# Lenovo Global Technology

## ThinkSystem SR630 (2.30 GHz, Intel Xeon Gold 5218B)

| SPECrate2017_fp_base = | 181 |
| SPECrate2017_fp_peak = | Not Run |

| Test Sponsor: | Lenovo Global Technology |
| Tested by: | Lenovo Global Technology |

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CPU Name:</strong></td>
<td>Intel Xeon Gold 5218B</td>
</tr>
<tr>
<td><strong>Max MHz.:</strong></td>
<td>3900</td>
</tr>
<tr>
<td><strong>Nominal:</strong></td>
<td>2300</td>
</tr>
<tr>
<td><strong>Enabled:</strong></td>
<td>32 cores, 2 chips, 2 threads/core</td>
</tr>
<tr>
<td><strong>Orderable:</strong></td>
<td>1.2 chips</td>
</tr>
<tr>
<td><strong>Cache L1:</strong></td>
<td>32 KB I + 32 KB D on chip per core</td>
</tr>
<tr>
<td><strong>L2:</strong></td>
<td>1 MB I+D on chip per core</td>
</tr>
<tr>
<td><strong>L3:</strong></td>
<td>22 MB I+D on chip per core</td>
</tr>
<tr>
<td><strong>Memory:</strong></td>
<td>384 GB (24 x 16 GB 2Rx8 PC4-2933Y-R, running at 2666)</td>
</tr>
<tr>
<td><strong>Storage:</strong></td>
<td>1 x 800 GB SATA SSD</td>
</tr>
<tr>
<td><strong>Other:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>OS:</strong></td>
<td>Red Hat Enterprise Linux Server release 7.6 (Maipo)</td>
</tr>
<tr>
<td><strong>Compiler:</strong></td>
<td>C/C++: Version 19.0.0.117 of Intel C/C++</td>
</tr>
<tr>
<td><strong>Compiler for Linux:</strong></td>
<td>Compiler for Linux;</td>
</tr>
<tr>
<td><strong>Fortran:</strong></td>
<td>Fortran: Version 19.0.0.117 of Intel Fortran</td>
</tr>
<tr>
<td><strong>Compiler for Linux:</strong></td>
<td>Compiler for Linux</td>
</tr>
<tr>
<td><strong>Parallel:</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Firmware:</strong></td>
<td>Lenovo BIOS Version IVE135P 2.10 released Feb-2019</td>
</tr>
<tr>
<td><strong>File System:</strong></td>
<td>xfs</td>
</tr>
<tr>
<td><strong>System State:</strong></td>
<td>Run level 3 (multi-user)</td>
</tr>
<tr>
<td><strong>Base Pointers:</strong></td>
<td>64-bit</td>
</tr>
<tr>
<td><strong>Peak Pointers:</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>Other:</strong></td>
<td>None</td>
</tr>
</tbody>
</table>

### SPECrate2017_fp_base = 181

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>64</td>
<td>151</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>64</td>
<td>130</td>
</tr>
<tr>
<td>508.namd_r</td>
<td>64</td>
<td>107</td>
</tr>
<tr>
<td>510.parest_r</td>
<td>64</td>
<td>205</td>
</tr>
<tr>
<td>511.povray_r</td>
<td>64</td>
<td>105</td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>64</td>
<td>198</td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>64</td>
<td>192</td>
</tr>
<tr>
<td>526.blender_r</td>
<td>64</td>
<td>189</td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>64</td>
<td>400</td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>64</td>
<td>289</td>
</tr>
<tr>
<td>544.nab_r</td>
<td>64</td>
<td>149</td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>64</td>
<td>149</td>
</tr>
<tr>
<td>554.roms_r</td>
<td>64</td>
<td>84.9</td>
</tr>
</tbody>
</table>

---

| Test Date: | May-2019 |
| Hardware Availability: | Apr-2019 |
| Software Availability: | Oct-2018 |

---

**Lenovo Global Technology**

**ThinkSystem SR630**

(2.30 GHz, Intel Xeon Gold 5218B)
Lenovo Global Technology

ThinkSystem SR630
(2.30 GHz, Intel Xeon Gold 5218B)

SPECrate2017_fp_base = 181
SPECrate2017_fp_peak = Not Run

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>503.bwaves_r</td>
<td>64</td>
<td>1378</td>
<td>466</td>
<td>1377</td>
<td>466</td>
<td>1377</td>
<td>466</td>
</tr>
<tr>
<td>507.cactuBSSN_r</td>
<td>64</td>
<td>538</td>
<td>151</td>
<td>538</td>
<td>151</td>
<td>538</td>
<td>151</td>
</tr>
<tr>
<td>508.namd_r</td>
<td>64</td>
<td>465</td>
<td>131</td>
<td>467</td>
<td>130</td>
<td>466</td>
<td>130</td>
</tr>
<tr>
<td>510.parest_r</td>
<td>64</td>
<td>1560</td>
<td>107</td>
<td>1556</td>
<td>108</td>
<td>1558</td>
<td>107</td>
</tr>
<tr>
<td>511.povray_r</td>
<td>64</td>
<td>735</td>
<td>203</td>
<td>729</td>
<td>205</td>
<td>728</td>
<td>205</td>
</tr>
<tr>
<td>519.lbm_r</td>
<td>64</td>
<td>642</td>
<td>105</td>
<td>642</td>
<td>105</td>
<td>642</td>
<td>105</td>
</tr>
<tr>
<td>521.wrf_r</td>
<td>64</td>
<td>725</td>
<td>198</td>
<td>717</td>
<td>200</td>
<td>737</td>
<td>194</td>
</tr>
<tr>
<td>526.blender_r</td>
<td>64</td>
<td>507</td>
<td>192</td>
<td>507</td>
<td>192</td>
<td>507</td>
<td>192</td>
</tr>
<tr>
<td>527.cam4_r</td>
<td>64</td>
<td>593</td>
<td>189</td>
<td>593</td>
<td>189</td>
<td>584</td>
<td>192</td>
</tr>
<tr>
<td>538.imagick_r</td>
<td>64</td>
<td>414</td>
<td>385</td>
<td>398</td>
<td>400</td>
<td>383</td>
<td>415</td>
</tr>
<tr>
<td>544.nab_r</td>
<td>64</td>
<td>373</td>
<td>289</td>
<td>371</td>
<td>290</td>
<td>372</td>
<td>289</td>
</tr>
<tr>
<td>549.fotonik3d_r</td>
<td>64</td>
<td>1676</td>
<td>149</td>
<td>1675</td>
<td>149</td>
<td>1676</td>
<td>149</td>
</tr>
<tr>
<td>554.roms_r</td>
<td>64</td>
<td>1202</td>
<td>84.6</td>
<td>1197</td>
<td>85.0</td>
<td>1197</td>
<td>84.9</td>
</tr>
</tbody>
</table>

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

General Notes

Environment variables set by runcpu before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2017-1.0.5-ic19/lib/intel64"

Binaries compiled on a system with 1x Intel Core i9-799X CPU + 32GB RAM memory using Redhat Enterprise Linux 7.5
Transparent Huge Pages enabled by default
Prior to runcpu invocation
Filesystem page cache synced and cleared with:
  sync; echo 3> /proc/sys/vm/drop_caches
runcpu command invoked through numactl i.e.:
  numactl --interleave=all runcpu <etc>
NA: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown) is mitigated in the system as tested and documented.

(Continued on next page)
General Notes (Continued)

Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1) is mitigated in the system as tested and documented.  
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2) is mitigated in the system as tested and documented. 
Yes: The test sponsor attests, as of date of publication, that CVE-2018-3640 (Spectre variant 3a) is mitigated in the system as tested and documented. 
Yes: The test sponsor attests, as of date of publication, that CVE-2018-3639 (Spectre variant 4) is mitigated in the system as tested and documented. 

Platform Notes

BIOS configuration: 
Choose Operating Mode set to Maximum Performance 
Choose Operating Mode set to Custom Mode 
C-states set to Legacy 
SNC set to Enable 
DCU Streamer Prefetcher set to Disable 
Trusted Execution Technology set to Enable 
Stale AtoS set to Enable 
LLC dead line alloc set to Disable 
Patrol Scrub set to Disable 
Sysinfo program /home/cpu2017-1.0.5-ic19/bin/sysinfo 
Rev: r5974 of 2018-05-19 9bcde8f2999c33d61f64985e45859ea9 
runtime on localhost.localdomain Sat May 25 12:19:38 2019

SUT (System Under Test) info as seen by some common utilities. 
For more information on this section, see https://www.spec.org/cpu2017/Docs/config.html#sysinfo

From /proc/cpuinfo
model name : Intel(R) Xeon(R) Gold 5218 CPU @ 2.30GHz 
  2 "physical id"s (chips) 
  64 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)
cpu cores: 16 
siblings: 32
physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

From lscpu:
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Byte Order: Little Endian
CPU(s): 64
On-line CPU(s) list: 0-63

(Continued on next page)
**Lenovo Global Technology**

ThinkSystem SR630  
(2.30 GHz, Intel Xeon Gold 5218B)

**SPECrate2017_fp_base** = 181  
**SPECrate2017_fp_peak** = Not Run

---

**Platform Notes (Continued)**

- Thread(s) per core: 2
- Core(s) per socket: 16
- Socket(s): 4
- NUMA node(s): 4
- Vendor ID: GenuineIntel
- CPU family: 6
- Model: 85
- Model name: Intel(R) Xeon(R) Gold 5218 CPU @ 2.30GHz
- Stepping: 6
- CPU MHz: 2300.000
- BogoMIPS: 4600.00
- Virtualization: VT-x
- L1d cache: 32K
- L1i cache: 32K
- L2 cache: 1024K
- L3 cache: 22528K
- NUMA node0 CPU(s): 0-3,8-11,32-35,40-43
- NUMA node1 CPU(s): 4-7,12-15,36-39,44-47
- NUMA node2 CPU(s): 16-19,24-27,48-51,56-59
- NUMA node3 CPU(s): 20-23,28-31,52-55,60-63
- Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpl mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts rep_good ncpu nonstop_tsc aperfmpref eagerfpu pni pclmulqdq dtes64 monitor ds_cpl vmx smx est tm2 ssse3 sdbg fma cx16 xtpr pdcm pcid dca sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abtm 3dnowprefetch cpb cat_13 cdp_13 intel_pt ssbd mba ibrs ibpb stibp ibrs_enhanced trp_shadow vnumi flexpriority ept vpid fsgsbase tsc_adjust bmi1 hle avx2 smep bmi2 erts invvpid rtm cqm mpx rdt_a avx512f avx512dq rdseed adx smap clflushopt clwb avx512cd avx512bw avx512vl xsaveopt xsavec xsaveopt xgetbv1 cqm_1ll cqm_occup_llc cqm_mbb_total cqm_mbb_local dtherm ida arat pln pts pku ospke avx512_vnni spec_ctrl intel_stibp flush_l1d arch_capabilities

/proc/cpuinfo cache data  
cache size : 22528 KB

From numactl --hardware  
WARNING: a numactl 'node' might or might not correspond to a physical chip.

available: 4 nodes (0-3)  
node 0 cpus: 0 1 2 3 8 9 10 11 32 33 34 35 40 41 42 43  
node 0 size: 97977 MB  
node 0 free: 95358 MB  
node 1 cpus: 4 5 6 7 12 13 14 15 36 37 38 39 44 45 46 47  
node 1 size: 98304 MB  
node 1 free: 95519 MB  
node 2 cpus: 16 17 18 19 24 25 26 27 48 49 50 51 56 57 58 59  
node 2 size: 98304 MB  
node 2 free: 95813 MB

(Continued on next page)
SPEC CPU2017 Floating Point Rate Result

Lenovo Global Technology
ThinkSystem SR630
(2.30 GHz, Intel Xeon Gold 5218B)

SPECrat2017_fp_base = 181
SPECrat2017_fp_peak = Not Run

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Test Date: May-2019
Tested by: Lenovo Global Technology
Hardware Availability: Apr-2019
Software Availability: Oct-2018

Platform Notes (Continued)

node 3 cpus: 20 21 22 23 28 29 30 31 52 53 54 55 60 61 62 63
node 3 size: 98304 MB
node 3 free: 95751 MB
node distances:
node 0 1 2 3
 0: 10 11 21 21
 1: 11 10 21 21
 2: 21 21 10 11
 3: 21 21 11 10

From /proc/meminfo
MemTotal: 395878952 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
os-release:
NAME="Red Hat Enterprise Linux Server"
VERSION="7.6 (Maipo)"
ID="rhel"
ID_LIKE="fedora"
VARIANT="Server"
VARIANT_ID="server"
VERSION_ID="7.6"
PRETTY_NAME="Red Hat Enterprise Linux Server 7.6 (Maipo)"
redhat-release: Red Hat Enterprise Linux Server release 7.6 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.6 (Maipo)

uname -a:
Linux localhost.localdomain 3.10.0-957.el7.x86_64 #1 SMP Thu Oct 4 20:48:51 UTC 2018
x86_64 x86_64 x86_64 GNU/Linux

Kernel self-reported vulnerability status:
CVE-2017-5754 (Meltdown): Not affected
CVE-2017-5753 (Spectre variant 1): Mitigation: Load fences, __user pointer sanitization
CVE-2017-5715 (Spectre variant 2): Mitigation: Enhanced IBRS

run-level 3 May 24 18:08

SPEC is set to: /home/cpu2017-1.0.5-ic19
Filesystem Type Size Used Avail Use% Mounted on
/dev/sdb2 xfs 689G 42G 647G 7% /home

Additional information from dmidecode follows. WARNING: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow

(Continued on next page)
Lenovo Global Technology
ThinkSystem SR630
(2.30 GHz, Intel Xeon Gold 5218B)

SPECrerate2017_fp_base = 181
SPECrerate2017_fp_peak = Not Run

CPU2017 License: 9017
Test Sponsor: Lenovo Global Technology
Tested by: Lenovo Global Technology

Platform Notes (Continued)
hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.
   BIOS Lenovo -[IVE135P-2.10]- 02/13/2019
   Memory: 24x Samsung M393A2K43CB2-CVF 16 GB 2 rank 2933, configured at 2666

Compiler Version Notes

==============================================================================
CC  519.lbm_r(base) 538.imagick_r(base) 544.nab_r(base)
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
   Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
==============================================================================
CXXC 508.namd_r(base) 510.parest_r(base)
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
   Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
==============================================================================
CC  511.povray_r(base) 526.blender_r(base)
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
   Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
   Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
==============================================================================
FC  507.cactuBSSN_r(base)
Intel(R) C++ Intel(R) 64 Compiler for applications running on Intel(R) 64,
   Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.
Intel(R) C Intel(R) 64 Compiler for applications running on Intel(R) 64,
   Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

(Continued on next page)
Lenovo Global Technology  
ThinkSystem SR630  
(2.30 GHz, Intel Xeon Gold 5218B)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>181</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_fp_peak</td>
<td>Not Run</td>
</tr>
</tbody>
</table>

CPU2017 License: 9017  
Test Sponsor: Lenovo Global Technology  
Tested by: Lenovo Global Technology  
Test Date: May-2019  
Hardware Availability: Apr-2019  
Software Availability: Oct-2018

Compiler Version Notes (Continued)

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

-----

FC 503.bwaves_r(base) 549.fotonik3d_r(base) 554.roms_r(base)

-----

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

-----

CC 521.wrf_r(base) 527.cam4_r(base)

-----

Intel(R) Fortran Intel(R) 64 Compiler for applications running on Intel(R) 64, Version 19.0.0.117 Build 20180804
Copyright (C) 1985-2018 Intel Corporation. All rights reserved.

-----

Base Compiler Invocation

C benchmarks:
icc -m64 -std=c11

C++ benchmarks:
icpc -m64

Fortran benchmarks:
ifort -m64

Benchmarks using both Fortran and C:
ifort -m64 icc -m64 -std=c11

Benchmarks using both C and C++:
icpc -m64 icc -m64 -std=c11

Benchmarks using Fortran, C, and C++:
icpc -m64 icc -m64 -std=c11 ifort -m64
**SPEC CPU2017 Floating Point Rate Result**

Lenovo Global Technology

ThinkSystem SR630
(2.30 GHz, Intel Xeon Gold 5218B)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>181</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECrate2017_fp_peak</td>
<td>Not Run</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 9017
**Test Sponsor:** Lenovo Global Technology
**Tested by:** Lenovo Global Technology
**Test Date:** May-2019
**Hardware Availability:** Apr-2019
**Software Availability:** Oct-2018

### Base Portability Flags

- 503.bwaves_r: -DSPEC_LP64
- 507.cactuBSSN_r: -DSPEC_LP64
- 508.namd_r: -DSPEC_LP64
- 510.parest_r: -DSPEC_LP64
- 511.povray_r: -DSPEC_LP64
- 519.lbm_r: -DSPEC_LP64
- 521.wrf_r: -DSPEC_LP64 -DSPEC_CASE_FLAG -convert big_endian
- 526.blender_r: -DSPEC_LP64 -DSPEC_LINUX -funsigned-char
- 527.cam4_r: -DSPEC_LP64 -DSPEC_CASE_FLAG
- 538.imagick_r: -DSPEC_LP64
- 544.nab_r: -DSPEC_LP64
- 549.fotonik3d_r: -DSPEC_LP64
- 554.roms_r: -DSPEC_LP64

### Base Optimization Flags

**C benchmarks:**
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3

**C++ benchmarks:**
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3

**Fortran benchmarks:**
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3 -auto -nostandard-realloc-lhs -align array32byte

**Benchmarks using both Fortran and C:**
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3 -auto -nostandard-realloc-lhs -align array32byte

**Benchmarks using both C and C++:**
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3

**Benchmarks using Fortran, C, and C++:**
-xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -ffinite-math-only -qopt-mem-layout-trans=3 -auto -nostandard-realloc-lhs -align array32byte
## SPEC CPU2017 Floating Point Rate Result

### Lenovo Global Technology
ThinkSystem SR630
(2.30 GHz, Intel Xeon Gold 5218B)

<table>
<thead>
<tr>
<th>SPECrate2017_fp_base</th>
<th>SPECrate2017_fp_peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>181</td>
<td>Not Run</td>
</tr>
</tbody>
</table>

**CPU2017 License:** 9017  
**Test Sponsor:** Lenovo Global Technology  
**Tested by:** Lenovo Global Technology

<table>
<thead>
<tr>
<th>Test Date:</th>
<th>May-2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware Availability:</td>
<td>Apr-2019</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>Oct-2018</td>
</tr>
</tbody>
</table>

The flags files that were used to format this result can be browsed at:

You can also download the XML flags sources by saving the following links:
- http://www.spec.org/cpu2017/flags/Lenovo-Platform-SPECcpu2017-Flags-V1.2-CLX-A.xml

SPEC is a registered trademark of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester. For other inquiries, please contact info@spec.org.

Tested with SPEC CPU2017 v1.0.5 on 2019-05-25 00:19:37-0400.  
Originally published on 2019-06-25.