

# STUDY ON CONCEPTS FOR RADAR INTERFEROMETRY FROM SATELLITES FOR OCEAN (AND LAND) APPLICATIONS

Studie zu Konzepten für Radar-Interferometrie über Ozeanen (und Land) im Rahmen zukünftiger Satellitenmissionen

## (KoRIOLiS)

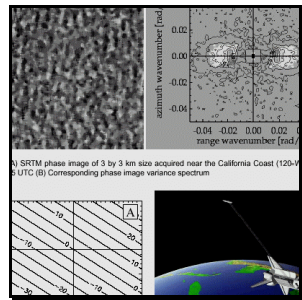
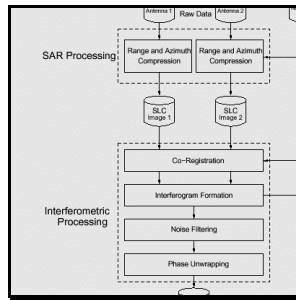
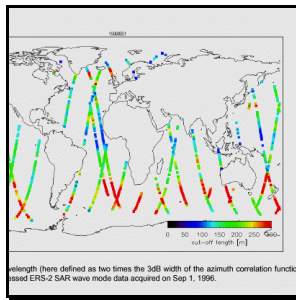
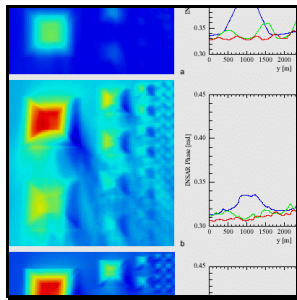


Table 1: Parameters of the Airlander aircraft used as platform for the AeS-1 InSAR system.

Velocity $V$	400
Height	2000
Transmitting frequency	100
Pulse repetition frequency	1000
V-Beamline $\beta_v$	0
Incidence angle $\alpha$	30
Polarization	HH
Range resolution $\Delta R$	10
Azimuth resolution $\Delta A$	10
Integration time $T_{int}$	10
R/V	10

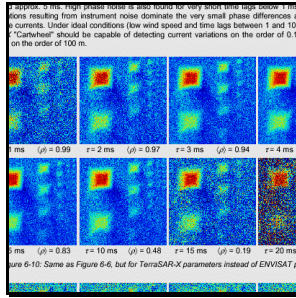
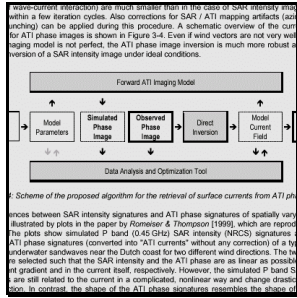
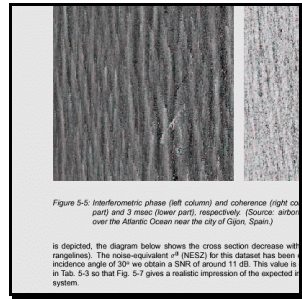
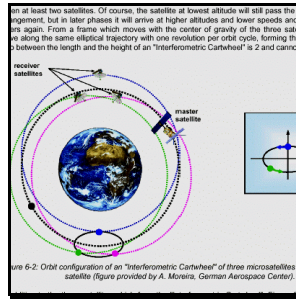
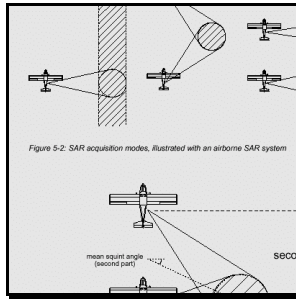
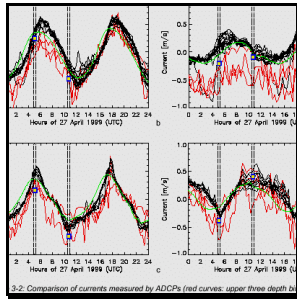
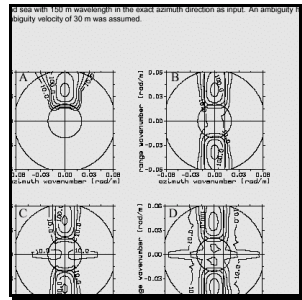
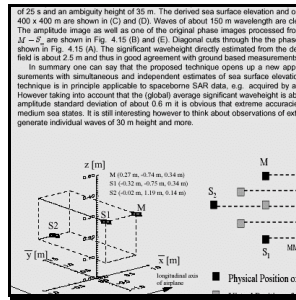
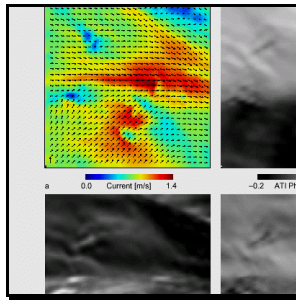
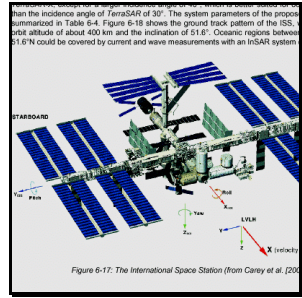


Table 2: Total power budget for potential X- and L-band systems.

Parameter	X-band		L-band	
	physical units	dB	physical units	dB
$P_t$	3 kW	34.8	3 kW	34.8
$G_1$	44 dB	44.0	38 dB	38.0
$G_2$	44 dB	44.0	38 dB	38.0
$\Delta L$	$\Delta L = 0.031$ m	-30.1	$\Delta L = 0.2$ m	-14.0
section $\sigma^0$	-10 dB	-10.0	-10 dB	-10.0
$R$	$R = 677$ km	-206.8	$R = 677$ km	-206.8



## FINAL REPORT

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<http://www.ifm.uni-hamburg.de/~romeiser/koriolis.htm>

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