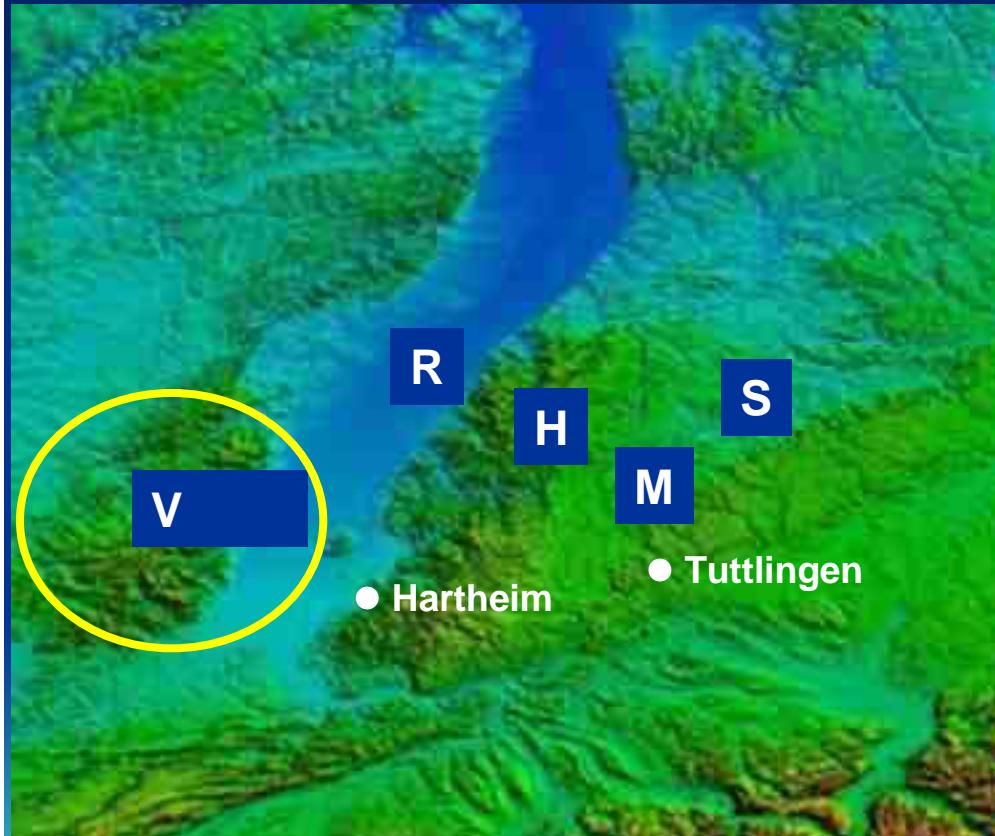


Supersite in the Vosges & Rhine valley



- 1 month
- together with SAFIRE F20 operations

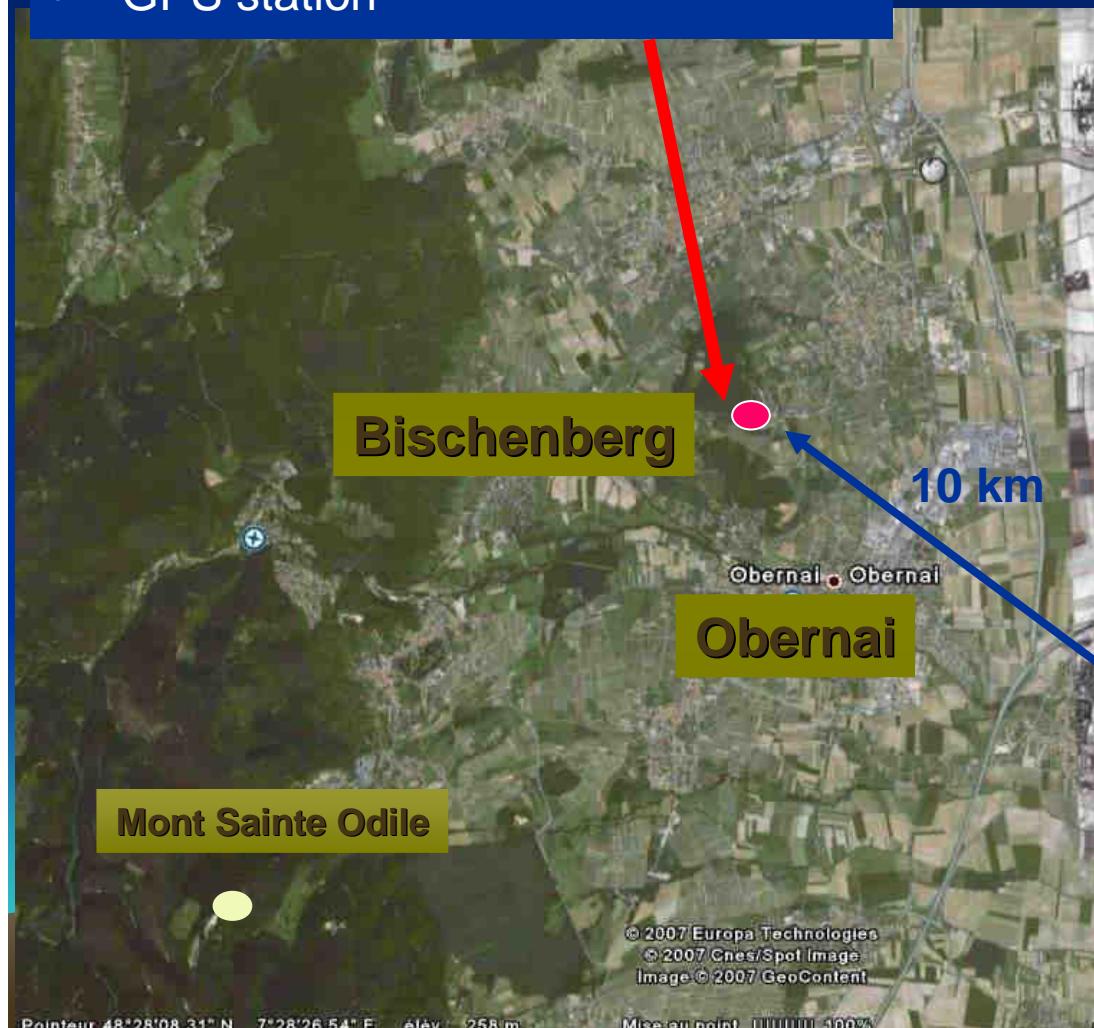
What is new?

- Recce completed as of 30-31 January 07
- Valley & mountain sites identified
- Dates of operations: 1-31 July
- Additional IPSL partners joining in (strengthening of the “aerosol” component)
- Additional equipment (MWR)

→ Supersite coordinator(s) designated once staff rotations are established

Vosges (Bischenberg):

- LaMP
- X-band radar
- GPS station



Rhine valley (Meistratzheim):

- CNRM / 4-M
- RDS station
- UHF + SODAR + Scintillometer
- Surface flux stations (2)
- Soil moisture station (2)
- IPSL
- TReSS (Mini-Lidar + CIMEL + IR radiometers + aerosol sampler)
- Lidar Raman
- GPS station
- CNES
- Microwave radiometer
- LaMP
- K-band radar & disdrometer

Valley Site (Meistratzheim)



http://www.g... Go

Rhine valley (Meistratzheim)

ACCUEIL VVISUALISER RECHERCHER CATALOGUER AIDE QUI SOMMES NOUS ECRIVEZ ACTUS/PRESSE

Aller à Meistratzheim OK Recherche avancée

visu 2D

CE

QUABLES

uments, villes

s de vues

ml oris

CES

eportail

IGN INSTITUT GÉOGRAPHIQUE NATIONAL

1 : 12000

FRANCE

SCINTILLO

SODAR

M. Friess Romain

200 400 600 800 1000 1200 m

200 400 600 800 1000 1200 m

IGN - BRGM 2006

Mentions Légales

This screenshot shows a detailed aerial photograph of a rural area in the Rhine valley, specifically around Meistratzheim, France. The image captures a mix of agricultural land with various crop patterns and a more densely built-up town area. Key locations labeled on the map are 'SCINTILLO' and 'SODAR'. A scale bar at the bottom provides a reference for distances up to 1200 meters. In the top right corner, there's an inset map of France with a red crosshair indicating the study area's location in the Alsace region. The interface features a search bar with 'Meistratzheim' entered, a toolbar with icons for zooming and navigating, and a sidebar on the left with links like 'visu 2D', 'CE', 'QUABLES', 'CES', and 'eportail'. The bottom of the screen includes copyright information for IGN and BRGM from 2006, along with a 'Mentions Légales' link.

GeoPortail - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

Les Pages Jaunes ... OK Recherche avancée

ACCEUIL Aller à Meistratzheim OK Recherche avancée

geoPORTAIL visu 2D

TRANSPARENCE Photos aérienne Relief

LIEUX REMARQUABLES Paysages, monuments, infrastructures, villes

INFORMATION Dates des prises de vues

MEMORISER Envoyer à un ami Ajouter aux favoris

+ de SERVICES Accédez au geoportal Services

Rhine valley (Meistratzheim)

SCINTILOMETER FLUX STATION SCINTILOMETER

FRANCE

1 : 24000

iGN INSTITUT GÉOGRAPHIQUE NATIONAL

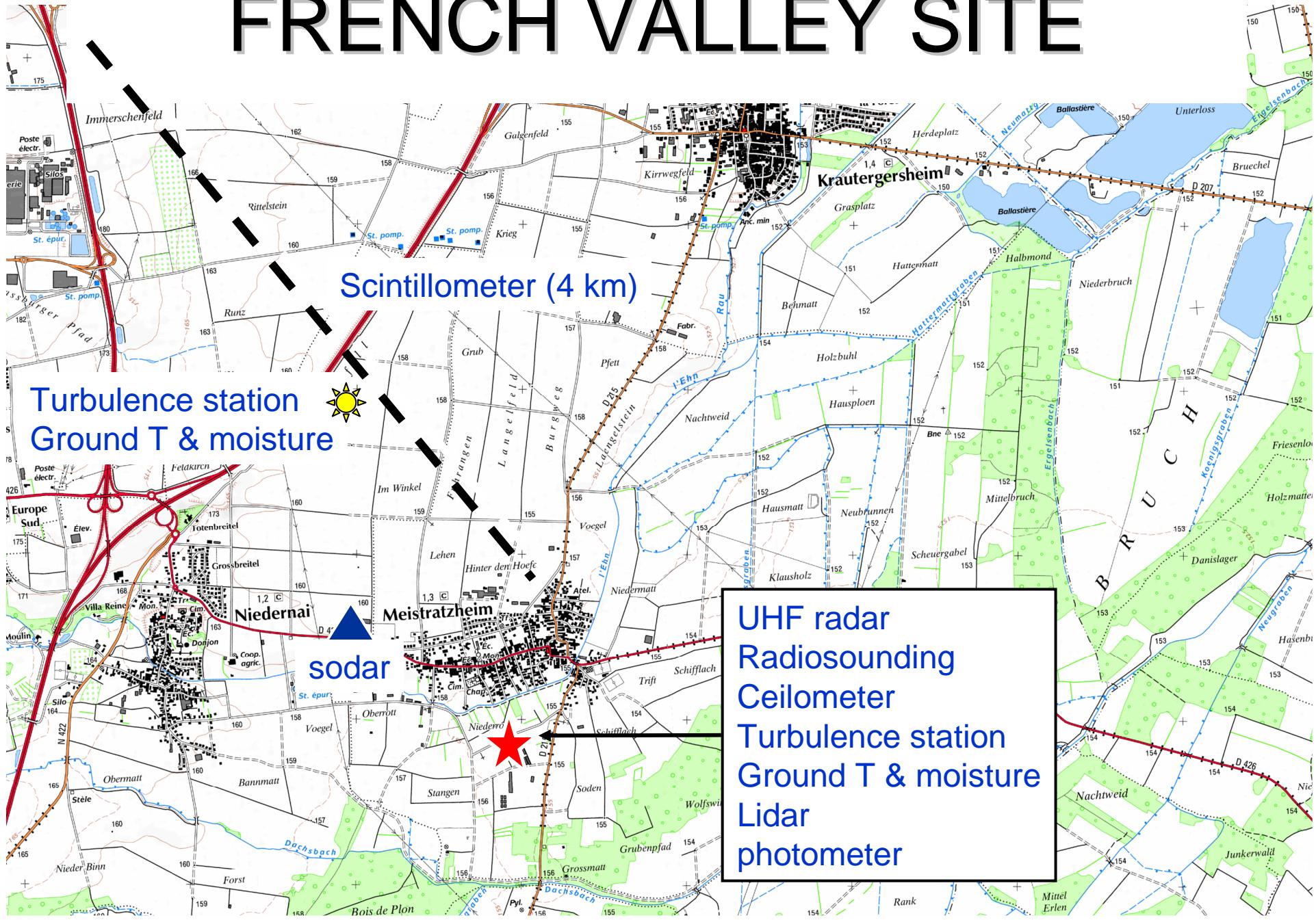
Site compatible avec ... IGN - BRGM 2006 Mentions Légales

Done

Google Earth GéoPortail - Mozilla Firefox

Jeu 1 fév 10:48:25

FRENCH VALLEY SITE



TReSS: Transportable Remote Sensing Station



Active Remote Sensing

Backscatter Mini-Lidar

- 532 nm //
- 532 nm ⊥
- 607 nm (Raman channel)
- 1064 nm



CIMEL Sunphotometer
8 channels: 340, 380, 440, 500,
670, 870, 936, 1020 nm



Pyranometer, Pyrgeometer
Periheliometer



IR Radiometer
9.5-11 μm



CLIMAT: a 4 channels IR
Radiometer: 8-13 μm , 8.2-9.2 μm ,
10.3-11.3 μm , 11.5-12.5 μm

Meteorological variables



Sonic Anemometer



Scatterometer
920nm

In-situ



Optical Particle Counter
 $0,15 < r < 10 \mu\text{m}$



Chemical
analysis
(Ions, C
and dust)

Micro Rain Radar (K Band)

- Characteristics:
 - Radar reflectivity profiles up to 3 km with 100m height resolution
 - DSD spectra calculation
 - Drop fall velocity estimation
- Objectives:
 - Study of the variability of rain within a precipitating system
 - Rain rate comparison between profile and ground-based disdrometer
 - Associated Z-R relationships determination



Rhine valley (Meistratzheim):

- CNRM / 4-M
- RDS station
- UHF + SODAR + Scintillometer
- Surface flux stations (2)
- Soil moisture station (1)
- IPSL
- TReSS (Mini-Lidar + CIMEL + IR radiometers + aerosol sampler)
- Lidar Raman
- GPS station
- CNES
- Microwave radiometer
- LaMP
- K-band radar & disdrometer

→ All instruments operating continuously whenever possible

→ RDS (100 sondes for SOP)
- 6 RDS/days during IOPs (0600-2100 UTC)

- 1 RDS / night on 3 nights for Raman lidar calibration purpose

- 2 RDS/nights during 5 nights (Raman lidar satellite tracking – SIWV)
- 1 RDS at 1200 UTC on non-IOP days

→ Lidars

- Avoid rainy events

→ Aerosol sampling

- 1 filter prior to and after a convective event

- 1 filter / day otherwise

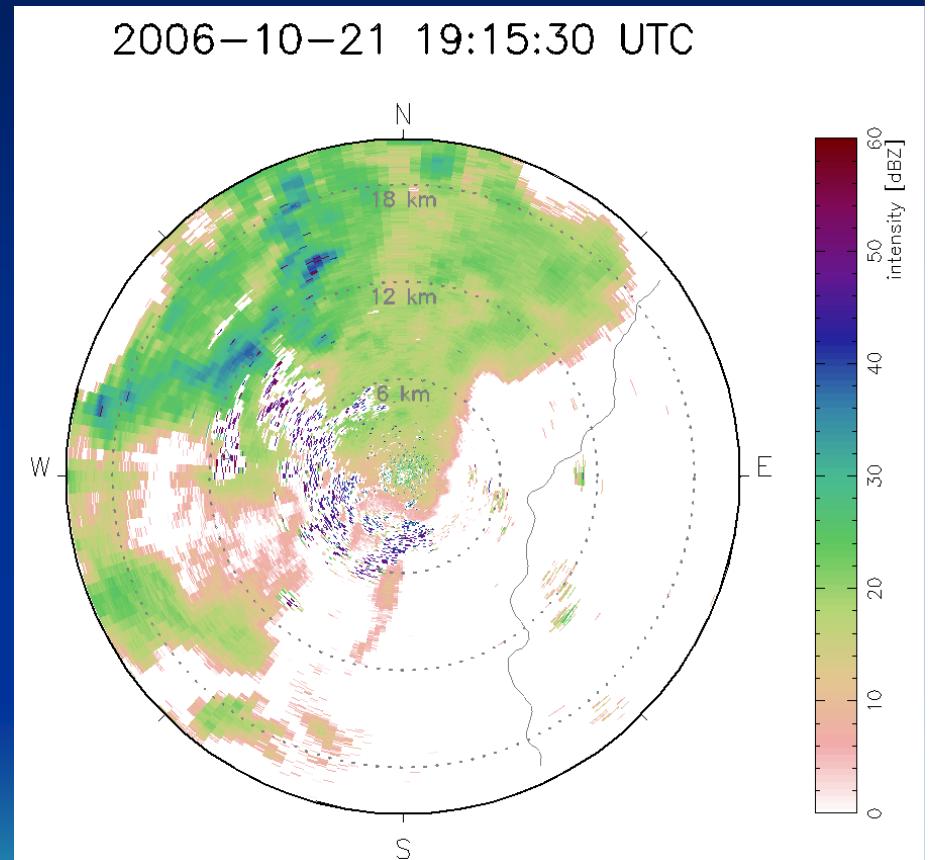


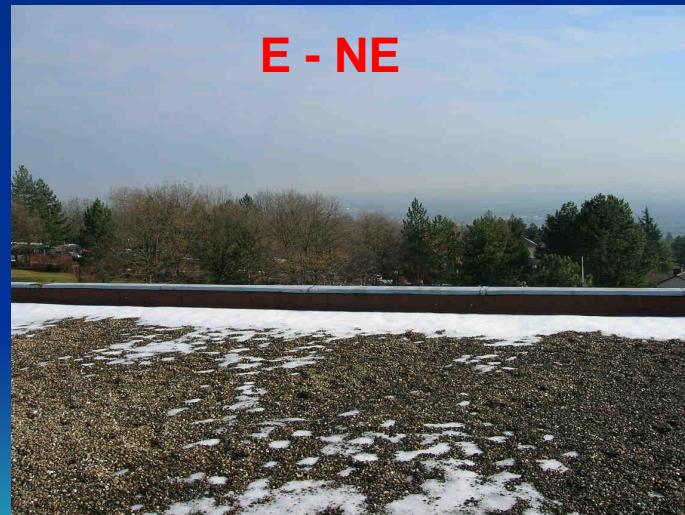
Mountain site (Bischenberg)

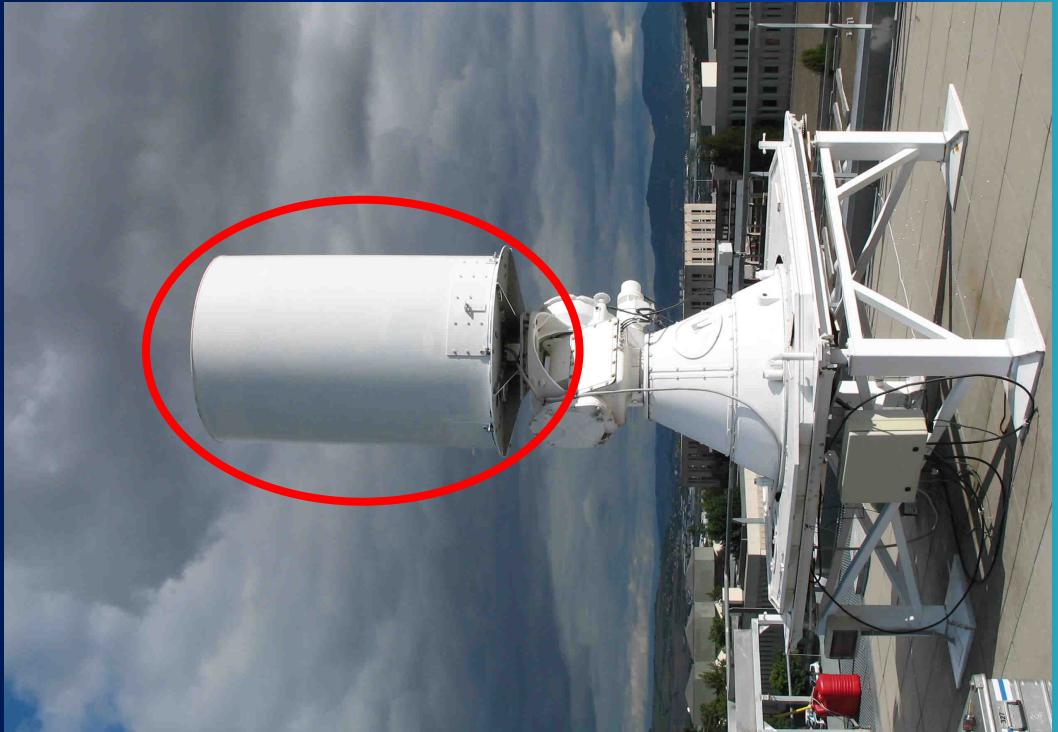
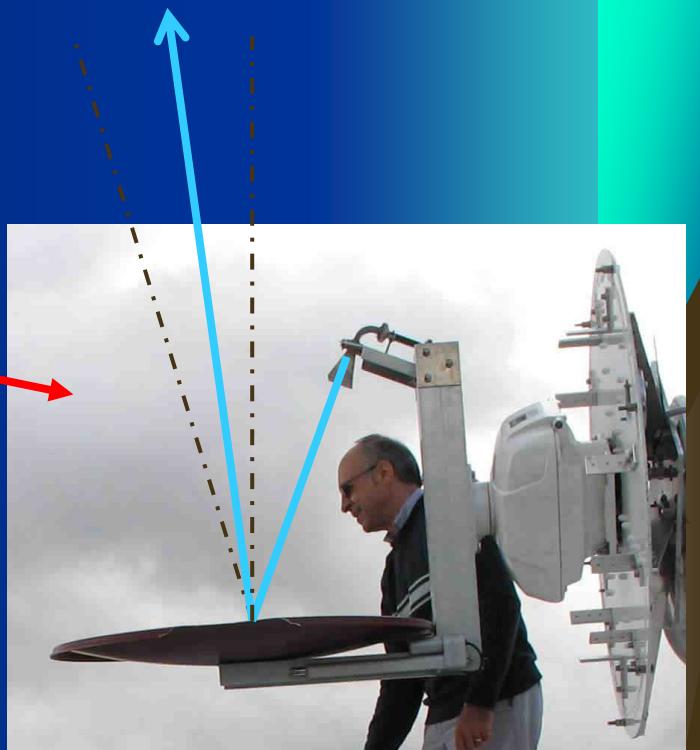


Precipitations Radar (X Band)

- Characteristics:
 - High spatial and temporal resolution (60 m et 30 sec.)
 - Max. range ~20 km
 - Adjustable fixed elevation 2 to 20 °
- Objectives:
 - Follow-up of precipitating systems
 - Localization and quantification of precipitations over a catchment basin
 - Study of the heterogeneity of rain within a precipitating system
 - Rain regime differentiation and Z-R relationship definition







Radar X :

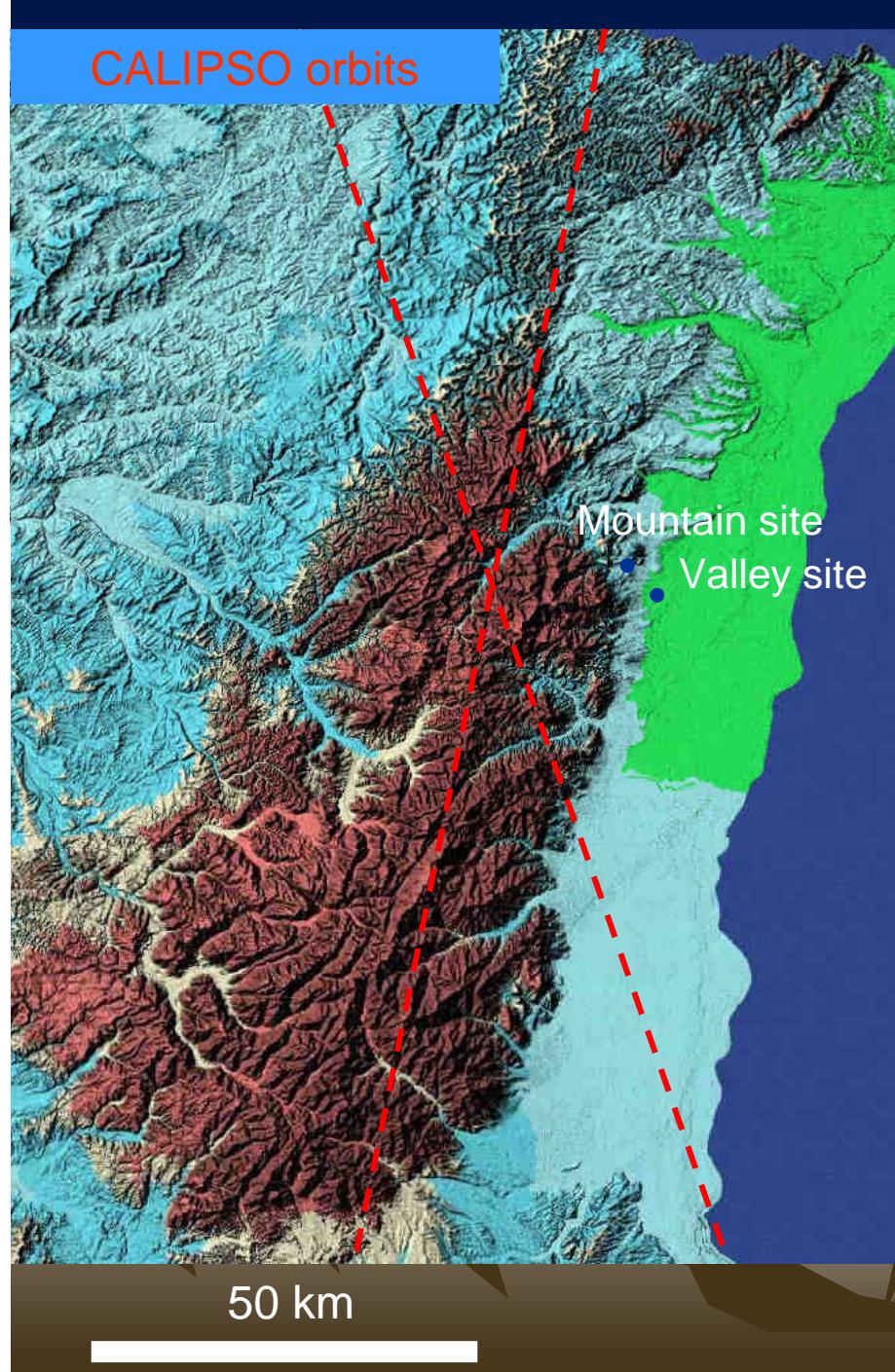
MPI / U. Hamburg Trailer on rooftop



Telescopic mast: up to 8 m

Footprint $\approx 6 \times 5 \text{ m}^2$





IPSL/LSCE « aerosol mobile facility »
→ CALIPSO validation
→ « linking » supersites

