

Efficiency Considerations in **Low Pressure Turbines**

Discussion Group Topic
Minnowbrook VI Workshop

8/24 -26/09

Discussion Group List of Participants

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Issues & Topics Discussed

- **Aviation Week reported shortfall in LPT efficiency due to the application of “high lift airfoils”**
- **Progress in the design technologies in LPTs during the last 20 years**
 - **Application of RANS based CFD codes**
 - **Integration of recent experimental data and modeling of LPT airfoil specific flows into design methods**
- **Opportunities to further enhance LPT efficiency for commercial aviation and military transport application and to impact emissions, noise, weight & cost**

Recommendations

- **Hold a workshop with participation from the aviation propulsion industry in USA & EU to benchmark status and opportunities to improve SFC and reduce the emissions through enhancements in LPT performance**
- **Focus the LPT research effort to align with the Environmentally Responsive Aviation initiative**