



Identification of the installation/facility :

Country: Germany
Location (city): Neubiberg/Munich
Name of the facility: Jet Engine Test Facility
Date of construction or of acquisition or of main refurbishment: 2010
Owner: Institute of Jet Propulsion
Contact point: Prof. Dr.-Ing. Reinhard Niehuis
Internet site: www.unibw.de/isa

Technical characteristics:

1 - Type of infrastructure

Wind tunnel	<input type="checkbox"/>
Propulsion bench	<input checked="" type="checkbox"/>
Structures facility	<input type="checkbox"/>
Material facility	<input type="checkbox"/>
Simulator (ex. Flight simulator, tower, ...)	<input type="checkbox"/>
Flight test bed (aircraft, embedded facilities, ...)	<input type="checkbox"/>
Supercomputers	<input type="checkbox"/>
Other	<input type="checkbox"/>

2 - Main technical characteristics

Indoor Test Facility capable to operate jet engines up to 50kN thrust
Fuel: NATO JP-8 / F34 almost equal to Jet A1
Engine Dimensions: Length up to 5,3m, Diameter up to 1,5m
Test Section 4,5x6m cross sectional area
Reheat Operation possible
Available jet engines: Larzac 04 C5, Bristol-Sideley Orpheus, Rolls-Royce RB145, MexJET

3 - Research domains which can be addressed (refer to ACARE taxonomy

<http://www.acare4europe.com/docs/ASD-Annex-final-211004-out-asd.pdf>)

Pacing and Emerging

4 - Main (or specific) associated measurement techniques

- Conventional instrumentation in order to measure gas path parameters
- Refurbishment of the entire measurement system in 2010 and installation of a new data acquisition infrastructure
- High frequency pressure measurements inside the compressor system for online stall detection

5 - Operational status

- Fully operational (available in 2010 for almost 9 month)



6 - picture



Financial elements:

Replacement cost (M€uros)

- | | |
|---------------|-------------------------------------|
| Less than 10 | <input type="checkbox"/> |
| 10 to 30 | <input checked="" type="checkbox"/> |
| 30 to 60 | <input type="checkbox"/> |
| 60 to 100 | <input type="checkbox"/> |
| More than 100 | <input type="checkbox"/> |

Practices concerning:

Access policy (contract, voucher, free access for research, etc...)
contract

MexJET research engine only available for MTU Aero Engines or customers within projects with MTU participation

Support (regional, national, European, private, ...)
national

Comments:

Origin of information ('signature'): author and date

Prof. Dr.-Ing. Reinhard Niehuis, 14.12.2010