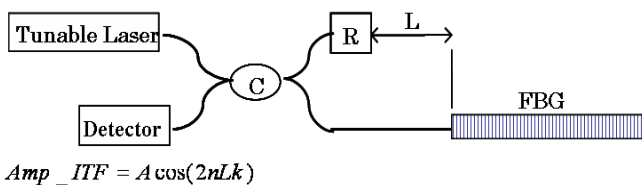


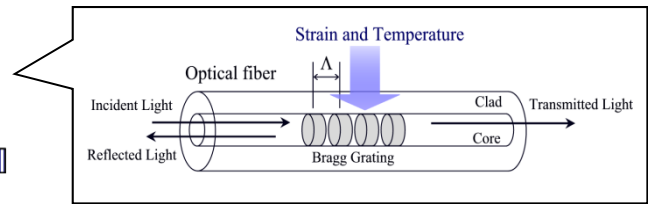
FBG/OFDR Sensing System

Sub-millimeter spatial resolved strain distribution is possible
Water-tough, Explosion-proof, Applicable for strain monitor for important parts

OFDR Principle Optical Frequency Domain Reflectometry



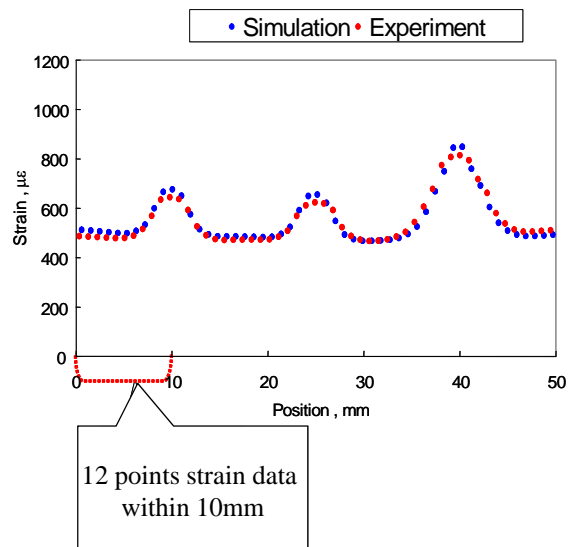
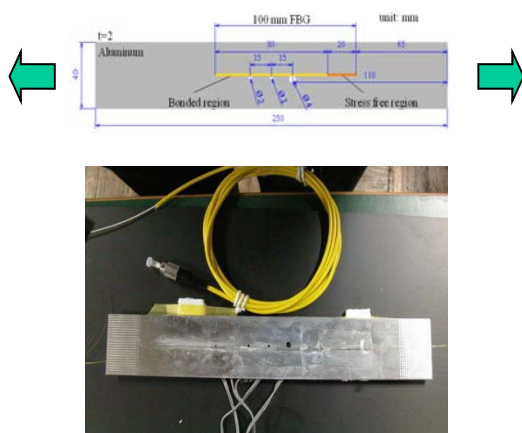
Fiber Bragg Grating sensor



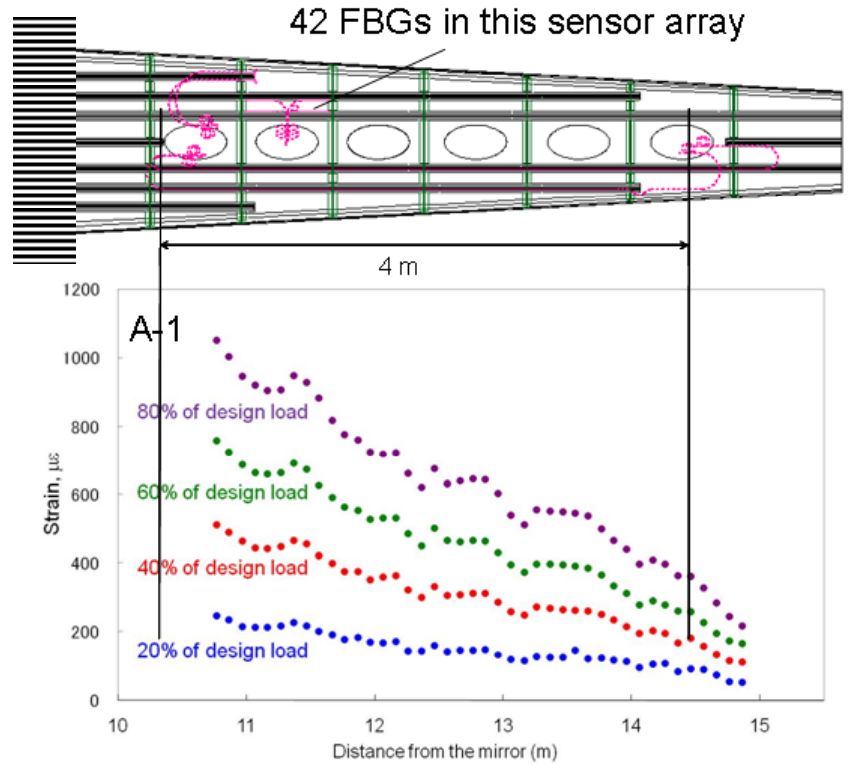
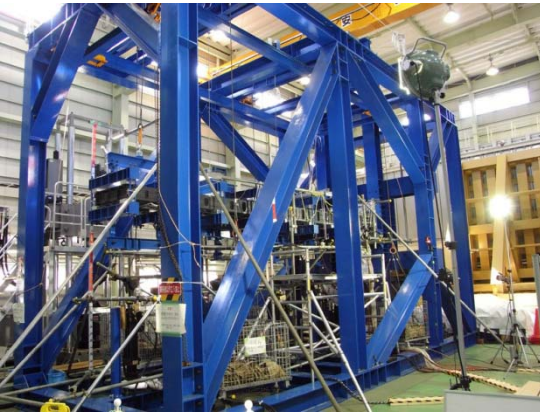
【Performance】

- Max. 15 meters
- Temp : $-196^{\circ}\text{C} \sim +120^{\circ}\text{C}$
- Spatial resolution : 0.6mm (typical)
- Strain resolution : $1 \mu \varepsilon$
- Sampling : 1Hz

Spatial resolution



VaRTM Composite Full-scale Wing Demonstrator (length = 6 m) by JAXA

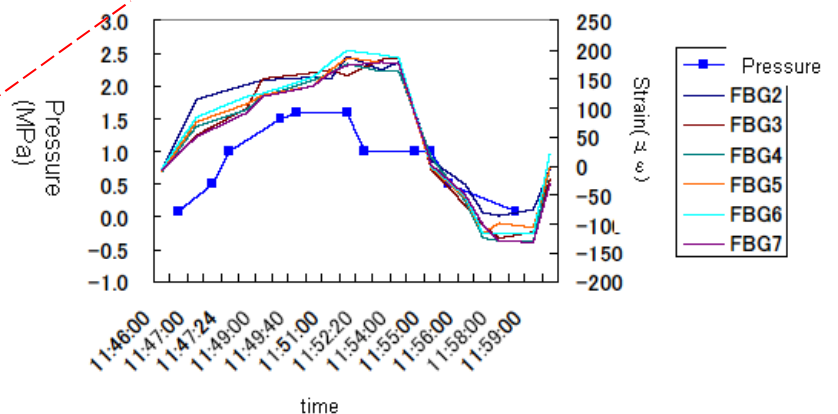


Strain distribution at different loads

Pressure Vessel at Oil refinery



FBG array



Linear strain movement along with pressure operation