	GBR A27 DRB1218	1.66	1.83	1.75	111
	GBR A27 DRB1824	2.33	1.88	1.91	24
	GBR A27 DRB2440 °	2.26	2.01	1.96	30
DTS					
	GBR A27 DTS0010	1.58	1.48	1.28	237
	GBR A27 DTS1012	2.22	2.31	1.97	85
	GBR A27 DTS1218 °	1.89	1.86	1.82	201
	GBR A27 DTS1824	1.97	2.10	2.00	167
	GBR A27 DTS2440	2.66	3.27	3.11	87
	GBR A27 DTS40XX °	1.19	6.26	2.84	9
FPO					
	GBR A27 FPO0010	1.26	1.14	1.05	1814
	GBR A27 FPO1012 °	1.69	2.29	2.86	178
	GBR A27 FPO1218	1.61	1.88	2.03	80
	GBR A27 FPO1824 °	1.97	2.26	2.25	15
HOK					
	GBR A27 HOK0010	0.94	0.90	1.10	541
	GBR A27 HOK1012 °	0.10	0.05	0.64	19
	GBR A27 HOK2440 °	1.07	0.99	3.21	14
MGP					
	GBR A27 MGP0010 °	1.10	1.42	1.08	16
	GBR A27 MGP1218 °	1.49	1.94	1.85	14
PGP					
	GBR A27 PGP0010 °	0.79	1.22	0.76	99
TBB					
	GBR A27 TBB0010 °	1.05	-0.25	1.22	31
	GBR A27 TBB1218	0.24	-0.95	1.98	24
	GBR A27 TBB1824	2.30	2.45	2.77	17
	GBR A27 TBB2440 °	0.81	0.80	1.33	33
TM					
	GBR A27 TM40XX °	1.78	5.17	3.88	28

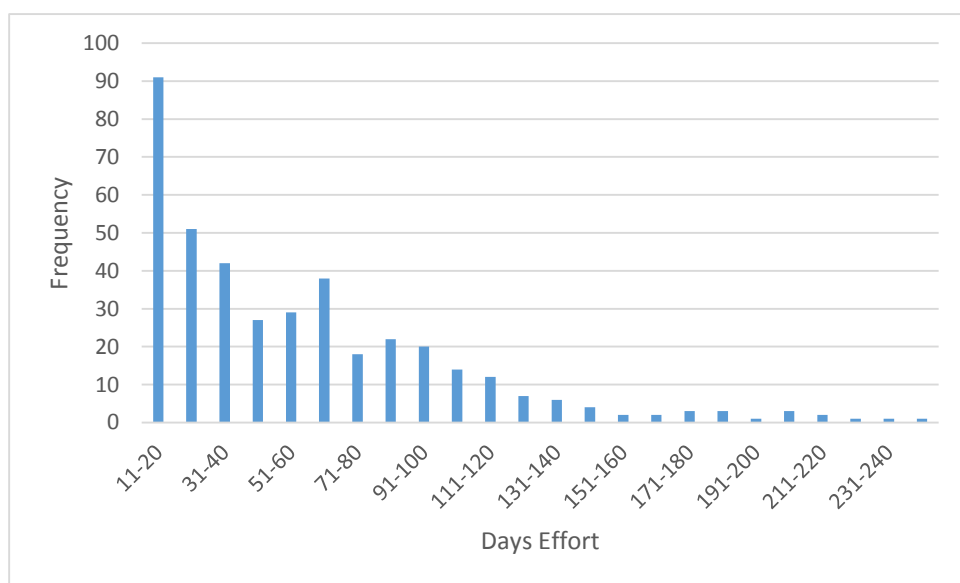
Technical – Vessel Utilisation Indicator:

Fleet segment - as defined by JRC indicators		2014	2015	2016	Number of vessels in fleet segment (2016)
DFN					
GBR A27 DFN0010		0.27	0.25	0.26	590
GBR A27 DFN1012 °		0.58	0.58	0.58	16
GBR A27 DFN2440 °		1.06	1.04	1.12	14
DRB					
GBR A27 DRB0010		0.27	0.33	0.33	112
GBR A27 DRB1012		0.52	0.50	0.60	31
GBR A27 DRB1218		0.58	0.57	0.66	111
GBR A27 DRB1824		0.86	0.88	0.95	24
GBR A27 DRB2440 °		0.86	0.97	0.94	30
DTS					
GBR A27 DTS0010		0.42	0.41	0.43	237
GBR A27 DTS1012		0.58	0.52	0.59	85
GBR A27 DTS1218 °		0.70	0.67	0.75	201
GBR A27 DTS1824		0.78	0.78	0.82	167
GBR A27 DTS2440		0.91	0.97	0.97	87
GBR A27 DTS40XX °		1.10	0.92	1.06	9
FPO					
GBR A27 FPO0010		0.51	0.54	0.50	1814
GBR A27 FPO1012		0.69	0.71	0.69	178
GBR A27 FPO1218		0.77	0.74	0.82	80
GBR A27 FPO1824 °		1.19	1.15	1.09	15
HOK					
GBR A27 HOK0010		0.19	0.21	0.19	541
GBR A27 HOK1012 °		0.32	0.41	0.40	19
GBR A27 HOK2440 °		1.18	1.09	1.08	14
MGP					
GBR A27 MGP0010 °		0.40	0.33	0.26	16
GBR A27 MGP1218 °		0.40	0.42	0.53	14
PGP					
GBR A27 PGP0010 °		0.26	0.22	0.21	99
TBB					
GBR A27 TBB0010 °		0.48	0.32	0.19	31
GBR A27 TBB1218		0.58	0.64	0.49	24
GBR A27 TBB1824		1.13	1.10	1.15	17
GBR A27 TBB2440 °		1.01	0.97	1.04	33
TM					
GBR A27 TM40XX °		0.33	0.33	0.30	28

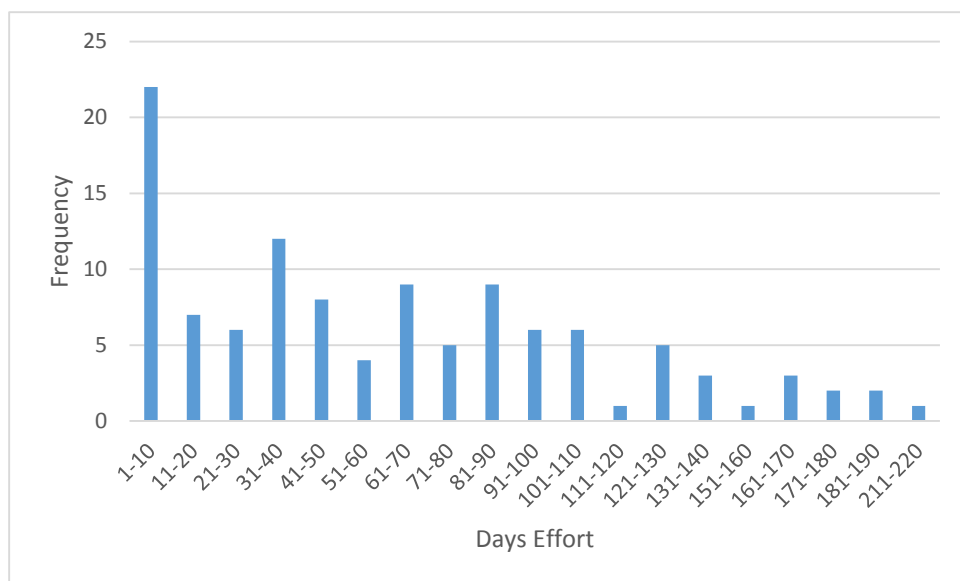
Appendix F. Vessel Utilisation Indicator analysis

Nine of the segments above the threshold for this indicator when the standard value of 220 days per year is used as the basis of the comparison relate to vessels under 10m in length. These vessels are often engaged in highly seasonal patterns of activity. They may thus fish for only limited periods of the year as opposed to the level of 220 days that could be more applicable to larger vessels. They also vary significantly in their circumstances, ranging from vessels kept on as a hobby up to vessels operating at a level of activity that can exceed that of some vessels over 10m in length. As such the UK considers that the heterogeneous nature of vessels within each fleet segment and the seasonal restrictions on fishing makes it inappropriate to draw conclusions on fleet utilisation from the vessel utilisation indicator. This appendix provides evidence in support of this statement in the form of frequency distributions of days effort for the under 10 fleet segments in 2016. These show a wide range of effort levels within each segment with a large amount of effort between 0-100 days. The UK feels the VUI an unsuitable measure of fleet utilisation.

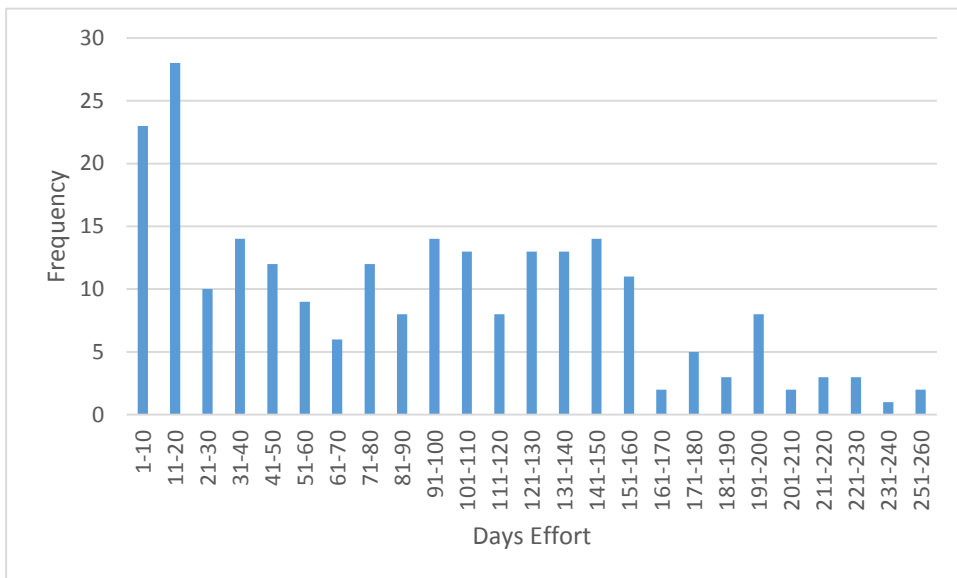
DFN VL0010 – Median: 23



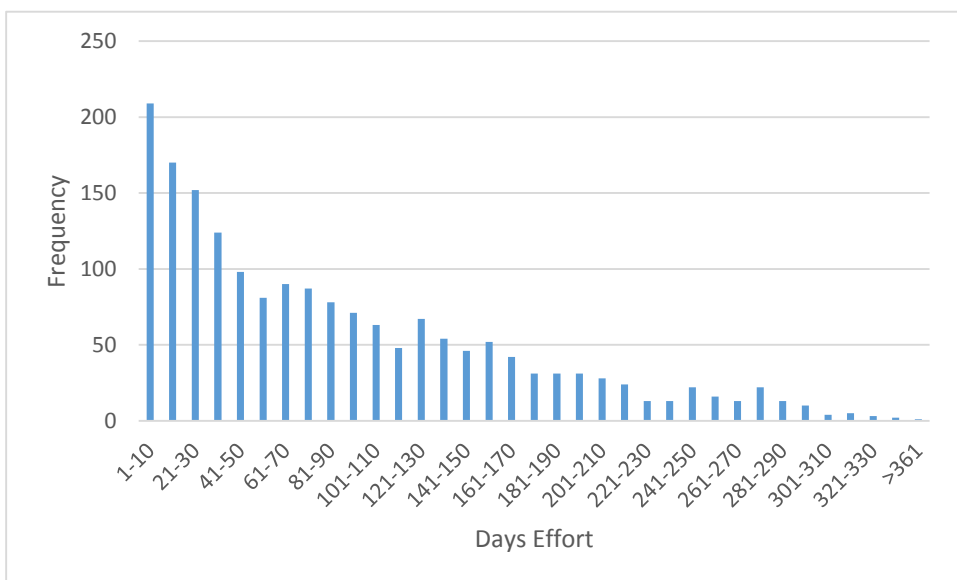
DRB VL0010 - Median: 55



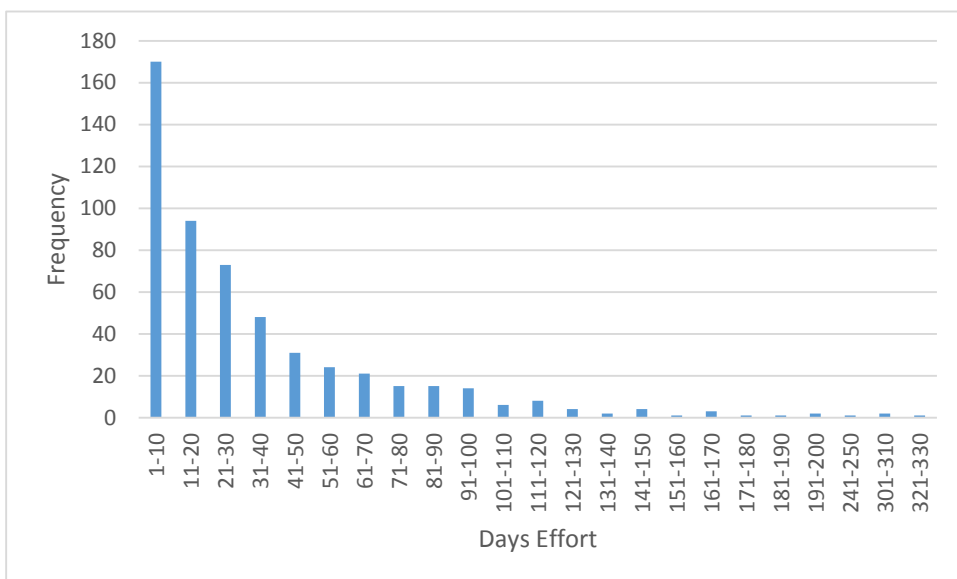
DTS VL0010 – Median: 87



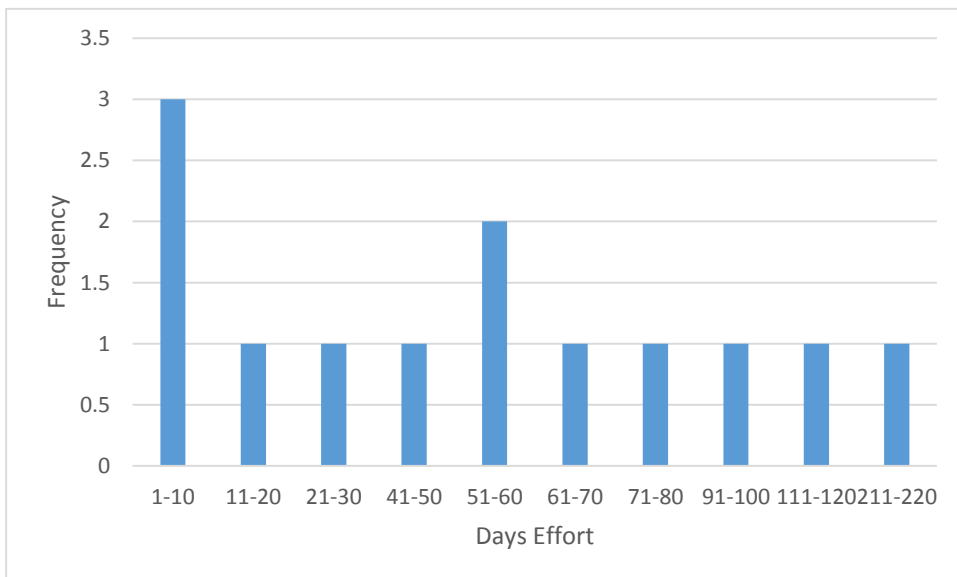
FPO VL0010 – Median: 68



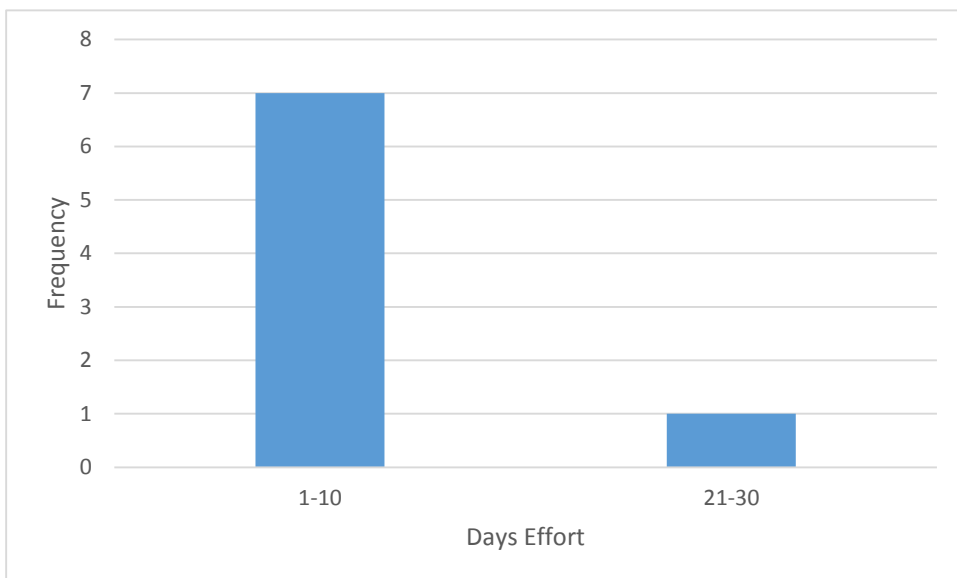
HOK VL0010 – Median: 21



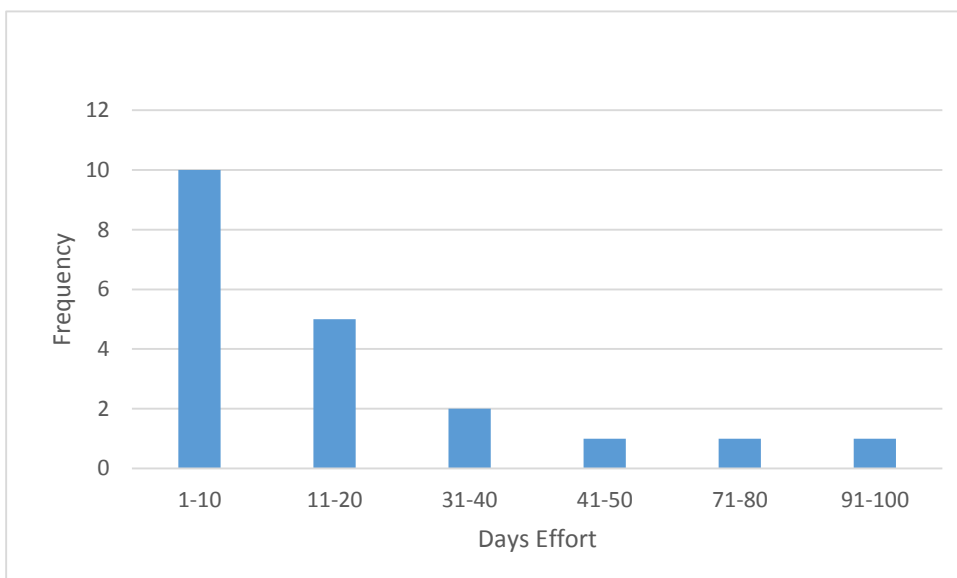
MGP VL0010 – Median: 51



PMP VL0010 – Median: 7



TBB VL0010 – Median: 8.5



TM VL0010 – Median: 41

