



**CF34-10A ENGINE**

Dated: April 21, 2014

**CESM-001**

**OIL CONSUMPTION MONITORING RECOMMENDATIONS**

\* \* \* FOR ALL -10A MODELS

TRANSMITTAL SHEET

GE AVIATION

CF34-10A COMMERCIAL ENGINE SERVICE MEMORANDUM (CESM) 001, REVISION 0

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SUBJECT: CF34-10A Oil Consumption Monitoring Recommendations

April 21, 2014

This page transmits Revision 0 of CF34-10A Oil Consumption Monitoring Recommendations, CESM-001.

This revision is the basic issue of the CF34-10A Oil Consumption Monitoring Recommendations.



**CESM-001**

**OIL CONSUMPTION MONITORING RECOMMENDATIONS**

\* \* \* FOR ALL -10A MODELS

**Oil Consumption Monitoring Recommendations**

1. **Description of Problem**

Various CF34 operators have requested that GE provide a recommended procedure to calculate engine oil consumption and evaluate engine oil consumption trends.

2. **Purpose**

The purpose of this CESM is to provide GE Aviation guidelines for monitoring engine oil consumption.

NOTE: The procedure for monitoring engine oil consumption should developed relative to each operator's maintenance practices and flight operation characteristics.

3. **Discussion and Recommendations**

1. All operators are required to develop an oil monitoring program that is designed to ensure that any increase in engine oil consumption is identified and corrective action taken. A suggested method of monitoring oil consumption follows.
2. Average oil consumption can be calculated using data from the last 10 engine oil servicing tasks. For reference, the usual average oil consumption is between 0.15 and 0.33 US quart per hour (142-312 cc/hr). The average oil consumption trend is a better predictor of the overall consumption trend. If a single point oil consumption shows a sudden increase, the cause should be investigated and the consumption trend must be closely monitored. Attachment 1 provides a hypothetical example for monitoring oil consumption.
3. A single oil consumption data point (one engine oil servicing) above 0.40 US quart per hour (378 cc/hr) is permitted if engine oil consumption permits the flight to be completed. Engine oil consumption must be closely monitored and the flight crew must be given the data. Troubleshooting for oil consumption should be performed at next maintenance opportunity.
4. If the average oil consumption is above 0.40 US quart per hour (378 cc/hr) and engine oil servicing for last two consecutive flights is less than 3 quarts (946 cc), then the cause of the oil consumption must be determined and corrected at the next maintenance interval.
5. If the average oil consumption is above 0.40 US quart per hour (378 cc/hr) and engine oil servicing is more than 3 US quarts (946 cc) for the last two consecutive flights, then the cause of the oil consumption must be determined or perform the engine ground oil consumption test prior to next flight.



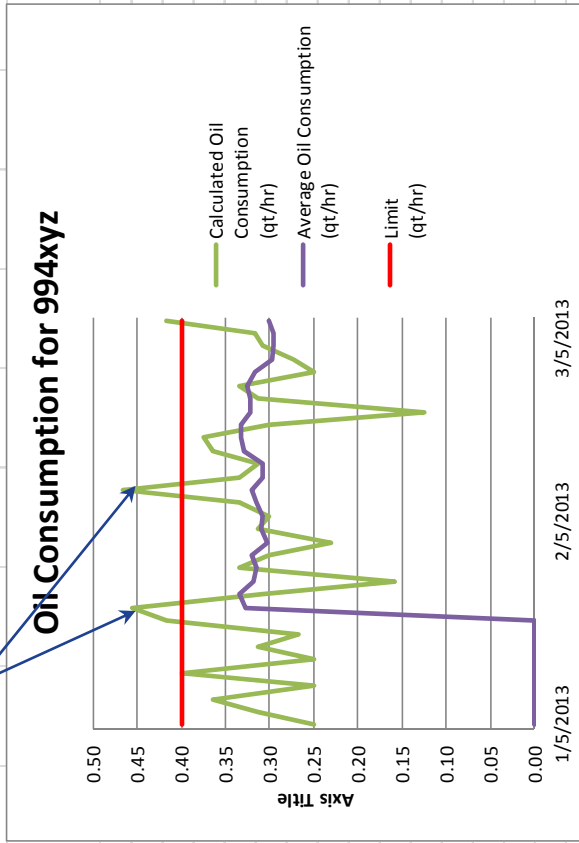
**CESM-001**

**OIL CONSUMPTION MONITORING RECOMMENDATIONS**

\* \* \* FOR ALL -10A MODELS

- a. If the engine ground oil consumption test shows that the engine oil consumption is within limits, continue monitoring the engine oil consumption until the average oil consumption is within limits. If the engine ground oil consumption test shows that the engine oil consumption is above limits, then the cause of the oil consumption must be determined and corrected prior to the next flight.
- b. If troubleshooting does not indicate the cause of the problem and no action can be taken to reduce the oil consumption rate, the engine must be replaced.

Engine Oil Consumption to be monitored



Date	Engine FH Hr since last servicing	Oil Added (Qts)	Calculated Oil Consumption (qt/hr)	Average Oil Consumption (qt/hr)	Limit (qt/hr)
1/5/2013	12	3	0.25	-	0.4
1/7/2013	16	5	0.31	-	0.4
1/9/2013	11	4	0.36	-	0.4
1/11/2013	16	4	0.25	-	0.4
1/13/2013	10	4	0.40	-	0.4
1/15/2013	16	4	0.25	-	0.4
1/17/2013	16	5	0.31	-	0.4
1/19/2013	15	4	0.27	-	0.4
1/21/2013	12	5	0.42	-	0.4
1/23/2013	11	5	0.45	0.33	0.4
1/25/2013	13	4	0.31	0.33	0.4
1/27/2013	19	3	0.16	0.32	0.4
1/29/2013	12	4	0.33	0.31	0.4
1/31/2013	10	3	0.30	0.32	0.4
2/2/2013	13	3	0.23	0.30	0.4
2/4/2013	16	5	0.31	0.31	0.4
2/6/2013	10	3	0.30	0.31	0.4
2/8/2013	18	6	0.33	0.31	0.4
2/10/2013	15	7	0.47	0.32	0.4
2/12/2013	12	4	0.33	0.31	0.4
2/14/2013	16	5	0.31	0.31	0.4
2/16/2013	11	4	0.36	0.33	0.4
2/18/2013	16	6	0.38	0.33	0.4
2/20/2013	10	3	0.30	0.33	0.4
2/22/2013	16	2	0.13	0.32	0.4
2/24/2013	16	5	0.31	0.32	0.4
2/26/2013	15	5	0.33	0.33	0.4
2/28/2013	12	3	0.25	0.32	0.4
3/2/2013	11	3	0.27	0.30	0.4
3/4/2013	13	4	0.31	0.30	0.4
3/6/2013	19	6	0.32	0.30	0.4
3/8/2013	12	5	0.42	0.30	0.4