

Metop-SG Phase A1 studies

Data Volume Considerations

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3rd Post-EPS User Consultation Workshop 29-30 September 2011
Darmstadt, Germany

Data Rate: a Space Segment Issue



	Satellite A	Satellite B
Stored Mission Data	850 Mbps / Ka-Band	125 Mbps / Ka-Band
Direct Data Broadcast	80 Mbps / X-Band	10 Mbps / X-Band

Ka-band:

- **Necessary for the envisaged payload complement even if instruments are re-accommodated**
- **NOT a cost driver or risk element for the space segment**

X-band:

- **Necessary and sufficient to broadcast all data (DDB)**
- **NOT a cost driver or risk element for the space segment**

High Data Volume:

- To be re-patriated
 - To be processed
 - To be disseminated
 - To be archived
- => high operational costs**

Solutions:

- either Review instrument requirements => Simpler instruments
=> less data => less products
- or Maintain instrument requirements => high volume =>
review data distribution policy:
 - >> what data / products are time critical
 - >> who are the users
 - >> what means can be used for an efficient and
affordable distribution