



AIM

Advanced In-flight Measurement Techniques

FINAL WORKSHOP

27th – 28th of October 2009

at

DLR - Göttingen

School-Lab
Bunsenstraße 10
37073 Göttingen
GERMANY

Fritz Boden, Phone: +49(0)551 709 2299, Email: fritz.boden@dlr.de

Agenda

27th of October, 2009

Time	Title	Speaker	Organisation
8:00 – 9:00	Registration		
Opening			Session Chair: A. Dillmann
9:00 – 9:05	Welcome	A. Dillmann	DLR
9:05 – 9:35	Flight Testing at Airbus (Keynote speech)	P. Girard	AIRBUS Opera- tion
9:35 – 09:55	Aeronautics research in the EC Framework Pro- gramme (Keynote speech)	R. Denos	European Com- mission
9:55 – 10:25	AIM – an introduction to the project	F. Boden	DLR
	Coffee break		
Deformation measurements			Session Chair: H. Jentink
10:50 – 11:20	In-Flight High Accuracy wing deformation measure- ments based on image correlation	H. Veerman	NLR
11:20 – 11:40	Vibration measurements by means of IPCT	F. Boden	DLR
11:40 – 12:10	P 180 propeller deformation study	B. Stasicki	DLR
12:10 – 12:40	In-Flight Wing deformation measurements on an A 380 using IPCT	T. Kirmse	DLR
	Lunch Break		
13:45	come together for a group photo		
High Lift Flow measurements			Session Chair: N. Lawson
14:00 – 14:30	Background Oriented Schlieren (BOS) Method for vortex investigations	N. Skornyakova	MPEI
14:30 – 15:00	Ground based large scale vortex investigations with BOS and PIV	C. Politz	DLR
15:00 – 15:30	Preliminary measurements of aircraft wake vortex characteristics in an atmospheric boundary layer wind tunnel	K. Gerry	Cranfield Univer- sity
	Coffee break		
16:00 – 16:30	An optical model of a Stereoscopic Particle Image Velocimetry system for in-flight measurement	D. Casella	Cranfield Univer- sity
16:30 – 17:00	In-Flight PIV feasibility study	N. Lawson / C. Politz	Cranfield Univer- sity / DLR
End of the first day			
	Workshop Dinner		

28th of October, 2009

Time	Title	Speaker	Organisation
Opening			Session Chair: F. Boden
8:30 – 9:00	ATRA – status and future aspects (Keynote speech)	G. Plützer	DLR
9:00 – 9:30	The activities of Rzeszow University of Technology in Aviation (Keynote Speech)	J. Bakunowicz	Rzeszow University
9:30 – 10:00	AOS X-EMA High Speed Camera and its Airborne Applications	R. Huber	AOS
	Coffee break		
Surface Flow Measurements			Session Chair: N. Lawson
10:20 – 10:50	In-Flight Experiments on active TS-wave control on a 2D-laminar wing glove	A. Pätzold	TU Berlin
10:50 – 11:20	In-Flight Pressure measurement using PSP techniques	C. Klein	DLR
Helicopter investigations			Session Chair: H. Jentink
11:20 – 11:50	InfraRed Techniques on Helicopters	L. Girard / K. deGroot	Eurocopter / DLR
11:50 – 12:20	Blade deformation measurements with IPCT on an EC135 helicopter rotor	C. Maucher	Eurocopter
12:20 – 12:40	A Full-Scale Particle Image Velocimetry Investigation of “Young” Rotor Blade Tip Vortices	M. Raffel	DLR
	Lunch Break		
13:30 – 14:00	1.5µm lidar sensor for helicopter blade tip vortex detection	M. Valla	ONERA
Summary of the presented topics			Session Chair: F. Boden
14:00 – 14:30	Assessment of wing and propeller deformation measurement techniques from the point of view of a small airplane producer	P. Ruzicka	EVEKTOR
14:30 – 15:00	Final remarks of the participants		
15:30 – 15:45	Final remarks of the EC	R. Denos	European Commission