Cosmo main questions from and for WGs (1/5)

- **Orbital strategy** (WGs Geophysic, risks, cartography, ...
  - Is there a different phasing than the nominal one at 16 days (for calibration in the beginning of life)
  - what will be the relative positioning of the satellites
  - are they different missions or relative positioning planned
  - what about tandem modes or other “close” modes (minimum distance?)
  - what is the ground track specification or orbit tube
- **Acquisition strategy** (all WGs)
  - when there is some spare room for programming, is there a civil “background mission” in a dedicated mode ?
- **Pointing and positioning :** (WGs Geophysic, cartography, ...)
  - what are the main precision caracteristics (satellite / product) Specs/expected performances
  - Are the satellites Yaw steered (Specs/expected variation on Az Doppler ?)
  - is there an help on line to chose interferometric pairs (orbit availability ? precisions/time of deliveries ?)
- **On board acquisition reactivity time constants** (all WGs)
  - between different modes
  - between Right / Left acquisition
  - between spotlight modes

Cosmo main questions from and for WGs (2/5)

- **Routine / Emergency programming** (all WGs)
  - civil users programming constraints
- **Data availability** (all WGs)
  - when the first modes will be calibrated (nb of months after launch) ?
  - which ones will be available first?
- **Ordering** (all WGs)
  - How can we chose acquisition in the archive or program it ? Any software available, like ESA DESCW, Radarsat SwathPlanner ?
- **SCANSAR :** (WGs Geophysic, risks)
  - can the bursts be synchronised ?
  - Number of sub-swaths
- **SPOT LIGHT :** (all WGs)
  - is the meter resolution available for each incidence angle or is it an average value (at which angle then) or a slant range value ?
  - Is it a metric SLC image or is there 1m multi look product
- **STRIPMAP/SPOTLIGHT** (all WGs)
  - how many different incidence angle are available ?

Cosmo main questions from and for WGs (3/5)

- **Polarimetry** (all WGs)
  - How does the ping-pong mode works ? What is emitted ? What is received? Is there a Phase coherence Channel ? Why 15m resolution (and only 3m in HIMAGE mode?) Number of looks ? Prf ?
- **Image Gain** (all WGs)
  - Is there a possibility to adapt image gain when programming ? When processing ? Is there any AGC and BAQ compression scheme ?
- **Updated system documents for dual use purposes** (all WGs)
  - any reference available ? CEOS format description of data ?
  - What about Raw data synthesis ?
  - Main image quality parameters (specs/expected) ?
  - Antenna Pattern and Prf for each dual mode
  - chirp bandwidth, weighting in range and Az Spectra in dual products
  - NESZ for the instrument and SLC dual products

Cosmo main questions from and for WGs (4/5)

	SpotLight 2	StripMap	Polarim.	ScanSAR Wide	ScanSAR Huge
Incidence	de 20° à 59,5°				
Swath	10 km	40 km	40 km	100 km	200 km
Résolution	1 m	3 m	15 m	30 m	100 m
Looks	1	?	?	?	?
				sub swaths nb?	sub swaths nb?
Nes0 instr.	de -24 à -22 dB ?				
Nes0 image	-19 dB (at what incidence Angle?)				
Préc. Radiom	1 dB				
Dynamique	< 65 dB (point target ?)				
Ambiguités	????	????			
Azimut	-22 … -18 dB	-22 … -20 dB			
Distance	-22 … -20 dB				
ISLR	< -12 dB ?				
PSLR	< -22 dB ?				
Polarisation	HH ou VV	HH et/ou VV, HV, VH			
Cross-Polar.	-25 dB ?				
Erreur de Localisation	4 m (instrument)				

Cosmo main questions from and for WGs (5/5)

Example of Questions (sea WG)

• limits in Wind Speed for X Band data on sea surface to see fuel pollutions

•capacity of Cosmo to detect Wind Field (Doppler estimation, polarimetry ?)

--> any study on metric or decametric X Band data are welcome

--> we need simulated data to be prepared for Cosmo program