## N388RA (CH47D) VMEP Flight Data Report 07/21/2022 13:32:48

Mode: Survey

Pilot: Comments:

#### **Aft Rotor Mechanical Condition Indicators**

CIs occurring on flight at 07/21/2022 13:32:48

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Aft SP AFD Bearing Energy	0.83		2.50	5.00		Aft swashplate bearing asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement.
Survey FPG100 Aft SP AFD High Frequency Energy	0.11		2.00	3.00		Aft swashplate bearing asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 Aft SP AFD High Frequency Energy #2	0.27		5.00	10.00		Aft swashplate bearing asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 Aft SP AMD Bearing Energy	0.04		2.00	3.00		Aft swashplate bearing amplitude demodulated (AMD) vibration energy from Survey FPG100 measurement.
Survey FPG100 Aft TB Lat AFD Bearing Energy	0.33		5.00	1000.00		Aft thrust bearing asynchrounous frequency domian (AFD) vibration energy measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 Aft TB Lat AFD High Frequency Energy	0.09		5.00	1000.00		Aft thrust bearing asynchrounous frequency domian (AFD) high frequency vibration energy measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 Aft TB Vrt AFD Bearing Energy	0.22		5.00	1000.00		Aft thrust bearing asynchrounous frequency domian (AFD) vibration energy measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 Aft TB Vrt AFD High Frequency Energy	0.09		5.00	1000.00		Aft thrust bearing high frequency asynchrounous frequency domian (AFD) vibration energy measured by vertical accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Aft Transmission Condition Indicators**

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 AXmsn Lat 106T LRing DA1	8.60		100.00	1000.00		Aft transmission 106T LRing gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 106T LRing FM4	2.84		0.00	0.00		Aft transmission 106T LRing gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 106T LRing SI	0.68		100.00	1000.00		Aft transmission 106T LRing gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 106T LRing SLF	0.13		4.00	1000.00		Aft transmission 106T LRing gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 106T			100.00	1000.00		Aft transmission 106T URing gear DA1 measured by lateral accelerometer from Survey
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
URing DA1	4.58					FPG100 measurement.
Survey FPG100 AXmsn Lat 106T URing FM4	2.88		0.00	0.00		Aft transmission 106T URing gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 106T URing SI	0.20		100.00	1000.00		Aft transmission 106T URing gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 106T URing SLF	0.12		4.00	1000.00		Aft transmission 106T URing gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 28T LSun DA1	6.09		100.00	1000.00		Aft transmission 28T LSun gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 28T LSun FM4	2.89		0.00	0.00		Aft transmission 28T LSun gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 28T LSun SI	0.18		100.00	1000.00		Aft transmission 28T LSun gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 28T LSun SLF	0.09		4.00	1000.00		Aft transmission 28T LSun gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 29T Input DA1	4.86		100.00	1000.00		Aft transmission 29T Input gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 29T Input FM4	3.43		0.00	0.00		Aft transmission 29 tooth input gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 29T Input SI	1.12		100.00	1000.00		Aft transmission 29T Input gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 29T Input SLF	0.62		4.00	1000.00		Aft transmission 29T Input gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 33T UPlanet DA1	3.45		100.00	1000.00		Aft transmission 33T UPlanet gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 33T UPlanet FM4	2.51		0.00	0.00		Aft transmission 33T UPlanet gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 33T UPlanet SI	0.09		100.00	1000.00		Aft transmission 33T UPlanet gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 33T UPlanet SLF	0.05		4.00	1000.00		Aft transmission 33T UPlanet gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 39T LPlanet DA1	6.31		100.00	1000.00		Aft transmission 39T LPlanet gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 39T LPlanet FM4	2.61		0.00	0.00		Aft transmission 39T LPlanet gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 39T LPlanet SI	0.19		100.00	1000.00		Aft transmission 39T LPlanet gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 39T LPlanet SLF	0.10		4.00	1000.00		Aft transmission 39T LPlanet gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
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CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 AXmsn Lat 40T USun DA1	6.51		100.00	1000.00		Aft transmission 40T USun gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 40T USun FM4	2.19		0.00	0.00		Aft transmission 40T USun gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 40T USun SI	0.14		100.00	1000.00		Aft transmission 40T USun gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 40T USun SLF	0.02		4.00	1000.00		Aft transmission 40T USun gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 51T Bevel DA1	4.22		100.00	1000.00		Aft transmission 51T Bevel geat DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 51T Bevel SI	0.37		100.00	1000.00		Aft transmission 51T Bevel geat SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat 51T Bevel SLF	0.09		4.00	1000.00		Aft transmission 51T Bevel geat SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat AFD Bearing Energy	27.38		100.00	1000.00		Aft transmission bearing asynchrounous frequency domian (AFD) vibration energy measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat AFD High Frequency Energy	17.50		100.00	1000.00		Aft transmission bearing asynchrounous frequency domian (AFD) vibration high frequency energy measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 24T Generator Drive DA1	5.18		100.00	1000.00		Aft transmission 24 tooth generator drive gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 24T Generator Drive FM4	2.70		0.00	0.00		Aft transmission 24 tooth generator drive gear FM4 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 24T Generator Drive SI	0.29		100.00	1000.00		Aft transmission 24 tooth generator drive gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 24T Generator Drive SLF	0.15		4.00	1000.00		Aft transmission 24 tooth generator drive gear sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 25T Generator Idler DA1	5.10		100.00	1000.00		Aft transmission 25 tooth generator idler gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 25T Generator Idler FM4	2.54		0.00	0.00		Aft transmission 25 tooth generator idler gear FM4 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 25T Generator Idler SI	0.39		100.00	1000.00		Aft transmission 25 tooth generator idler gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 25T Generator Idler SLF	0.20		4.00	1000.00		Aft transmission 25 tooth generator idler gear sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 27T Fan Drive DA1	5.03		100.00	1000.00		Aft transmission 27 tooth fan drive gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
						Aft transmission 27 tooth fan drive gear FM4
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 AXmsn Vrt 27T Fan Drive FM4	3.07		0.00	0.00		measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 27T Fan Drive SI	0.31		100.00	1000.00		Aft transmission 27 tooth fan drive gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 27T Fan Drive SLF	0.10		4.00	1000.00		Aft transmission 27 tooth fan drive gear sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 32T Fan Idler DA1	5.24		100.00	1000.00		Aft transmission 32 tooth fan idler gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 32T Fan Idler FM4	3.12		0.00	0.00		Aft transmission 32 tooth fan idler gear FM4 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 32T Fan Idler SI	0.25		100.00	1000.00		Aft transmission 32 tooth fan idler gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 32T Fan Idler SLF	0.08		4.00	1000.00		Aft transmission 32 tooth fan idler gear sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 36T Acc Idler/Acc Dr DA1	5.30		100.00	1000.00		Aft transmission 36 tooth accessory drive idler DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 36T Acc Idler/Acc Dr SI	0.26		100.00	1000.00		Aft transmission 36 tooth accessory drive idler SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 36T Acc Idler/Acc Dr SLF	0.15		4.00	1000.00		Aft transmission 36 tooth accessory drive idler sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 44T Aux Lube DA1	3.12		100.00	1000.00		Aft transmission 44 tooth auxiliary lube pump input DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 44T Aux Lube SI	0.22		100.00	1000.00		Aft transmission 44 tooth auxiliary lube pump input SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 44T Aux Lube SLF	0.15		4.00	1000.00		Aft transmission 44 tooth auxiliary lube pump input sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 51T Acc Drive DA1	5.30		100.00	1000.00		Aft transmission 51 tooth accessory drive gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 51T Acc Drive SI	0.50		100.00	1000.00		Aft transmission 51 tooth accessory drive gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 51T Acc Drive SLF	0.27		4.00	1000.00		Aft transmission 51 tooth accessory drive gear sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 52T Aux Lube DA1	3.23		100.00	1000.00		Aft transmission 52 tooth auxiliary lube pump drive gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 52T Aux Lube FM4	2.79		0.00	0.00		Aft transmission 52 tooth auxiliary lube pump drive gear FM4 measured by vertical accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 AXmsn Vrt 52T Aux Lube SI	0.15		100.00	1000.00		Aft transmission 52 tooth auxiliary lube pump drive gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 52T Aux Lube SLF	0.09		4.00	1000.00		Aft transmission 52 tooth auxiliary lube pump drive gear sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 53T Hyd/Lube Pump DA1	6.04		100.00	1000.00		Aft transmission 53 tooth hydraulic pump DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 53T Hyd/Lube Pump FM4	2.98		0.00	0.00		Aft transmission 53 tooth hydraulic pump FM4 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 53T Hyd/Lube Pump SI	0.24		100.00	1000.00		Aft transmission 53 tooth hydraulic pump SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt 53T Hyd/Lube Pump SLF	0.07		4.00	1000.00		Aft transmission 53 tooth hydraulic pump sideband level factor (SLF) measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt AFD Bearing Energy	22.27		100.00	1000.00		Aft transmission bearing asynchrounous frequency domian (AFD) vibration energy measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt AFD High Frequency Energy	21.97		100.00	1000.00		Aft transmission bearing asynchrounous frequency domian (AFD) vibration high frequency energy measured by vertical accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Aft Transmission Accessories Condition Indicators**

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 AXmsn Lat Aux Lube 1P	0.07		4.00	1000.00		Aft transmission auxiliary lube oil pump 1P vibration level measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat Generator 1P	0.06		2.00	1000.00		Aft transmission generator 1P vibration level measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Lat Hyd & Main Lube 1P	0.14		4.00	1000.00		Aft transmission hydraulic and main lube oil pump 1P vibration level measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt Aux Lube 1P	0.25		4.00	1000.00		Aft transmission auxiliary lube oil pump 1P vibration level measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt Generator 1P	0.22		2.00	1000.00		Aft transmission generator 1P vibration level measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 AXmsn Vrt Hyd & Main Lube 1P	0.16		4.00	1000.00		Aft transmission hydraulic and main lube oil pump 1P vibration level measured by vertical accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Aft Transmission Oil Cooler Fan Condition Indicators**

CIs occurring on flight at 07/21/2022 13:32:48

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Aft Fan Lat	0.22		0.63	0.70	0.84	Aft transmission oil cooler fan shaft 1P vibration level as measured by aft transmission oil cooler fan lateral accelerometer. Duplicates AVA-style 50 Hour vibration check.
Survey FPG100 Aft Fan Lat AFD Bearing Energy	13.36		100.00	1000.00		Aft transmission oil cooler bearing asynchrounous frequency domian (AFD) vibration energy measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 Aft Fan Vert	0.21		0.63	0.70	0.84	Aft transmission oil cooler fan shaft 1P vibration level as measured by aft transmission oil cooler fan vertical accelerometer. Duplicates AVA-style 50 Hour vibration check.
Survey FPG100 Aft Fan Vrt AFD Bearing Energy	12.67		100.00	1000.00		Aft transmission oil cooler bearing asynchrounous frequency domian (AFD) vibration energy measured by vertical accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

## Combining Transmission Condition Indicators CIs occurring on flight at 07/21/2022 13:32:48

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CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 CBox XS #1 22T Fan Pinion Gear DA1	6.97		100.00	1000.00		Combining transmission 22 tooth fan drive gear DA1 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 22T Fan Pinion Gear FM4	2.34		0.00	0.00		Combining transmission 22 tooth fan drive gear FM4 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 22T Fan Pinion Gear SI	0.39		100.00	1000.00		Combining transmission 22 tooth fan drive gear SI measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 22T Fan Pinion Gear SLF	0.15		4.00	1000.00		Combining transmission 22 tooth fan drive gear sideband level factor (SLF) measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 31T Fan Drive Gear DA1	19.11		100.00	1000.00		Combining transmission 31 tooth fan input gear DA1 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 31T Fan Drive Gear SI	1.04		100.00	1000.00		Combining transmission 31 tooth fan input gear SI measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 31T Fan Drive Gear SLF	0.07		4.00	1000.00		Combining transmission 31 tooth fan input gear sideband level factor (SLF) measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 31T Input Gear DA1	17.18		100.00	1000.00		Combining transmission 31 tooth input gear DA1 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 31T Input Gear FM4	3.39		0.00	0.00		Combining transmission 31 tooth input gear FM4 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 31T Input Gear SI	2.25		100.00	1000.00		Combining transmission 31 tooth input gear SI measured by input #1 accelerometer from Survey FPG100 measurement.
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CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 CBox XS #1 31T Input Gear SLF	0.48		4.00	1000.00		Combining transmission 31 tooth input gear sideband level factor (SLF) measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 33T Quill Gear DA1	19.11		100.00	1000.00		Combining transmission 33 tooth quill gear DA1 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 33T Quill Gear SI	1.64		100.00	1000.00		Combining transmission 33 tooth quill gear SI measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 33T Quill Gear SLF	0.09		4.00	1000.00		Combining transmission 33 tooth quill gear sideband level factor (SLF) measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 38T Lube Pump Gear DA1	3.99		100.00	1000.00		Combining transmission 38 tooth lube pump drive gear DA1 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 38T Lube Pump Gear FM4	2.99		0.00	0.00		Combining transmission 38 tooth lube pump drive gear FM4 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 38T Lube Pump Gear SI	0.35		100.00	1000.00		Combining transmission 38 tooth lube pump drive gear SI measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 38T Lube Pump Gear SLF	0.08		4.00	1000.00		Combining transmission 38 tooth lube pump drive gear sideband level factor (SLF) measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 55T Collector Gear DA1	19.11		100.00	1000.00		Combining transmission 55 tooth collector gear DA1 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 55T Collector Gear SI	1.66		100.00	1000.00		Combining transmission 55 tooth collector gear FM4 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 55T Collector Gear SLF	0.38		4.00	1000.00		Combining transmission 55 tooth collector gear SI measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 69T Lube Idler Gear DA1	16.51		100.00	1000.00		Combining transmission 69 tooth lube idler gear DA1 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 69T Lube Idler Gear FM4	2.14		0.00	0.00		Combining transmission 69 tooth lube idler gear FM4 measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 69T Lube Idler Gear SI	0.14		100.00	1000.00		Combining transmission 69 tooth lube idler gear SI measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 69T Lube Idler Gear SLF	0.02		4.00	1000.00		Combining transmission 69 tooth lube idler gear sideband level factor (SLF) measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 AFD Bearing Energy	5.81		25.00	1000.00		Combining transmission bearing asynchrounous frequency domian (AFD) vibration energy measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #1 AFD High Frequency Energy	25.00		100.00	1000.00		Combining transmission bearing asynchrounous frequency domian (AFD) high frequency vibration energy measured by input #1 accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 CBox XS #2 22T Fan Pinion Gear DA1	3.34		100.00	1000.00		Combining transmission 22 tooth fan drive gear DA1 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 22T Fan Pinion Gear FM4	3.04		0.00	0.00		Combining transmission 22 tooth fan drive gear FM4 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 22T Fan Pinion Gear SI	0.35		100.00	1000.00		Combining transmission 22 tooth fan drive gear SI measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 22T Fan Pinion Gear SLF	0.35		4.00	1000.00		Combining transmission 22 tooth fan drive gear sideband level factor (SLF) measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 31T Fan Drive Gear DA1	13.47		100.00	1000.00		Combining transmission 31 tooth fan input gear DA1 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 31T Fan Drive Gear SI	0.74		100.00	1000.00		Combining transmission 31 tooth fan input gear SI measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 31T Fan Drive Gear SLF	0.12		4.00	1000.00		Combining transmission 31 tooth fan input gear sideband level factor (SLF) measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 31T Input Gear DA1	12.88		100.00	1000.00		Combining transmission 31 tooth input gear DA1 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 31T Input Gear FM4	3.36		0.00	0.00		Combining transmission 31 tooth input gear FM4 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 31T Input Gear SI	2.10		100.00	1000.00		Combining transmission 31 tooth input gear SI measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 31T Input Gear SLF	0.59		4.00	1000.00		Combining transmission 31 tooth input gear sideband level factor (SLF) measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 33T Quill Gear DA1	13.47		100.00	1000.00		Combining transmission 33 tooth quill gear DA1 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 33T Quill Gear SI	0.62		100.00	1000.00		Combining transmission 33 tooth quill gear SI measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 33T Quill Gear SLF	0.11		4.00	1000.00		Combining transmission 33 tooth quill gear sideband level factor (SLF) measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 38T Lube Pump Gear DA1	3.54		100.00	1000.00		Combining transmission 38 tooth lube pump drive gear DA1 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 38T Lube Pump Gear FM4	3.18		0.00	0.00		Combining transmission 38 tooth lube pump drive gear FM4 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 38T Lube Pump Gear SI	0.17		100.00	1000.00		Combining transmission 38 tooth lube pump drive gear SI measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 38T Lube	0.08		4.00	1000.00		Combining transmission 38 tooth lube pump drive gear sideband level factor (SLF) measured by input #2 accelerometer from Survey FPG100
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Pump Gear SLF						measurement.
Survey FPG100 CBox XS #2 55T Collector Gear DA1	13.47		100.00	1000.00		Combining transmission 55 tooth collector gear DA1 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 55T Collector Gear SI	0.94		100.00	1000.00		Combining transmission 55 tooth collector gear SI measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 55T Collector Gear SLF	0.28		4.00	1000.00		Combining transmission 55 tooth collector gear sideband level factor (SLF) measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 69T Lube Idler Gear DA1	11.93		100.00	1000.00		Combining transmission 69 tooth lube idler gear DA1 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 69T Lube Idler Gear FM4	1.89		0.00	0.00		Combining transmission 69 tooth lube idler gear FM4 measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 69T Lube Idler Gear SI	0.11		100.00	1000.00		Combining transmission 69 tooth lube idler gear SI measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 69T Lube Idler Gear SLF	0.03		4.00	1000.00		Combining transmission 69 tooth lube idler gear sideband level factor (SLF) measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 AFD Bearing Energy	5.03		25.00	1000.00		Combining transmission bearing asynchrounous frequency domian (AFD) vibration energy measured by input #2 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox XS #2 AFD High Frequency Energy	20.48		100.00	1000.00		Combining transmission bearing asynchrounous frequency domian (AFD) high frequency vibration energy measured by input #2 accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Combining Transmission Accessories Condition Indicators**

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CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 CBox Lube Pump #1 1P	0.04		2.00	1000.00		Combining transmission lube oil pump 1P vibration measured by input #1 accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox Lube Pump #2 1P	0.41		2.00	1000.00		Combining transmission lube oil pump 1P vibration measured by input #2 accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

### **Combining Transmission Oil Cooler Fan Condition Indicators**

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 CBox Fan Lat	0.02		0.27	0.30	0.36	Combining transmission oil cooler fan shaft 1P vibration level as measured by combining transmission oil cooler fan lateral accelerometer. Duplicates AVA-style 50 Hour vibration check.
						Combining transmission oil cooler fan bearing asynchrounous frequency domian (AFD)
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 CBox Fan Lat AFD Bearing Energy	5.33		40.00	1000.00		vibration energy measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 CBox Fan Long	0.05		0.27	0.30	0.36	Combining transmission oil cooler fan shaft 1P vibration level as measured by combining transmission oil cooler longitudinal accelerometer. Duplicates AVA-style 50 Hour vibration check.
Survey FPG100 CBox Fan Long AFD Bearing Energy	4.09		40.00	1000.00		Combining transmission oil cooler fan bearing asynchrounous frequency domian (AFD) vibration energy measured by longitudinal accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Cross Shafts Condition Indicators**

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CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 CBox XShaft #1 1P	0.18		0.50	0.80	1.00	Cross shaft #1 1P vibration from Survey FPG100 measurement.
Survey FPG100 CBox XShaft #2 1P	0.21		0.50	0.80	1.00	Cross shaft #2 1P vibration from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Engine Transmission #1 Condition Indicators**

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Engine Xmsn #1 35T Input DA1	10.54		100.00	1000.00		Engine Xmsn #1 35 tooth input gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 35T Input FM4	2.38		0.00	0.00		Engine Xmsn #1 35 tooth input gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 35T Input SI	0.44		100.00	1000.00		Engine Xmsn #1 35 tooth input gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 35T Input SLF	0.04		2.00	1000.00		Engine Xmsn #1 35 tooth input gear sideband level factor (SLF) from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 43T Output DA1	5.76		100.00	1000.00		Engine Xmsn #1 43 tooth output gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 43T Output FM4	2.54		0.00	0.00		Engine Xmsn #1 43 tooth output gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 43T Output SI	0.45		100.00	1000.00		Engine Xmsn #1 43 tooth output gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 43T Output SLF	0.17		2.00	1000.00		Engine Xmsn #1 43 tooth output gear sideband level factor (SLF) from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 AFD Bearing Energy	11.00		50.00	100.00		Engine Xmsn #1 bearing asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #1 AFD High Freq Energy	30.38		200.00	1000.00		Engine Xmsn #1 bearing asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Engine Transmission #2 Condition Indicators**

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CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Engine Xmsn #2 35T Input DA1	6.29		100.00	1000.00		Engine Xmsn #2 35 tooth input gear synchronous time average from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 35T Input FM4	2.68		0.00	0.00		Engine Xmsn #2 35 tooth input gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 35T Input SI	0.72		100.00	1000.00		Engine Xmsn #2 35 tooth input gear synchronous time average from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 35T Input SLF	0.45		2.00	1000.00		Engine Xmsn #2 35 tooth input gear sideband level factor (SLF) from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 43T Output DA1	6.49		100.00	1000.00		Engine Xmsn #2 43 tooth output gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 43T Output FM4	2.46		0.00	0.00		Engine Xmsn #2 43 tooth output gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 43T Output SI	0.47		100.00	1000.00		Engine Xmsn #2 43 tooth output gear FM4 from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 43T Output SLF	0.25		2.00	1000.00		Engine Xmsn #2 43 tooth output gear sideband level factor (SLF) from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 AFD Bearing Energy	9.00		50.00	100.00		Engine Xmsn #2 bearing asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement.
Survey FPG100 Engine Xmsn #2 AFD High Freq Energy	21.73		200.00	1000.00		Engine Xmsn #2 bearing asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### Fan and Shaft Vibration Check Condition Indicators

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Aft Fan Lat 1P Report	0.22		0.63	0.70	0.84	Aft transmission oil cooler fan shaft 1P vibration level as measured by aft transmission oil cooler fan lateral accelerometer.
Survey FPG100 Aft Fan Vert 1P Report	0.21		0.63	0.70	0.84	Aft transmission oil cooler fan shaft 1P vibration level as measured by aft transmission oil cooler fan vertical accelerometer.
Survey FPG100 CBox Fan Lat 1P Report	0.02		0.27	0.30	0.36	Combining transmission oil cooler fan shaft 1P vibration level as measured by combining transmission oil cooler fan lateral accelerometer.
Survey FPG100 CBox Fan Long 1P Report	0.05		0.27	0.30	0.36	Combining transmission oil cooler fan shaft 1P vibration level as measured by combining transmission oil cooler longitudinal accelerometer.
Survey FPG100 CBox XShaft #1 1P Report	0.18		0.50	0.80	1.00	Cross shaft 1P vibration level as measured by cross shaft #1 accelerometer.
Survey FPG100 CBox XShaft #2 1P Report	0.21		0.50	0.80	1.00	Cross shaft 1P vibration level as measured by cross shaft #2 accelerometer.
Survey FPG100 Sync Shaft @ HB #1 1P Report	0.75		5.00	8.00	10.00	Synchronizing shaft 1P vibration level as measured by hanger bearing #1 accelerometer.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Sync Shaft @ HB #2 1P Report	0.91		5.00	8.00	10.00	Synchronizing shaft 1P vibration level as measured by hanger bearing #2 accelerometer.
Survey FPG100 Sync Shaft @ HB #3 1P Report	0.82		5.00	8.00	10.00	Synchronizing shaft 1P vibration level as measured by hanger bearing #3 accelerometer.
Survey FPG100 Sync Shaft @ HB #4 1P Report	0.87		5.00	8.00	10.00	Synchronizing shaft 1P vibration level as measured by hanger bearing #4 accelerometer.
Survey FPG100 Sync Shaft @ HB #5 1P Report	2.07		5.00	8.00	10.00	Synchronizing shaft 1P vibration level as measured by hanger bearing #5 accelerometer.
Survey FPG100 Sync Shaft @ HB #6 1P Report	2.96		5.00	8.00	10.00	Synchronizing shaft 1P vibration level as measured by hanger bearing #6 accelerometer.
Survey FPG100 Sync Shaft @ HB #7 1P Report	1.05		5.00	8.00	10.00	Synchronizing shaft 1P vibration level as measured by hanger bearing #7 accelerometer.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Forward Rotor Mechanical Condition Indicators**

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CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Fwd SP AFD Bearing Energy	1.22		5.00	10.00		Forward swashplate bearing asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement.
Survey FPG100 Fwd SP AFD High Frequency Energy	0.16		2.00	3.00		Forward swashplate bearing asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 Fwd SP AFD High Frequency Energy #2	0.58		5.00	10.00		Forward swashplate bearing asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 Fwd SP AMD Bearing Energy	0.05		2.00	3.00		Forward swashplate bearing amplitude demodulated (AMD) vibration energy from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Forward Transmission Condition Indicators**

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 FXmsn Lat 28T Main Lube DA1	1.86		100.00	1000.00		Forward transmission 28 tooth main lube pump gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 28T Main Lube FM4	3.01		0.00	0.00		Forward transmission 28 tooth main lube pump gear FM4 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 28T Main Lube SI	0.23		100.00	1000.00		Forward transmission 28 tooth main lube pump gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 28T Main Lube SLF	0.31		4.00	1000.00		Forward transmission 28 tooth main lube pump gear sideband level factor measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 38T Main Lube Input DA1	4.68		100.00	1000.00		Forward transmission 38 tooth main lube pump input gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 FXmsn Lat 38T Main Lube Input SI	0.08		100.00	1000.00		Forward transmission 38 tooth main lube pump input gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 38T Main Lube Input SLF	0.02		4.00	1000.00		Forward transmission 38 tooth main lube pump input gear sideband level factor measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 44T Aux Lube Input DA1	4.68		100.00	1000.00		Forward transmission 44 tooth auxiliary lube pump input gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 44T Aux Lube Input SI	0.15		100.00	1000.00		Forward transmission 44 tooth auxiliary lube pump input gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 44T Aux Lube Input SLF	0.09		4.00	1000.00		Forward transmission 44 tooth auxiliary lube pump input gear sideband level factor measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 52T Aux Lube DA1	1.50		100.00	1000.00		Forward transmission 52 tooth auxiliary lube pump gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 52T Aux Lube FM4	2.85		0.00	0.00		Forward transmission 52 tooth auxiliary lube pump gear FM4 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 52T Aux Lube SI	0.21		100.00	1000.00		Forward transmission 52 tooth auxiliary lube pump gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 52T Aux Lube SLF	0.32		4.00	1000.00		Forward transmission 52 tooth auxiliary lube pump gear sideband level factor measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 61T Main Lube Idler DA1	1.84		100.00	1000.00		Forward transmission 61 tooth main lube pump idler gear DA1 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 61T Main Lube Idler FM4	2.96		0.00	0.00		Forward transmission 61 tooth main lube pump idler gear FM4 measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 61T Main Lube Idler SI	0.14		100.00	1000.00		Forward transmission 61 tooth main lube pump idler gear SI measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat 61T Main Lube Idler SLF	0.12		4.00	1000.00		Forward transmission 61 tooth main lube pump idler gear sideband level factor measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat AFD Bearing Energy	18.93		100.00	1000.00		Forward transmission bearing asynchrounous frequency domian (AFD) vibration energy measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Lat AFD High Frequency Energy	13.78		100.00	1000.00		Forward transmission bearing asynchrounous frequency domian (AFD) vibration high frequency energy measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 106T LRing	6.39		100.00	1000.00		Forward transmission 106T LRing gear DA1 measured by lateral accelerometer from Survey
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
DA1						FPG100 measurement.
Survey FPG100 FXmsn Vrt 106T LRing FM4	2.85		0.00	0.00		Forward transmission 106T LRing gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 106T LRing SI	0.98		100.00	1000.00		Forward transmission 106T LRing gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 106T LRing SLF	0.40		4.00	1000.00		Forward transmission 106T LRing gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 106T URing DA1	2.85		100.00	1000.00		Forward transmission 106T URing gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 106T URing FM4	2.81		0.00	0.00		Forward transmission 106T URing gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 106T URing SI	0.10		100.00	1000.00		Forward transmission 106T URing gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 106T URing SLF	0.12		4.00	1000.00		Forward transmission 106T URing gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 28T LSun DA1	4.09		100.00	1000.00		Forward transmission 28T LSun gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 28T LSun FM4	2.82		0.00	0.00		Forward transmission 28T LSun gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 28T LSun SI	0.10		100.00	1000.00		Forward transmission 28T LSun gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 28T LSun SLF	0.03		4.00	1000.00		Forward transmission 28T LSun gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 29T Input DA1	3.23		100.00	1000.00		Forward transmission 29 input gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 29T Input FM4	2.92		0.00	0.00		Forward transmission 29 input gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 29T Input SI	0.32		100.00	1000.00		Forward transmission 29 input gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 29T Input SLF	0.24		4.00	1000.00		Forward transmission 29 input gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 33T UPlanet DA1	1.72		100.00	1000.00		Forward transmission 33T UPlanet gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 33T UPlanet FM4	2.25		0.00	0.00		Forward transmission 33T UPlanet gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 33T UPlanet SI	0.05		100.00	1000.00		Forward transmission 33T UPlanet gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 33T UPlanet SLF	0.02		4.00	1000.00		Forward transmission 33T UPlanet gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 FXmsn Vrt 39T LPlanet DA1	4.18		100.00	1000.00		Forward transmission 39T LPlanet gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 39T LPlanet FM4	2.93		0.00	0.00		Forward transmission 39T LPlanet gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 39T LPlanet SI	0.16		100.00	1000.00		Forward transmission 39T LPlanet gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 39T LPlanet SLF	0.11		4.00	1000.00		Forward transmission 39T LPlanet gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 40T USun DA1	4.14		100.00	1000.00		Forward transmission 40T USun gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 40T USun FM4	2.36		0.00	0.00		Forward transmission 40T USun gear FM4 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 40T USun SI	0.05		100.00	1000.00		Forward transmission 40T USun gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 40T USun SLF	0.03		4.00	1000.00		Forward transmission 40T USun gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 51T Bevel DA1	3.08		100.00	1000.00		Forward transmission 51 tooth bevel gear DA1 measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 51T Bevel SI	0.12		100.00	1000.00		Forward transmission 51 tooth bevel gear SI measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt 51T Bevel SLF	0.12		4.00	1000.00		Forward transmission 51 tooth bevel gear SLF measured by lateral accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt AFD Bearing Energy	18.49		100.00	1000.00		Forward transmission bearing asynchrounous frequency domian (AFD) vibration energy measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt AFD Fan High Freq Energy	0.30		10.00	1000.00		Forward transmission bearing asynchrounous frequency domian (AFD) vibration high frequency energy measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt AFD High Frequency Energy	3.24		100.00	1000.00		Forward transmission bearing asynchrounous frequency domian (AFD) vibration high frequency energy measured by vertical accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

#### **Forward Transmission Accessories Condition Indicators**

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description		
Survey FPG100 FXmsn Lat Aux Lube 1P	0.16		4.00	1000.00		Forward transmission auxiliary lube oil pump 1P vibration level measured by lateral accelerometer from Survey FPG100 measurement.		
Survey FPG100 FXmsn Lat Main Lube & Hyd 1P	0.06		4.00	1000.00		Forward transmission main lube oil pump & hydraulic pump 1P vibration level measured by lateral accelerometer from Survey FPG100		
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description		

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
						measurement.
Survey FPG100 FXmsn Vrt Aux Lube 1P	0.11		4.00	1000.00		Forward transmission auxiliary lube oil pump 1P vibration level measured by vertical accelerometer from Survey FPG100 measurement.
Survey FPG100 FXmsn Vrt Main Lube & Hyd 1P	0.02		4.00	1000.00		Forward transmission main lube oil pump & hydraulic pump 1P vibration level measured by vertical accelerometer from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

# **Hanger Bearings Condition Indicators**CIs occurring on flight at 07/21/2022 13:32:48

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 HB #1 AFD Bearing Energy	8.18		150.00	250.00		Hanger bearing #1 asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement. Limit change on 11-2-05; yellow 50 to 75.
Survey FPG100 HB #1 AFD High Frequency Energy	2.45		300.00	450.00		Hanger bearing #1 asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 HB #2 AFD Bearing Energy	9.79		150.00	250.00		Hanger bearing #2 asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement. Limit change on 11-2-05; yellow 50 to 75.
Survey FPG100 HB #2 AFD High Frequency Energy	4.73		300.00	450.00		Hanger bearing #2 asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 HB #3 AFD Bearing Energy	13.89		150.00	250.00		Hanger bearing #3 asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement. Limit change on 11-2-05; yellow 50 to 75.
Survey FPG100 HB #3 AFD High Frequency Energy	5.30		300.00	450.00		Hanger bearing #3 asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 HB #4 AFD Bearing Energy	9.26		150.00	250.00		Hanger bearing #4 asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement. Limit change on 11-2-05; yellow 50 to 75.
Survey FPG100 HB #4 AFD High Frequency Energy	3.79		300.00	450.00		Hanger bearing #4 asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 HB #5 AFD Bearing Energy	8.90		150.00	250.00		Hanger bearing #5 asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement. Limit change on 11-2-05; yellow 50 to 75.
Survey FPG100 HB #5 AFD High Frequency Energy	3.71		300.00	450.00		Hanger bearing #5 asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 HB #6 AFD Bearing Energy	10.79		150.00	250.00		Hanger bearing #6 asynchrounous frequency domian (AFD) vibration energy from Survey FPG100 measurement. Limit change on 11-2-05; yellow 50 to 75.
Survey FPG100 HB #6 AFD High Frequency Energy	4.36		300.00	450.00		Hanger bearing #6 asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
Survey FPG100 HB #7 AFD Bearing						Hanger bearing #7 asynchrounous frequency domian (AFD) vibration energy from Survey
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Energy	10.47		150.00	250.00		FPG100 measurement. Limit change on 11-2-05; yellow 50 to 75.
Survey FPG100 HB #7 AFD High Frequency Energy	1.77		300.00	450.00		Hanger bearing #7 asynchrounous frequency domian (AFD) high frequency vibration energy from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

**MSPU Condition Indicators**CIs occurring on flight at 07/21/2022 13:32:48

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Aft Fan Lat Quality Amplifier	0.05		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Aft Fan Lat Quality DC Offset	0.04		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Aft Fan Vert Quality Amplifier	0.05		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Aft Fan Vert Quality DC Offset	0.04		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Aft SP Quality Amplifier	0.63		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Aft SP Quality DC Offset	0.09		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Aft Xmsn Lat Quality Amplifier	0.03		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Aft Xmsn Lat Quality DC Offset	0.03		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Aft Xmsn Vert Quality Amplifier	0.03		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Aft Xmsn Vert Quality DC Offset	0.35		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 CBox OC Fan Lat Quality Amplifier	0.14		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 CBox OC Fan Lat Quality DC Offset	0.07		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 CBox OC Fan Long Quality Amplifier	0.17		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 CBox OC Fan Long Quality DC Offset	0.04		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Fwd SP Quality Amplifier	0.22		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Fwd SP Quality DC Offset	0.13		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Fwd Xmsn Lat Quality Amplifier	0.04		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Fwd Xmsn Lat Quality DC Offset	0.03		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Fwd Xmsn Vert Quality Amplifier	0.05		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Fwd Xmsn Vert Quality	0.03		10.00	1000.00		Quality DC Offset Check.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
DC Offset						
Survey FPG100 Hanger Brg #1 Quality Amplifier	0.09		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Hanger Brg #1 Quality DC Offset	0.03		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Hanger Brg #2 Quality Amplifier	0.08		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Hanger Brg #2 Quality DC Offset	0.04		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Hanger Brg #3 Quality Amplifier	0.06		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Hanger Brg #3 Quality DC Offset	0.03		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Hanger Brg #4 Quality Amplifier	0.08		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Hanger Brg #4 Quality DC Offset	0.06		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Hanger Brg #5 Quality Amplifier	0.08		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Hanger Brg #5 Quality DC Offset	0.03		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Hanger Brg #6 Quality Amplifier	0.07		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Hanger Brg #6 Quality DC Offset	0.07		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Hanger Brg #7 Quality Amplifier	0.06		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Hanger Brg #7 Quality DC Offset	0.11		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Nose Gearbox #1 Quality Amplifier	0.03		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Nose Gearbox #1 Quality DC Offset	0.05		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 Nose Gearbox #2 Quality Amplifier	0.04		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 Nose Gearbox #2 Quality DC Offset	0.06		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 XShaft #1 Quality Amplifier	0.02		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 XShaft #1 Quality DC Offset	0.05		10.00	1000.00		Quality DC Offset Check.
Survey FPG100 XShaft #2 Quality Amplifier	0.03		10.00	1000.00		Quality Amplifier Check.
Survey FPG100 XShaft #2 Quality DC Offset	0.03		10.00	1000.00		Quality DC Offset Check.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

## **Synchronizing Shafts Condition Indicators**CIs occurring on flight at 07/21/2022 13:32:48

CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description
Survey FPG100 Sync Shaft 1P @ HB #1	0.75		5.00	8.00	10.00	Synchronizing shaft 1P vibration measured by hanger bearing #1 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 1P @ HB #2	0.91		5.00	8.00	10.00	Synchronizing shaft 1P vibration measured by hanger bearing #2 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 1P @ HB #3	0.82		5.00	8.00	10.00	Synchronizing shaft 1P vibration measured by hanger bearing #3 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 1P @ HB #4	0.87		5.00	8.00	10.00	Synchronizing shaft 1P vibration measured by hanger bearing #4 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 1P @ HB #5	2.07		5.00	8.00	10.00	Synchronizing shaft 1P vibration measured by hanger bearing #5 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 1P @ HB #6	2.96		5.00	8.00	10.00	Synchronizing shaft 1P vibration measured by hanger bearing #6 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 1P @ HB #7	1.05		5.00	8.00	10.00	Synchronizing shaft 1P vibration measured by hanger bearing #7 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 2P @ HB #1	0.26		2.00	4.00		Synchronizing shaft 2P vibration measured by hanger bearing #1 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 2P @ HB #2	0.34		2.00	4.00		Synchronizing shaft 2P vibration measured by hanger bearing #2 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 2P @ HB #3	0.16		2.00	4.00		Synchronizing shaft 2P vibration measured by hanger bearing #3 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 2P @ HB #4	0.33		2.00	4.00		Synchronizing shaft 2P vibration measured by hanger bearing #4 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 2P @ HB #5	0.28		2.00	4.00		Synchronizing shaft 2P vibration measured by hanger bearing #5 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 2P @ HB #6	0.13		2.00	4.00		Synchronizing shaft 2P vibration measured by hanger bearing #6 from Survey FPG100 measurement.
Survey FPG100 Sync Shaft 2P @ HB #7	0.21		2.00	4.00		Synchronizing shaft 2P vibration measured by hanger bearing #7 from Survey FPG100 measurement.
CI Name	Value	Goal	Caut.	Exceeded	Grounded	Description

Report generated 08/16/2022 14:10:42