

# 15C.64A3 Activity: Mature Quiet Aircraft Technology

## Description

Mature quieter aircraft technologies via the Continuous Lower Energy Emissions and Noise (CLEEN) Program.

Special Designations: OSI

## Commentary (June 2015)

"After successful flight demonstration (TRL 7) of the ceramic matrix composite acoustic exhaust nozzle in July 2014, Boeing is working on a second design cycle of the nozzle. This second design is taking lessons learned from the ground and flight tests on the first design to see what additional benefits can be derived. The detailed design review will take place in Q3 2015. Final reporting is expected in Q4 2015. Pratt & Whitney is completing aero and acoustic wind tunnel testing of a scaled model of their CLEEN demonstrator engine. This test started in April 2015 and will be completed this month. The full scale engine test of CLEEN technologies is scheduled for early 2016. The CLEEN II SIR has closed and contract negotiations are taking place. "

## Commentary (May 2015)

"Boeing continues work on a second design cycle of their ceramic matrix composite acoustic exhaust nozzle. This design is taking lessons learned from the previous design and successful testing to see what additional benefits can be derived. Detailed design review will take place in Q3 2015. Final reporting is expected in Q4 2015. Pratt & Whitney is performing aero and acoustical testing and analyses for the scaled model wind tunnel test of their CLEEN demonstrator engine. This test ran throughout April 2015 and May 2015. The test includes noise measurements with the advanced high bypass ratio geared turbofan model. The full scale engine test of CLEEN technologies is scheduled for early 2016. The CLEEN II SIR has closed and contract negotiations are taking place."

## Status Table (Qualitative Metric)

Period	Actual
10/2014	Green
11/2014	Green
12/2014	Green
01/2015	Green
02/2015	Green
03/2015	Green
04/2015	Green
05/2015	Green
06/2015	Green

✓ Indicates that the item is complete.