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NOV Rig
Technologies

NOV rig census shows pandemic's historic impact on drilling industry

Global rig demand has fallen to lowest point in census history, dating to 1955; North America has been hardest-hit, with Permian utilization at just 26%

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THE START OF ANY 2020 CENSUS, IN any industry or any part of the world, must begin with the impact of COVID-19. For oil and gas, the impact was a drastic drop in demand. Oil and gas drilling has been one of the most negatively impacted industries during the pandemic, and recovery appears to be slower than everyone had hoped.

Early in the pandemic, the industry was further impacted by the market share war between Saudi Arabia and Russia that led to oversupply at a very low price, as well as an associated build in oil inventories that poor demand is slow to draw down. Operators quickly cut CAPEX budgets by 20-30%. As of late October, oil price was still only slowly regaining to a level at which operations can be stable and still some time away from a price that stimulates growth in rig demand.

Global rig demand in the census period has fallen by 82% from its peak in 2014. It now sits at the lowest point in census history,

dating back to 1955. The North America land market has been the hardest-hit, with its active rig count dropping to 398. This is a two-thirds decline compared with the 2019 census, and it may fall even further before year-end. Within this market, the decrease was felt the most in the Permian Basin, where utilization dropped from 74% to a grim 26%.

Offshore has not been spared either, although the effects of the pandemic take longer to play out due to the longer-term nature of projects and contracts. Operators were quick to cancel or suspend any contracts that did not penalize early termination harshly. Many contracts were also renegotiated with lower dayrates. We expect the offshore utilization to continue its decline for the rest of the year, with a possible recovery beginning in the latter parts of 2021.

CENSUS HIGHLIGHTS

Key statistics from the 2020 census include:

- The US fleet, both land and offshore, decreased slightly by 21 rigs to a total of 1,939 rigs. This change is the result of 27 rig deletions offset by a total of just six rig additions.
- Active rigs in the US fleet fell to its lowest number ever recorded, at 440 rigs. This represents a 23% utilization, combined land and offshore, which is the second lowest in census history dating back to 1955. 2016 was the year with the lowest utilization rate, at 20%. Only one other time – in 1986 when the utilization rate was 26% – has the utilization been in the 20% range.
- The Canadian fleet experienced record lows with utilization of just 7%.
- The global offshore mobile rig fleet decreased by approximately 4%. Utilization rates dropped by 2% to 67% and is still falling. The total number of active offshore mobile rigs was 437, which is the lowest it has been in this century.
- In response to market pressures, inter-

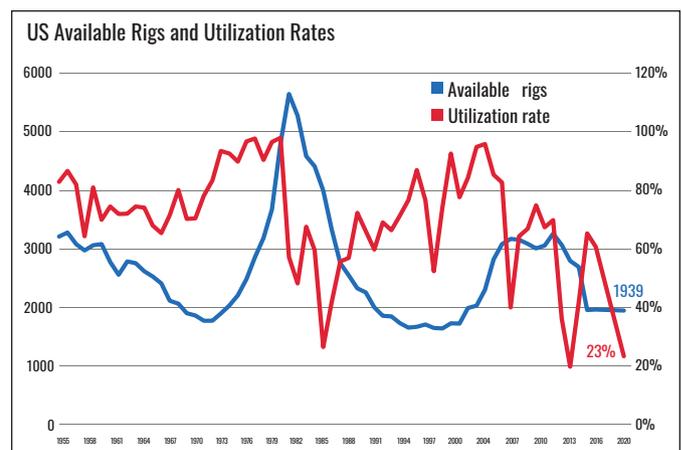
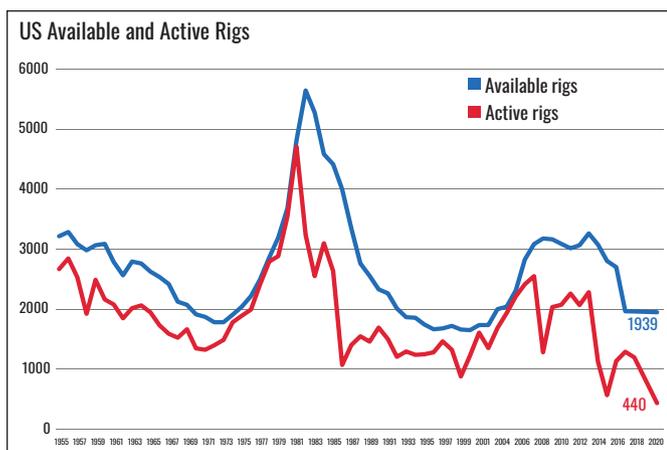


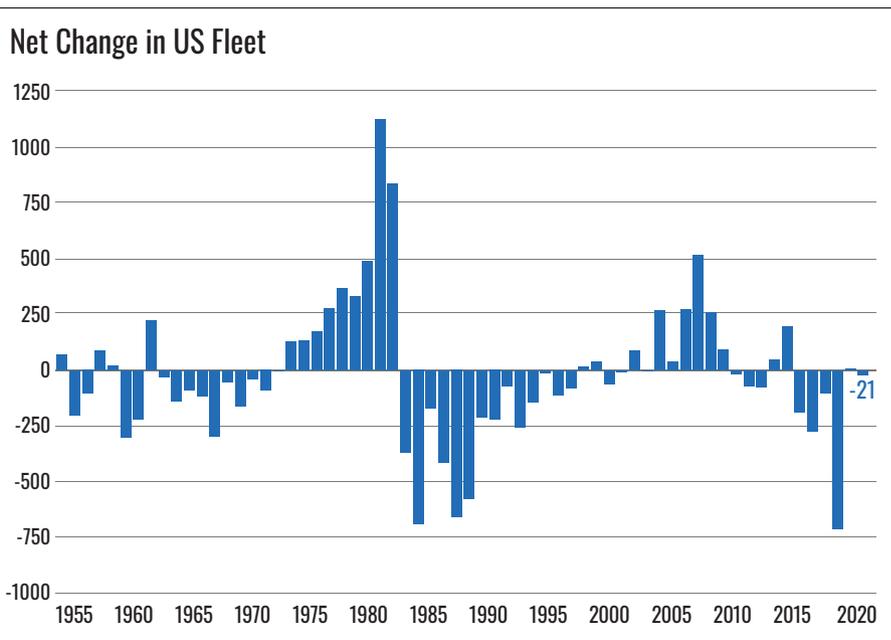
FIGURE 1 (LEFT): The US available fleet, both land and offshore, had a net decrease of 21 rigs for a total of 1,939 available rigs. During the census period, only 440 of those rigs worked. FIGURE 2 (RIGHT): Utilization in the US decreased drastically to only 23% this year from 61% in 2019.

TABLE 1: GLOBAL OFFSHORE MOBILE FLEET, 2001-2020

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
Previous year's fleet for each census period	680	700	711	751	825	847	789	753	794	745	705	675	650	654	641	673	678	677	670	n/a
Reductions to Fleet																				
Removed from service	-43	-49	-40	-67	-99	-72	-13	-14	-30	-7	-2	-11	-7	-26	-10	-42	-15	-2	-2	n/a
Destroyed	0	0	0	0	0	0	-2	-1	-2	0	-4	-3	0	0	-6	-3	-1	-3	0	n/a
Subtotal Deletions	-43	-49	-40	-67	-99	-72	-15	-15	-32	-7	-6	-14	-7	-26	-16	-45	-16	-5	-2	n/a
Additions to Fleet																				
Newly manufactured	18	24	24	21	20	48	64	44	45	47	40	43	28	11	9	4	9	5	8	n/a
Reactivated or assembled from parts	0	5	5	6	5	2	9	7	6	9	6	1	4	11	20	9	2	1	1	n/a
Subtotal Additions	18	29	29	27	25	50	73	51	51	56	46	44	32	22	29	13	11	6	9	n/a
Net Change	-25	-20	-11	-40	-74	-22	58	36	19	49	40	30	25	-4	13	-32	-5	1	7	N/A
Total Available Rigs	655	680	700	711	751	825	847	789	753	794	745	705	675	650	654	641	673	678	677	670
Total Active Rigs	437	468	452	448	498	649	721	702	636	559	572	571	592	574	557	545	486	479	460	488
Utilization	67%	69%	65%	63%	66%	79%	85%	89%	84%	70%	77%	81%	88%	88%	85%	85%	72%	71%	68%	73%

TABLE 1 (ABOVE): The overall size of the global offshore mobile fleet remained roughly the same as 2019, shrinking only by 4%. The 43 rigs removed from the fleet were offset by 18 newly manufactured rigs - 17 jackups and one semisubmersible. Most of these newbuilds remain hot-stacked at yards and without contracts, however.

FIGURE 3 (RIGHT): There was only a small decrease in the number of available rigs in the US fleet in this year's census. A total of 27 rigs were removed from the US rig fleet since the previous census. This is 17 fewer rig removals compared with the 2019 census and 267 rigs fewer than the 10-year average for rig removals in the US. This year's census also counted six new rigs manufactured and delivered to the US market since 2019.



national land rig count was starting to drop at the time of the census and has declined further since then, reaching historic lows in some countries in South America.

GROUND RULES

- Contractor-owned rigs belong to companies whose primary business is offering drilling contracting services.
- To be considered as active, a rig must be drilling at least one day during the 45-day qualification period during the early summer

each year.

- Only workable rotary rigs are included; cable tool rigs are excluded.
- To be considered as available, a rig must be able to go to work without requiring significant CAPEX.
- Rotary land rigs stacked for an extended period of time, typically three years or longer, are not counted as available. Offshore rigs must not be stacked for longer than five years.
- A rig must be capable of, and normally

employed for, drilling deeper than 3,000 ft. Therefore, some shallow drilling rigs are excluded. This ensures well-servicing rigs are not counted.

- Electric rigs include all those that transmit power from prime movers to electrically driven equipment.
- Inland barges include barge-mounted rigs that may be moved from one location to another via canal, bayou or river and drill in sheltered inland waters.
- Offshore rigs include stationary plat-

TABLE 2: CANADIAN RIG FLEET, 2006-2020

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006
Previous year's fleet during census period	458	464	591	627	612	796	777	747	774	795	852	875	871	799	741
Reductions to Fleet															
Removed from service	-29	-21	-146	-47	-24	-206	-38	-52	-67	-63	-94	-17	-24	-6	-7
Moved out of the country	0	-3	-6	-3	0	-10	-11	-21	-33	-11	-17	-42	-19	-10	-8
Destroyed	-2	-1	0	0	0	0	0	0	0	0	0	0	-1	0	0
Subtotal Deletions	-31	-25	-152	-50	-24	-216	-49	-73	-100	-74	-111	-59	-44	-16	-15
Additions to Fleet															
Newly manufactured	0	6	4	5	21	10	24	64	35	8	15	29	47	86	63
Reactivated or assembled from parts	0	12	20	8	18	8	32	33	34	35	35	2	1	2	10
Moved into the country	0	1	1	1	0	7	12	6	4	10	4	5	0	0	0
Subtotal Additions	0	19	25	14	39	25	68	103	73	53	54	36	48	88	73
Net Change	-31	-6	-127	-36	15	-191	19	30	-27	-21	-57	-23	4	72	58
Total Available Rigs	427	458	464	591	627	612	796	777	747	774	795	852	875	871	799
Total Active Rigs	29	160	194	206	91	163	352	289	329	369	334	191	406	371	669
Utilization	7%	35%	42%	35%	15%	27%	44%	37%	44%	48%	42%	22%	46%	43%	84%

TABLE 2: The number of active rigs in Canada plummeted in this year's census to only 29 rigs. This brought the utilization rate for the fleet down to the single digits.

TABLE 3: GLOBAL OFFSHORE MOBILE FLEET, 2001-2020

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001
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Subtotal Additions	18	29	29	27	25	50	73	51	51	56	46	44	32	22	29	13	11	6	9	n/a
Net Change	-25	-20	-11	-40	-74	-22	58	36	19	49	40	30	25	-4	13	-32	-5	1	7	N/A
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Utilization	67%	69%	65%	63%	66%	79%	85%	89%	84%	70%	77%	81%	88%	88%	85%	85%	72%	71%	68%	73%

TABLE 3: The utilization rate for Mobile Offshore Drilling Units (MODUs) globally decreased to 67% in this year's census, from 69% in 2019. This is the first year-on-year decline in utilization since the MODU market hit the bottom during the previous downturn in 2017.

FIGURE 4: The Far East, with 13% of the world's active offshore mobile fleet, has overtaken Northwest Europe in the 2020 census as the region with the second most active mobile offshore drilling units. The Middle East remains the most active, with 26.6%.

form units (both self-contained and tender-supported), bottom-supported mobile units, and floating rigs (both drillships and semi-submersibles).

US FLEET

The US rig fleet for both land and offshore total 1,939 rigs, of which 120 were offshore. This is the smallest the US rig fleet has been in the past decade and 40% lower than the decade's peak of 3,254, rigs seen in 2014.

US RIG ADDITIONS

Only six new rigs were manufactured and delivered to the US market since the previous census. From 2006 to 2015, the US added an average of 205 rigs each year. That average has dropped to just 35 new rigs each year over the past four years, from 2016 to 2019.

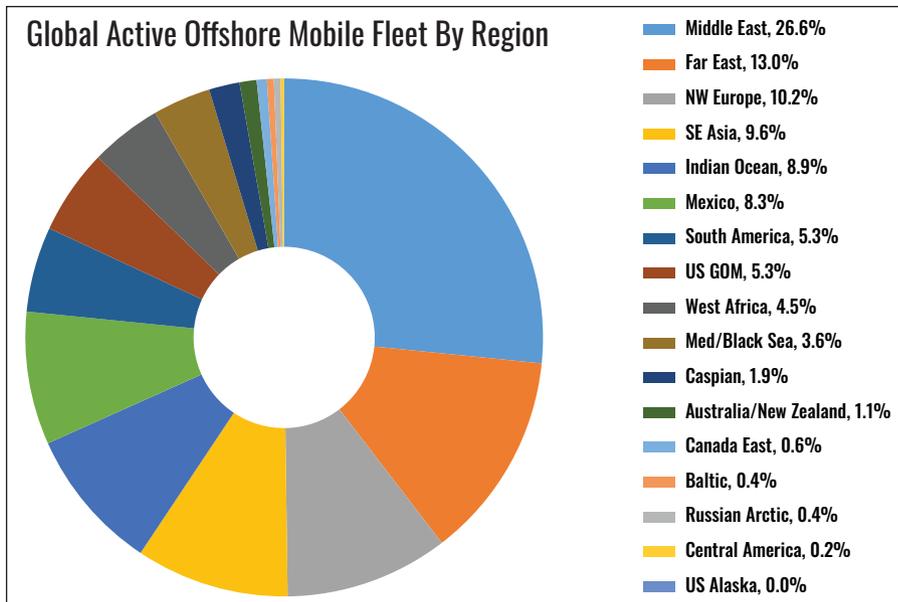
There were no new additions to the offshore mobile rig fleet in the US. Despite high utilization for the drillship fleet in the US Gulf of Mexico, there is not enough demand to increase dayrates to a point where new-builds are being considered.

The six new rigs were for land, and all were triples, 1,500- to 2,000-hp; one was SCR and the remaining six were AC as is more commonly seen in US land.

US RIG ATTRITION

If it can be determined that a rig is cold-stacked, it is removed from the count of the available fleet. Extensively damaged rigs are also taken out of the count. Rigs that have moved to other countries are not counted as available in the US; however, they may show up in the international tally.

All rigs removed from the fleet in each of these cases are totaled as "Deletions to the US Fleet." A total of 27 rigs were removed from the US rig fleet since the previous census. This is 17 fewer rig removals compared with the 2019 census, when 44 rigs were removed, and 267 rigs fewer than the 10-year average for rig removals in the US. The 2020 rig removals consisted of three semisubmersibles, two jackups, four inland barges and 18 land rigs. Eleven of these rigs were removed according to census rules, while 16 were scrapped.



CANADIAN FLEET

The total Canadian rig fleet continued its decline, dropping by 7% to 427 units since the 2019 census. There were eight offshore rigs. Only 29 of the 427 units in Canada were active, which leads to a utilization rate of just 7%. A total of 31 rigs were removed from the Canadian fleet, two of which were officially scrapped. The remaining rigs were removed according to census rules for not being active in the previous three-year period.

Last year there were 19 new additions to the fleet; this year, there were no new rig additions for Canada. Further, no rigs were reactivated or moved into the country, and no rigs were moved out of the country. All of this leaves the Canadian rig fleet at its lowest level in 15 years.

GLOBAL OFFSHORE MOBILE FLEET

The global offshore mobile fleet decreased by 4% compared with the 2019 census, bringing the total number of available offshore mobile rigs down from 680 to 655.

A total of 43 rigs were removed. Only 33 rigs were scrapped, which is six fewer than 2019 and 19 rigs fewer than the average number of rigs removed per year since 2014. Semisubmersible rigs were hardest hit, with 15 scrapped, followed by 10 jackups, seven drillships and one platform rig.

The removals were offset by 18 newbuilds, of which 17 were jackups. Most of these jackups remain hot-stacked at the yards without contracts. One semisubmersible was also released and remains hot-stacked without a contract. This is the first year since 2006 that not a single new drillship entered the fleet. While 17 new drillships remain under

construction for release in 2021 and beyond, deliveries from shipyards will continue to see delays, as has been the trend the past couple of years. Some rigs will end up being owned by the shipyards due to contractual disputes.

Looking regionally, the Middle East continues to have the largest share of the global offshore fleet, with 26% of the fleet. The rigs there are almost exclusively jackups.

The Far East region now makes up 13% of the global offshore fleet, also mostly jackups, and has overtaken Northwest Europe, which holds 10%. However, Northwest Europe has a more even split of jackup vs harsh-environment semisubmersibles and is the region with the most semisubmersibles. Drillships dominate in the US Gulf of Mexico, with 22 drillships in a region and just over 5% of the global offshore mobile fleet in total.

US DRILLING ACTIVITY

The methodology used to count active rigs for the NOV census is different from other published rig counts. While most other rig counts look at weekly activity, the NOV census counts a rig as active if it has drilled at any time during a defined 45-day period in early summer. For 2020, the window of activity was 6 May through 20 June. This methodology has been set as standard for the NOV rig census since 1955.

The number of combined onshore and offshore active rigs in the US dropped significantly to just 440, one-third the level of 2019 and the lowest level recorded in NOV's census history dating back to 1955. This is only the third time the rig count has dipped below 1,000 active rigs. The first time came in 1999, when active rigs in the US hit a low of

TABLE 4: US FLEET BY REGION

Region	Year	Available	Active	Utilization	Ownership		Power Source		Rig Type					Total Offshore
					Driller	Operator	Mechanical	SCR/Electric	Land	Barge	Floating	Platform	Bottom Supported	
Alaska	2020	31	17	55%	15	16	2	29	14			16	1	17
	2019	38	8	21%	28	10	1	18	20			16	2	18
Northern Rockies	2020	82	20	24%	82	0	11	71	82					0
	2019	153	102	67%	135	15	18	132	150					0
Southern Rockies	2020	146	15	10%	146	0	27	119	146					0
	2019	90	49	54%	87	3	12	78	90					0
Northeast states	2020	184	51	28%	183	1	42	142	184					0
	2019	188	92	49%	154	34	48	140	188					0
Permian Basin	2020	720	184	26%	720	0	115	605	720					0
	2019	635	467	74%	605	30	128	507	635					0
Gulf Coast	2020	274	88	32%	258	16	47	227	183	18	26	32	15	91
	2019	332	197	59%	278	60	40	292	234	22	26	35	15	98
ArkLaTex	2020	118	41	35%	118	0	15	103	118					0
	2019	162	95	59%	140	22	71	91	162					0
California	2020	39	18	46%	17	12	14	25	27			12		12
	2019	50	24	48%	33	17	15	24	38			12		12
Southeast States	2020	91	7	8%	90	1	49	42	91					0
	2019	15	6	40%	15	3	0	10	15					0
Mid-Continent	2020	255	35	14%	249	5	94	160	255					0
	2019	252	136	54%	199	53	99	153	252					0
Total	2020	1940	476	25%	1878	51	416	1523	1820	18	26	60	16	120
	2019	1912	1176	62%	1674	247	432	1445	1784	22	26	63	17	128

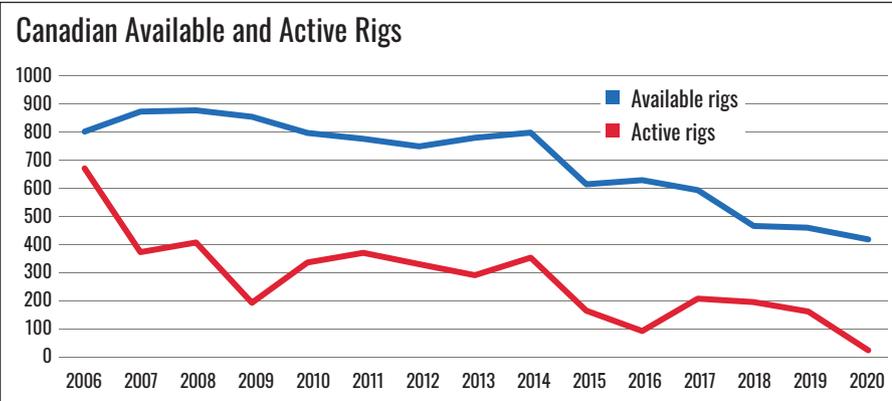


TABLE 4 (ABOVE): The effects of the pandemic have hit the US rig fleet especially hard this year. Even rigs in the Permian Basin saw utilization drop from 74% in 2019 to only 26% in this year’s census. **FIGURE 5 (LEFT):** The decline in the number of active rigs in the Canadian market accelerated significantly this year. There was a drop from 160 active rigs in 2019 to only 29 active rigs in the 2020 census.

860. In 2016, the count dipped briefly to 577 rigs before jumping back up to 1,150 in 2017.

Of course, such low activity also reflects low utilization. Overall, the US saw just 23% utilization. Even the most active region, the Permian Basin, saw only 26% utilization in

this year’s census, which is down from 74% in 2019.

Looking at the US land fleet in more detail (Table 5), rigs can be compared by their drilling capacity. The largest rigs – those with a drilling capacity greater than 20,000 ft –

had the highest utilization rate in the 2019 census, with 77% utilization. Surprisingly, those same rigs had a utilization rate of only 13% in this year’s census. Rigs with drilling depth capacities between 6,000-9,000 ft had the highest utilization rate this year, at 17%, although there are significantly fewer rigs in this segment (163 rigs) compared with the rigs capable of drilling 20,000 ft or more (850

TABLE 5: US RIG UTILIZATION BY DEPTH RATING

By Region	Status	Depth Rating, ft.						Total
		Over 20,000	16,000 to 19,999	13,000 to 15,999	10,000 to 12,999	6,000 to 9,999	3,000 to 5,999	
Alaska	Available	10	1	3	3	0	14	31
	Active	2	0	0	1	0	14	17
	Idle	8	1	3	2	0	0	14
	Utilization	20%	0%	0%	33%	-	-	55%
Northern Rockies	Available	53	19	1	1	6	2	82
	Active	13	6	0	0	1	0	20
	Idle	40	13	1	1	5	2	62
	Utilization	25%	32%	0%	0%	17%	-	24%
Southern Rockies	Available	52	50	24	11	9	0	146
	Active	4	6	4	0	1	0	15
	Idle	48	44	20	11	8	0	131
	Utilization	8%	12%	17%	0%	11%	-	10%
Northeast States	Available	76	24	26	24	20	14	184
	Active	0	1	0	2	2	0	5
	Idle	76	23	26	22	18	14	179
	Utilization	0%	4%	0%	8%	10%	0%	3%
Permian Basin	Available	379	169	93	40	31	8	720
	Active	28	6	6	6	3	2	51
	Idle	351	163	87	34	28	6	669
	Utilization	7%	4%	6%	15%	10%	25%	7%
Gulf Coast	Available	160	37	33	17	15	22	284
	Active	70	5	6	2	2	3	88
	Idle	90	32	27	15	13	19	196
	Utilization	44%	14%	18%	12%	13%	14%	31%
ArkLaTex	Available	59	31	14	7	7	0	118
	Active	24	10	4	1	2	0	41
	Idle	35	21	10	6	5	0	77
	Utilization	41%	32%	29%	14%	29%	0%	35%
California	Available	0	3	2	5	8	21	39
	Active	0	0	0	0	4	16	20
	Idle	0	3	2	5	4	5	19
	Utilization	-	0%	0%	0%	50%	76%	51%
Southeast States	Available	26	10	10	14	24	7	69
	Active	1	1	0	3	2	0	7
	Idle	25	9	10	11	0	7	62
	Utilization	4%	10%	0%	21%	0%	0%	10%
Mid-Continent	Available	106	48	26	10	44	20	254
	Active	11	7	4	0	10	3	35
	Idle	42	41	22	10	34	17	166
	Utilization	10%	15%	15%	0%	23%	15%	14%
By Rig Type								
Inland Barge	Available	13	1	3	0	0	1	18
	Active	1	1	0	0	0	0	2
	Idle	12	0	3	0	0	1	16
	Utilization	8%	100%	0%	0%	0%	0%	11%
Floating	Available	26	0	0	0	0	0	26
	Active	18	0	0	0	0	0	18
	Idle	8	0	0	0	0	0	8
	Utilization	69%	0%	0%	0%	0%	0%	69%
Land	Available	850	387	226	129	164	63	1819
	Active	238	74	33	15	31	7	398
	Idle	612	313	193	114	133	56	1421
	Utilization	28%	19%	15%	12%	19%	11%	22%
Offshore Platform	Available	16	4	3	3	1	33	60
	Active	8	1	0	0	0	10	19
	Idle	8	3	3	3	1	23	41
	Utilization	50%	25%	0%	0%	0%	30%	32%
Bottom Supported	Available	16	0	0	0	0	0	16
	Active	3	0	0	0	0	0	3
	Idle	13	0	0	0	0	0	13
	Utilization	19%	0%	0%	0%	0%	0%	19%
Total	Available	921	392	232	132	165	97	1939
	Active	268	76	33	15	31	17	440
	Idle	653	316	199	117	134	80	1499
	Utilization	29%	19%	14%	11%	19%	18%	23%

TABLE 5 (ABOVE): Utilization for rigs with a drilling capacity greater than 20,000 ft decreased drastically from 77% in 2019 to only 13% in 2020.

TABLE 6: INTERNATIONAL LAND RIG UTILIZATION RATES, 2007-2020

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Europe/FSU/Russia	97%	90%	78%	86%	80%	94%	75%	96%	96%	72%	73%	75%	74%	54%
Africa	86%	85%	70%	77%	83%	96%	83%	87%	75%	53%	55%	79%	84%	54%
Middle East	94%	94%	82%	90%	97%	100%	94%	100%	99%	75%	77%	84%	85%	80%
Asia/China	95%	96%	93%	96%	96%	96%	96%	86%	67%	77%	79%	78%	76%	75%
Latin America	90%	90%	81%	74%	93%	88%	80%	84%	67%	41%	42%	72%	73%	18%
Overall	94%	92%	84%	88%	90%	95%	85%	91%	81%	70%	71%	77%	88%	62%

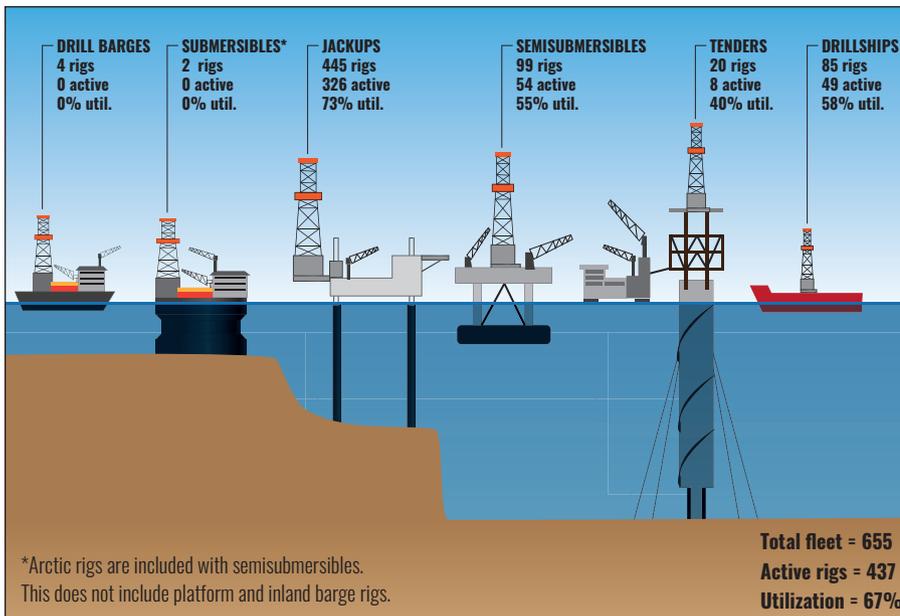


TABLE 6 (ABOVE): Utilization in Latin America has taken a drastic hit, dropping to 18% utilization in this year’s census. In fact, it’s believed that utilization reached almost zero in Venezuela. Another notable area is Ukraine, which was included for the first time in the 2019 census with almost 90 active rigs; the rig count there then dropped into the 30s and has remained there. **FIGURE 6 (LEFT):** The jackup fleet has the highest utilization rate of all offshore rig categories, coming in at 73%. The drillship segment had the steepest decline compared with last year’s census, going from 71% in 2019 to 58% in 2020.

GLOBAL OFFSHORE MOBILE ACTIVITY

Entering 2020, offshore was looking much better and was expected to continue improving since it had hit bottom in 2017. However, COVID-19 has completely changed that. There were 437 active mobile offshore rigs globally in the 2020 census period, a decrease of 7% from the 2019 census. Over the same period, overall utilization fell by 2% to 67%. Jackups had the highest utilization rate, with 73%, while drillships and semisubmersibles recorded 58% and 55%, respectively. The drillship segment was hit the hardest, dropping from 71% utilization in 2019.

With most operators slashing CAPEX budgets by 20-30% for 2020, there is significant downward pressure on dayrates across all segments. Many rigs have been put on standby for up to a year, either with a significantly reduced rate or no dayrate at all.

The combination of low utilization and reduced dayrates – at a time when many offshore drillers have debt maturities arriving – has led several offshore drilling contractors to file for Chapter 11 bankruptcy in order to restructure their debts. More offshore drilling contractors are expected to follow this path. This will lead to an uptick in scrapping as the contractors will take the opportunity to get rigs without any prospects of working off

rigs). The other segments all had between 10% and 12% utilization rates.

CANADIAN DRILLING ACTIVITY

Simply put, the Canadian market is dismal. There were only 29 active rigs in Canada during the census period, a staggering 82% decrease from the previous census. It is also 68% lower than the previous low point seen in 2016. The utilization rate for the Canadian fleet was a mere 7%. That is 80% lower than 2019 and less than half of the previous low seen in 2016, when utilization was 15%.

Eight of the rigs in the Canadian fleet were offshore rigs, of which only five were active – one jackup, two platform rigs and two semisubmersible rigs.

INTERNATIONAL LAND RIG UTILIZATION

Since the recent low in drilling experienced in 2016, the international industry had been steadily recovering each year to a much-improved state by the end of 2019. However, in the first half of 2020, this has unraveled, leaving the international fleet at an estimated

1,954 active units and a utilization rate of 62%. This effectively erases the recovery seen since 2016.

Latin America, which has seen steady activity but not the uptick toward 2019 seen elsewhere, has seen a brutal fall to a utilization rate of only 18% during the 2020 census period. Active rig count fell hard in Argentina and Colombia and reached almost zero in Venezuela.

Most of Europe saw active rig counts comparable with 2019. However, Ukraine, which had its first-ever inclusion in the census last year with almost 90 active rigs, dropped into the 30s at the end of 2019 and has remained there.

On the whole, countries in the Middle East have held steady on the count of active rigs in recent years. However, a distinct drop in rig count in the region could be seen starting in April that may have coincided with OPEC+ production reduction agreements. During the census period, utilization dropped to 80% in the region.

FIGURE 7 (TOP): In the offshore fleet, 437 of the 655 available rigs worked during the census period. This translates into a utilization rate of 67%, which is 2% lower than what was recorded in the 2019 census.

FIGURE 8 (BOTTOM): The number of individual rig owners holding available rigs dropped from 236 in 2019 to 188 in 2020. This results from consolidations and bankruptcies among US land rig owners due to the challenging market.

their books before they restructure. It is likely that even some sixth-generation rigs will be scrapped going forward.

US INDUSTRY TRENDS

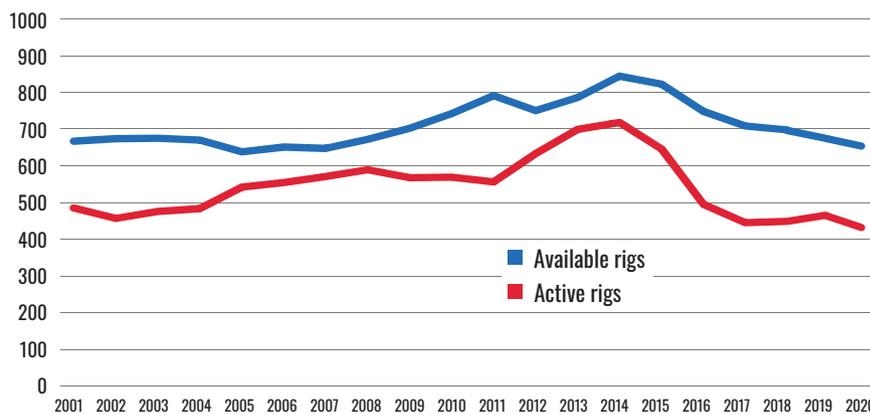
The number of individual rig owners holding available rigs is quantified annually. For 2020, the number of rig owners is 188, a sharp drop from the 236 identified in the 2019 census. This comes from a combination of rig owner consolidation and bankruptcies. The number of owners is 42% lower in 2020 compared with the peak number of owners seen in 2011. About 3% of the rigs in the US were owned by operators, with the rest being owned by drilling contractors. Changes in contracting scenarios are taking place in the region. While straight dayrate is still most prevalent, although at reduced rates, there is a shift to performance-based or index-linked contracts.

US FORECAST FOR NEXT YEAR

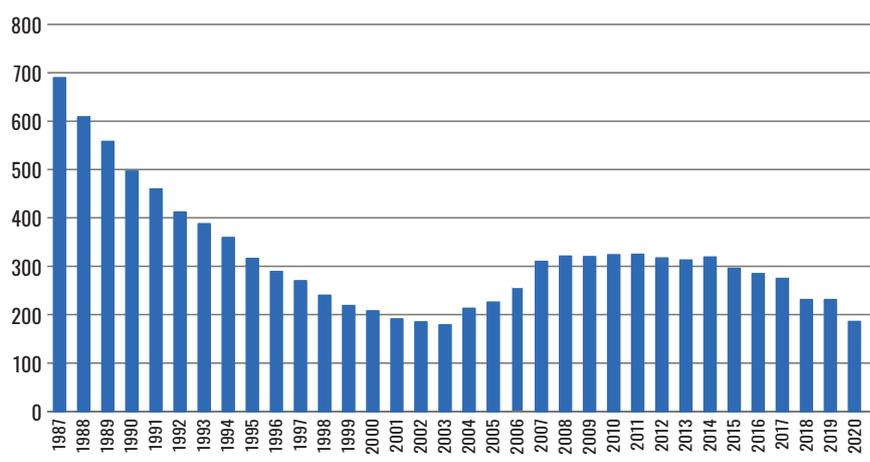
The famous Danish proverb says, “It is difficult to make predictions, especially about the future,” and forecasting amid an unprecedented global pandemic seem like a precarious effort. Nonetheless, it’s believed that the bottom of rig activity will be reached around Q3 2020. After that, there should be either stable activity or slow growth in 2021. No substantial growth is expected before 2022, as recovery in rig count will lag recovery in oil demand due to easy barrels coming out of storage and relaxation of production cuts to fill the gap before more difficult barrels and new wells are needed.

US land will remain depressed. The oversupply caused by the massive drop in demand, combined with a large number of drilled but uncompleted wells (DUCs) that can be brought online quickly, is likely to keep drilling activity to a minimum for another 12 to 18 months. The Permian Basin will be the first to see any increase in activity. While well activity may be slow, it would not

Global Offshore Mobile Fleet, Available and Active Rigs



Number of rig owners in U.S.



be surprising to see activity around mergers and acquisitions increase amongst the operators as they all look to refine their portfolios.

It is expected that high-spec land rigs will be the first to return as the rig count recovers. There is a high likelihood that older and/or under-spec rigs will never return. The same principal applies offshore, but perhaps even more so. It will not just be old rigs that face attrition.

On the offshore side, things were starting to look better for rigs working in the Gulf of Mexico in the 2019 census. Dayrates and utilization were up, and it seemed like this trend was going to continue into the 2020 census. Unfortunately, that was all turned upside down due to the negative effects already discussed. The region has already experienced some contract cancellations, and there are very few new contracts being awarded at the moment, a trend which will continue into the first half of 2021. This means that the focus for rig owners will be to get new work for the rigs that are rolling off contracts. One bright

spot in the region could be the handful of 20k projects in the Gulf of Mexico over the next several years, requiring higher-capacity hookload and pressure control capabilities. **pc**

IHS Markit and Enverus are the primary sources used for the global offshore and North America rig fleets. Information for the international land fleet was found using both Baker Hughes data and information collected and analyzed by NOV personnel.

The authors would like to recognize Hasmik Belich for her contribution to this year’s rig census and special thanks are given to Enverus for her time and effort.



SCAN ME to download a PDF of the 2020 NOV Rig Census article.
bit.ly/3kBhzEC

NATIONAL OILWELL VARCO RIG CENSUS

Year	Available	Unit Change	% Change	Active	Util. Rate	Idle	Driller Owned	Operator Owned	DEPTH RATING, FT.			
									Over 20,000	16,000 - 19,999	13,000 - 15,999	10,000 - 12,999
1955	3206	-	-	2654	83%	552	2806	400		104	445	613
1956	3277	71	2%	2836	87%	441	2911	366		110	453	562
1957	3076	-201	-6%	2519	82%	557	2796	280		111	425	553
1958	2971	-105	-3%	1909	64%	1062	2735	236		141	405	487
1959	3057	86	3%	2476	81%	581	2848	209		184	424	520
1960	3077	20	1%	2150	70%	927	2874	203		210	378	477
1961	2774	-303	-10%	2064	74%	710	2606	168		193	356	399
1962	2555	-219	-8%	1835	72%	720	2406	149		218	307	471
1963	2781	226	9%	2002	72%	779	2672	109		272	298	479
1964	2752	-29	-1%	2048	74%	704	2644	108		305	251	463
1965	2614	-138	-5%	1934	74%	680	2531	83		322	242	449
1966	2524	-90	-3%	1714	68%	810	2472	52		350	206	461
1967	2408	-116	-5%	1573	65%	835	2359	49		375	199	435
1968	2111	-297	-12%	1508	71%	603	2067	44		372	185	381
1969	2060	-51	-2%	1649	80%	411	2033	27		366	188	352
1970	1898	-162	-8%	1331	70%	567	1869	29		343	219	322
1971	1859	-39	-2%	1308	70%	551	1832	27		361	198	329
1972	1768	-91	-5%	1381	78%	387	1741	27		397	171	301
1973	1767	-1	0%	1473	83%	294	1739	28		413	164	318
1974	1894	127	7%	1769	93%	125	1881	13		425	214	339
1975	2028	134	7%	1877	93%	151	2014	14		448	225	380
1976	2204	176	9%	1979	90%	225	2180	24		498	239	366
1977	2482	278	13%	2399	97%	83	2451	31		577	274	461
1978	2851	369	15%	2785	98%	66	2818	33		693	313	565
1979	3182	331	12%	2874	90%	308	3144	38		872	350	631
1980	3672	490	15%	3542	96%	130	3626	46		1059	419	704
1981	4803	1131	31%	4703	98%	100	4762	41		1405	595	950
1982	5644	841	18%	3225	57%	2419	5606	38		1717	717	1104
1983	5273	-371	-7%	2539	48%	2734	5241	32		1639	662	993
1984	4580	-693	-13%	3090	67%	1490	4553	27		1408	591	933
1985	4409	-171	-4%	2625	60%	1784	4386	23		1332	570	894
1986	3993	-416	-9%	1052	26%	2941	3961	32		1220	496	789
1987	3331	-662	-17%	1388	42%	1943	3299	32		991	427	637
1988	2752	-579	-17%	1532	56%	1220	2716	36		771	365	529
1989	2542	-210	-8%	1444	57%	1098	2508	34		704	329	515
1990	2320	-222	-9%	1677	72%	643	2294	26	399	221	313	488
1991	2251	-69	-3%	1485	66%	766	2209	42	380	210	304	491
1992	1996	-255	-11%	1192	60%	804	1956	40	315	175	267	441
1993	1853	-143	-7%	1279	69%	574	1806	47	303	152	240	420
1994	1841	-12	-1%	1221	66%	620	1789	52	326	147	245	411
1995	1729	-112	-6%	1232	71%	497	1680	49	317	148	239	393
1996	1649	-80	-5%	1263	77%	386	1597	52	311	139	221	384
1997	1665	16	1%	1447	87%	218	1606	59	339	137	230	387
1998	1705	40	2%	1305	77%	400	1640	65	376	142	238	391
1999	1644	-61	-4%	860	52%	784	1599	45	375	134	232	368
2000	1636	-8	0%	1215	74%	421	1557	79	392	134	231	355
2001	1722	86	5%	1593	93%	129	1643	79	424	161	254	373
2002	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2003	1719	-3	0.0%	1334	78%	385	1648	71	390	205	274	368
2004	1988	269	16%	1674	84%	314	1896	92	424	230	295	473
2005	2026	38	2%	1920	95%	106	1962	64	375	251	311	472
2006	2298	272	13%	2200	96%	98	2191	107	394	287	384	562
2007	2817	519	23%	2402	85%	415	2511	306	453	347	508	658
2008	3076	259	9%	2541	83%	535	2698	378	471	378	605	741
2009	3169	93	3%	1264	40%	1905	2729	440	478	449	670	754
2010	3153	-16	-1%	2024	64%	1129	2702	451	517	472	662	721
2011	3081	-72	-2%	2059	67%	1022	2626	455	498	523	646	667
2012	3006	-75	-2%	2248	75%	758	2567	439	514	589	606	616
2013	3055	49	2%	2055	67%	1000	2625	430	706	561	551	600
2014	3254	199	7%	2269	70%	985	2782	472	782	645	567	599
2015	3156	-883	-3%	1139	36%	2017	2706	299	884	589	562	544
2016	2882	-274	-9%	577	20%	2305	2448	294	873	552	509	449
2017	2778	-104	-4%	1150	41%	1628	2441	323	883	523	484	409
2018	1952	-826	-30%	1273	65%	679	1680	229	769	359	264	196
2019	1960	8	0.4%	1187	61%	646	1735	225	832	264	174	98
2020	1939	-21	-1.1%	440	23%	1499	1878	51	850	387	226	129
AVG.	2669	-32	0	1857	71%	812	2528	136	558	317	363	510

US Rig Census historical data, 1955-2020. Note: The data for 1953, 1954 and 2002 are not available.

6,000 - 9,999	3,000 - 5,999	POWER SOURCE				RIG TYPE						
		SCR/ Elec.	Mechanical Diesel	Gas	Steam	Land	Inland Barge	Floating	Offshore Platform	Bottom Supported	Offshore Stationary	Subtotal Offshore
1237	807	30			285	2996	162	10		38	38	210
1256	896	34			247	3025	175	14		63	63	252
1075	912	52			195	2793	184	32		67	67	283
1067	871	49			158	2715	185	37		34	34	256
996	933	54			113	2811	190	34		22	22	246
1033	979	73	1039	1864	101	2837	178	39		23	23	240
937	889	66	1092	1549	67	2535	173	28		38	38	239
823	736	63	913	1525	54	2300	178	41		36	36	255
964	768	106	1027	1600	48	2514	179	50		38	38	267
1029	704	113	1040	1577	22	2479	162	50		61	61	273
936	665	138	1051	1404	21	2343	144	67		60	60	271
863	644	164	964	1376	20	2259	128	58		79	79	265
776	623	206	955	1239	8	2114	121	72		101	101	294
680	493	189	882	1037	3	1825	114	77		95	95	286
626	528	177	952	928	3	1827	98	50		85	85	233
580	434	154	895	847	2	1662	106	55		75	75	236
535	436	170	937	750	2	1592	124	62		81	81	267
490	409	176	955	637	0	1551	77	60		80	80	217
517	355	164	1007	596	0	1570	71	59		67	67	197
529	397	159	1200	535	0	1715	66	54		59	59	179
579	396	164	1339	525	0	1839	74	58		57	57	189
633	468	192	1535	476	1	1964	76	81		83	83	240
628	542	217	1943	321	1	2186	77	120		99	99	296
723	557	283	2309	259	0	2524	91	123		113	113	327
783	546	420	2521	241	0	2802	109	144		127	127	380
885	605	490	3023	159	0	3255	115	34	149	119	268	417
1080	773	656	4000	146	1	4316	161	32	155	139	294	487
1285	821	896	4647	100	1	5139	157	25	167	156	323	505
1233	746	851	4344	77	1	4832	128	31	129	153	282	441
1077	571	771	3747	61	1	4102	131	51	123	173	296	478
1084	529	748	3621	40	0	3940	121	58	107	183	290	469
971	517	815	3139	39	0	3573	90	70	89	171	260	420
841	435	681	2626	24	0	2956	91	53	77	154	231	375
751	336	561	2167	24	0	2429	63	48	62	150	212	323
700	294	498	2025	19	0	2249	63	40	60	130	190	293
623	276	408	1891	21	0	2061	54	30	46	129	175	259
603	263	438	1798	15	0	2006	51	24	48	122	170	245
553	245	395	1589	12	0	1809	47	20	41	79	120	187
513	225	380	1460	13	0	1660	46	19	36	92	128	193
499	213	418	1402	21	0	1613	45	21	39	123	162	228
453	179	414	1305	10	0	1500	45	19	43	122	165	229
435	159	408	1234	7	0	1425	46	22	39	117	156	224
421	151	456		1209		1428	44	28	42	123	165	237
412	146	497		1208		1449	47	35	45	129	174	256
395	140	499		1145		1384	46	37	45	132	177	260
381	143	520		1116		1370	47	33	42	144	186	266
371	139	582		1140		1452	38	37	43	152	195	270
n/a	n/a	n/a		n/a		n/a	n/a	n/a	n/a	n/a	n/a	n/a
359	123	592		1127		1488	43	36	34	118	152	231
435	131	627		1361		1736	51	45	41	115	156	252
474	143	603		1423		1813	48	37	31	97	128	213
521	150	826		1472		2100	47	42	28	81	109	198
609	242	1104		1713		2598	55	43	38	83	121	219
621	260	1170		1906		2871	52	41	39	73	112	205
577	241	1211		1958		2971	51	43	39	65	104	198
555	226	1316		1837		2938	55	41	34	85	119	215
552	195	1386		1695		2885	50	38	31	77	108	196
496	185	1499		1507		2828	37	41	35	65	100	178
469	168	1601		1454		2877	35	47	38	58	96	178
480	181	1814		1440		3062	45	57	43	47	90	192
295	116	1646		1163		3005	21	50	70	22	n/a	163
254	108	1591		971		2742	21	42	70	22	n/a	155
227	92	1580		898		2623	22	33	66	20	n/a	141
140	64	1471		345		1816	22	31	66	17	n/a	136
128	99	1183		509		1769	22	26	63	17	n/a	128
164	63	1403		416		1819	18	26	60	16	n/a	120
665	410	594	1667	538	32	2410	86	46	64	102	130	258

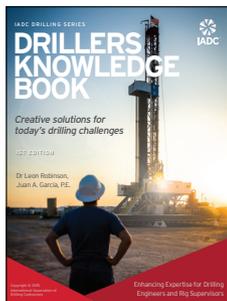
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