

Estimating the product PSF

F. Baret, E. Fillol

Data Base used

High spatial resolution images

- 35 images SPOT-HRV&HRG (2001 – début 2005)
- 20m Resolution
- TOC reflectance in B1, B2 et B3 transformed in fCover
- masking clouds

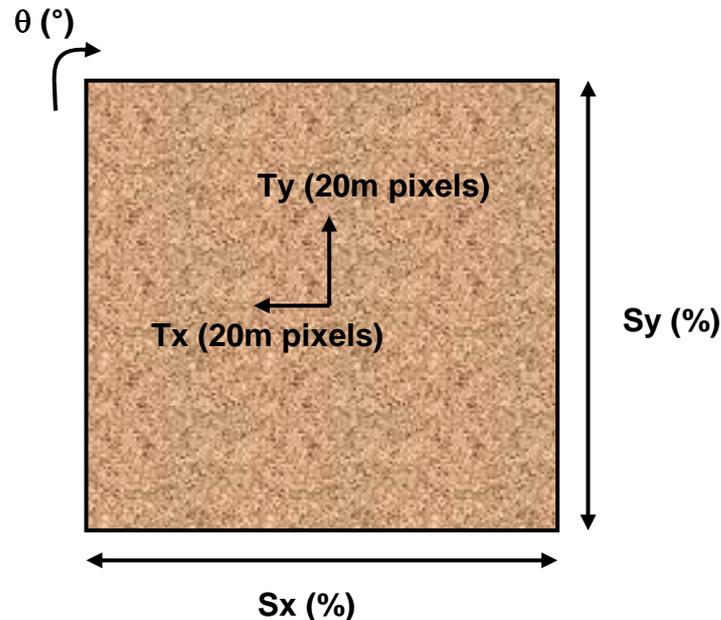
CYCLOPES V3 fCover products

- 2 years (2002 & 2003) : 70 décades

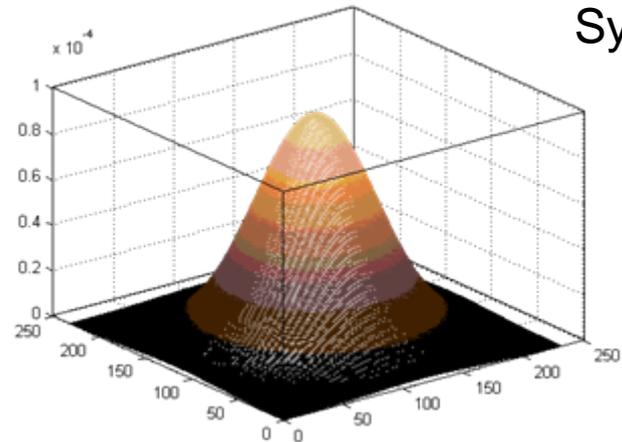
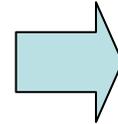
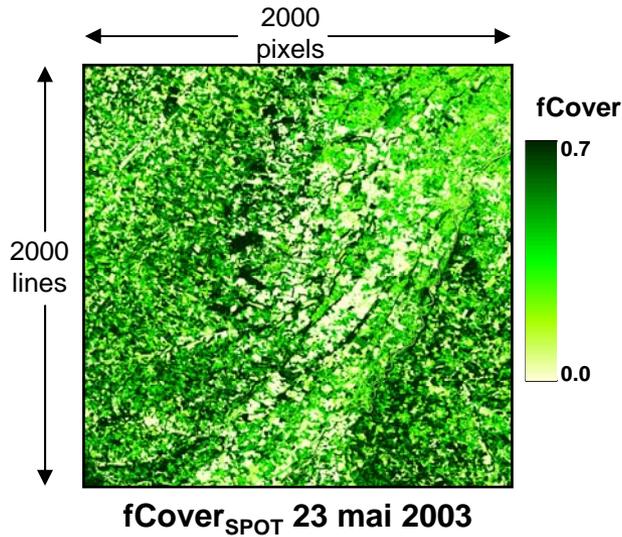
Objectives

Comparing SPOT (HR) – CYCLOPES (MR)

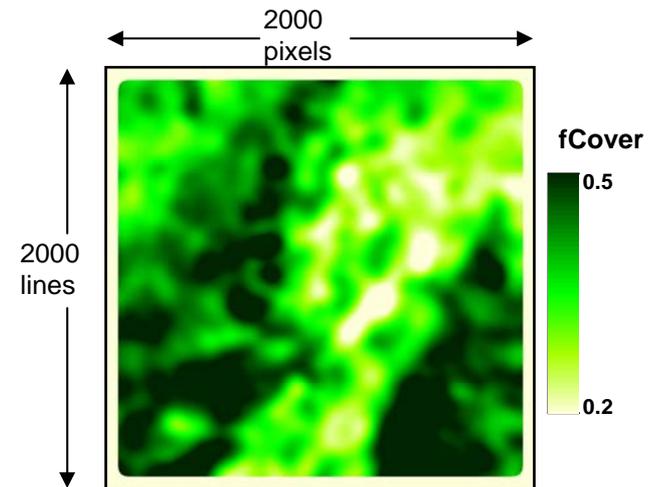
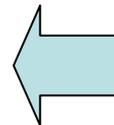
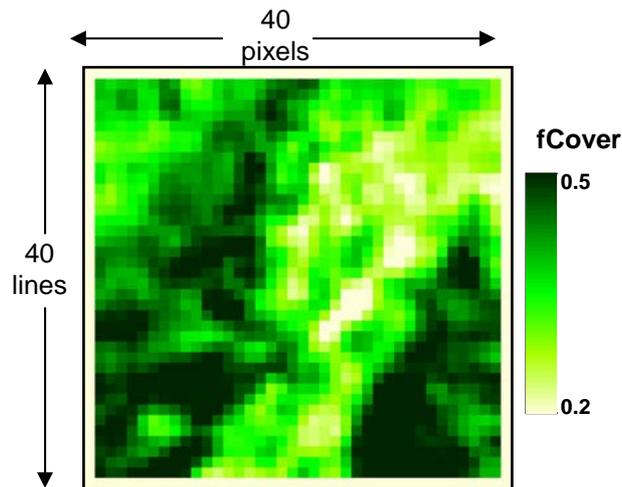
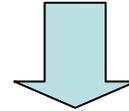
- 1 – Re-projection into Lambert conical system (ENVI)
- 2 – Co-registration with SPOT images (rotation, dilation, translation) by spatial correlation between $fCover_{CYCLOPES}$ et $fCover_{SPOT}$ agrégé à 1km



From 20m to 1km



Gaussian
Symmetrical

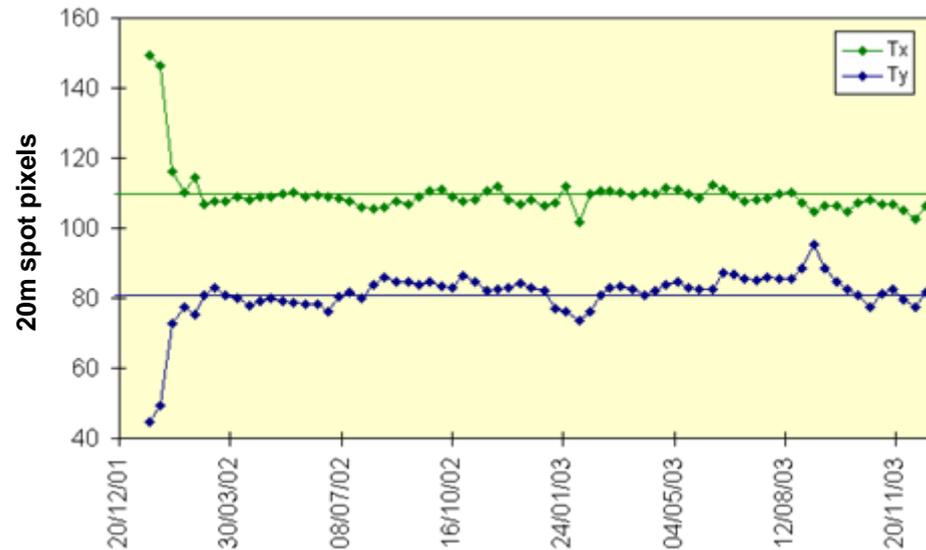


Results on the registration characteristics

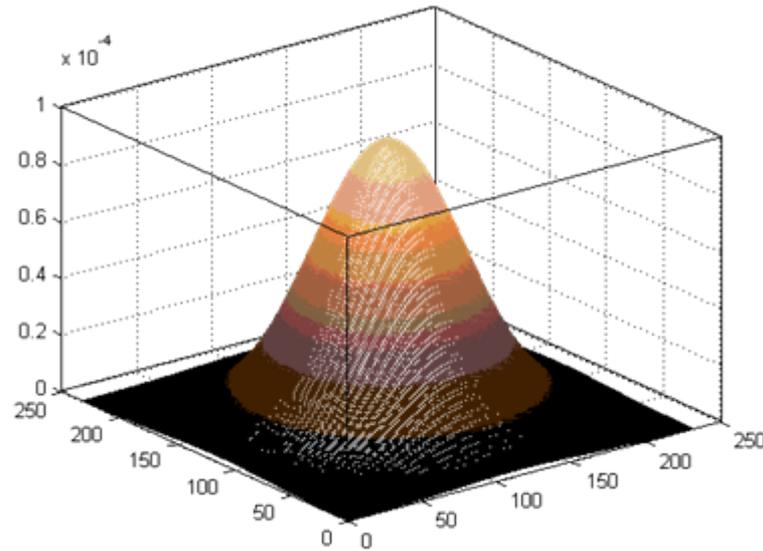
Distributions of registration characteristics

	θ ($^\circ$)	Sx (%)	Sy (%)	Tx (pixel 20m)	Ty (pixel 20m)
Mean	-0.222	-0.57	-0.01	110	81
Min	-0.665	-0.71	-0.02	102	44
Max	-0.119	0.41	0.11	150	95
σ	0.084	0.22	0.01	7	7

Tx et Ty are biased but temporally stable



Results for the PSF



Half width maximum = 960m

Comparaison $fCover_{CYCLOPES}$ et $fCover_{SPOT}$

Profils temporels

