



**CATS**



**GLD360**

# Adding value to lightning

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A French Company created in 1987

A Joint Venture (since 2001)

Météo France 65%



Vaisala Finland 35%  
(GAI 2002)



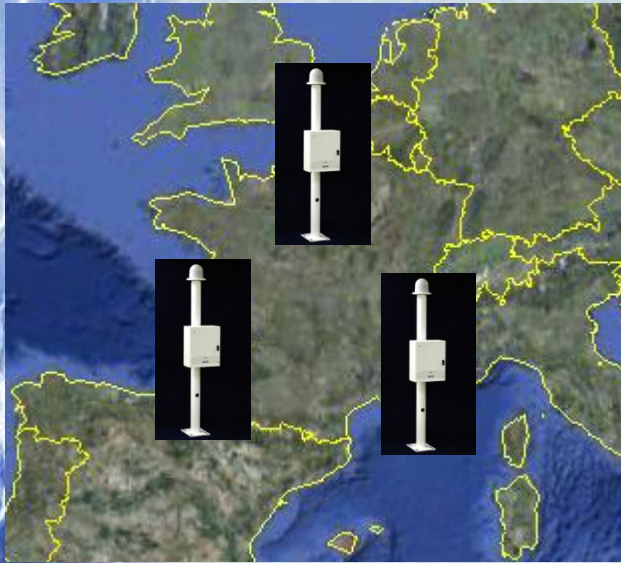
15 engineers  
Based in Pau - France



Data SIO, NOAA, U.S. Navy, NGA, GEBCO  
© 2010 Tele Atlas  
© 2010 Europa Technologies  
US Dept of State Geographer



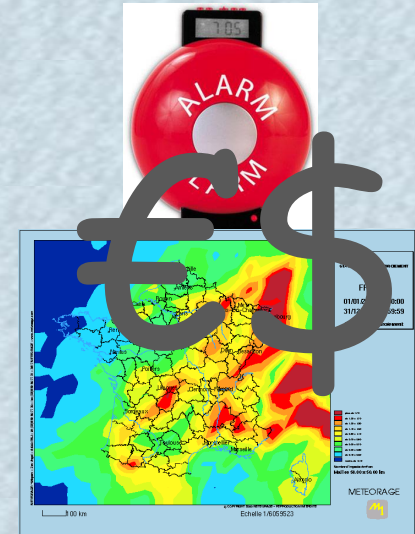
# METEORAGE's skills



Operation of the French LDN

Service Operator in Europe

Development of Lightning OS

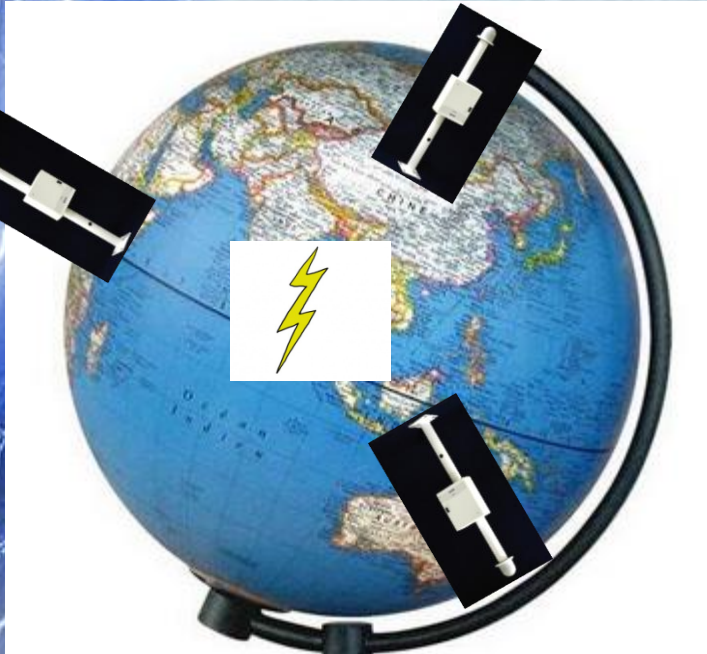


Production, marketing & sales





# What is GLD360 ?



Location



Processing

**GLD360**

Data



Global Lightning Data

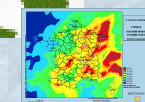
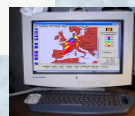


# Tuning the GLD360 for specific needs

## GLD360



VLDN's

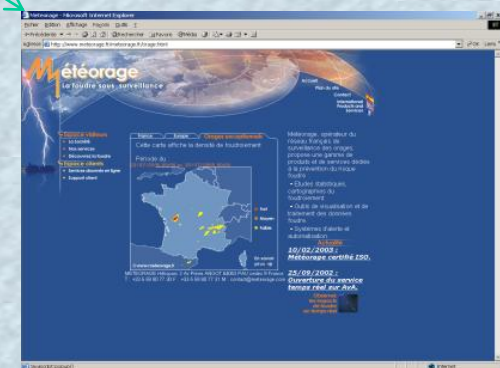
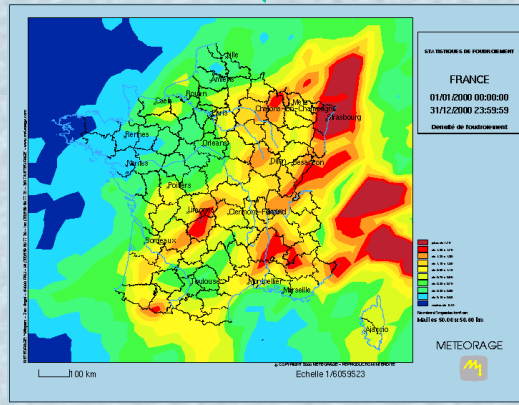
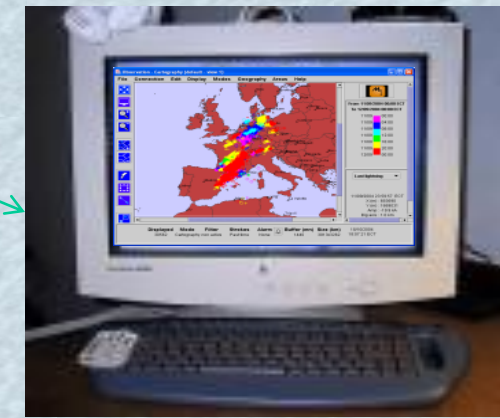


### GLD based products for customers



# What is CATS ?

**CATS** A  
Lightning  
Service  
Generator



## Computer Aided Thunderstorm Services



# GLD+CATS = GLIS

## Global Lightning Information Services

Service Provider

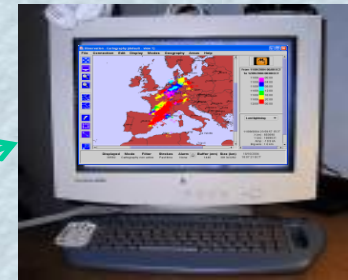
GLD360

+

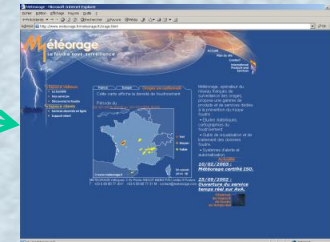
CATS



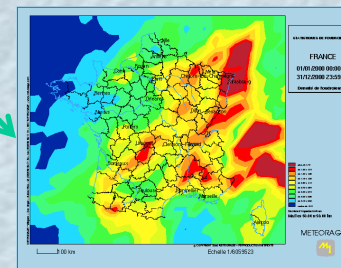
warning



analyze



Web svces



statistics



# A powerful client tool

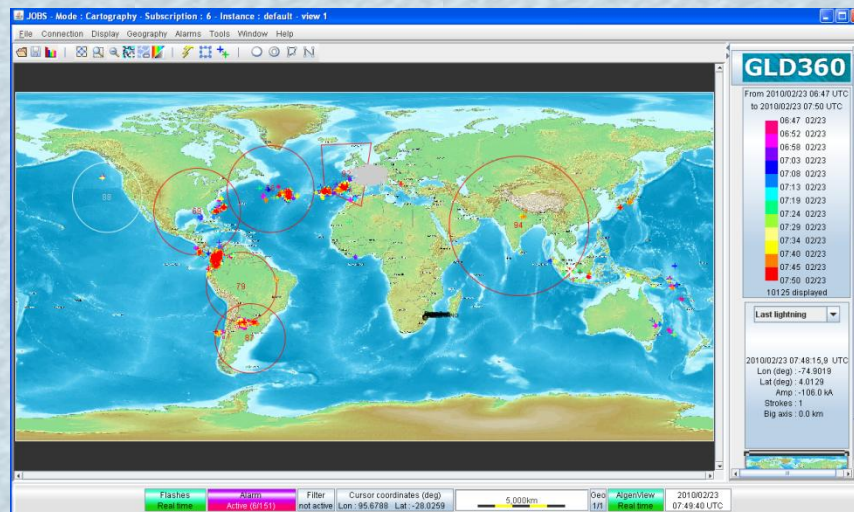
Service Provider

**GLD360**

+

**CATS**

Customer



**JOBS**

CATS made in Europe





# A complete customer solution

Service Provider

GLD360

Customer

CATS

The screenshot displays the CATS software interface. The main window shows a lightning map of North America with a color-coded legend for lightning frequency. A 'LIGHTNING STATISTI' window is open, showing a query for 'dep33.gf' on '01/01/2010 00:00:00' to '31/01/2010 23:59:55'. The results table lists various lightning events with columns for date, time, longitude, latitude, cloud floor, flash ID, and flashes number.

Result area	flashes number
4809 2010/01/02 00:31:20 at 044700 -9 754000 26000 0	0
4810 2010/01/02 00:31:20 at 012500 -9 754700 42000 0	0
4811 2010/01/02 00:31:24 at 011600 -9 754700 14000 0	0
4812 2010/01/02 00:31:13 at 560300 -9 679800 330000 0	0
4813 2010/01/02 00:32:13 at 481000 -9 607000 70000 0	0
4814 2010/01/02 00:32:04 at 592100 -9 186100 24000 0	0
4815 2010/01/02 00:32:04 at 294100 -9 595000 -3000 0	0
4816 2010/01/02 00:32:04 at 296200 -9 595200 -3000 0	0
4817 2010/01/02 00:32:04 at 267000 -9 520100 14000 0	0
4818 2010/01/02 00:32:04 at 156000 -9 520100 -3000 0	0
4819 2010/01/02 00:32:04 at 222900 -9 520400 -9 520400 0	0
4820 2010/01/02 00:32:02 at 222900 -9 520400 -9 520400 0	0
4821 2010/01/02 00:32:02 at 541300 -9 347200 4500 0	0
4822 2010/01/02 00:32:02 at 222900 -9 520400 -9 520400 0	0
4823 2010/01/02 00:32:55 at 876100 -9 609900 12100 0	0
4824 2010/01/02 00:32:55 at 876100 -9 578200 -9 578200 0	0
4825 2010/01/02 00:32:55 at 894700 -9 536700 -3800 0	0
4826 2010/01/02 00:32:55 at 120600 -9 514400 -9 51000 0	0
4827 2010/01/02 00:32:55 at 726000 -9 325200 9000 0	0
4828 2010/01/02 00:33:01 at 426600 -9 113000 30000 0	0
4829 2010/01/02 00:33:14 at 367700 -9 004700 32500 0	0
4830 2010/01/02 00:33:14 at 320900 -9 66900 -7000 0	0
4831 2010/01/02 00:33:43 at 950000 -9 044600 2000 0	0
4832 2010/01/02 00:33:43 at 700100 -9 542700 21000 0	0
4833 2010/01/02 00:33:43 at 060100 -9 774000 14000 0	0

The interface also includes a 'CATS ADMIN' control panel with buttons for Control, Network, CDR, EXP, Alert, OBS, LDB, Minitest, and OBSV. A 'MÉTÉORAGE' logo is visible in the bottom right corner of the software window.



# An operator as a Service provider

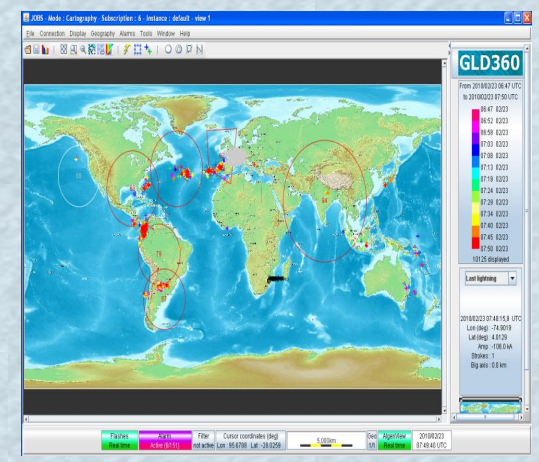
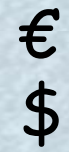
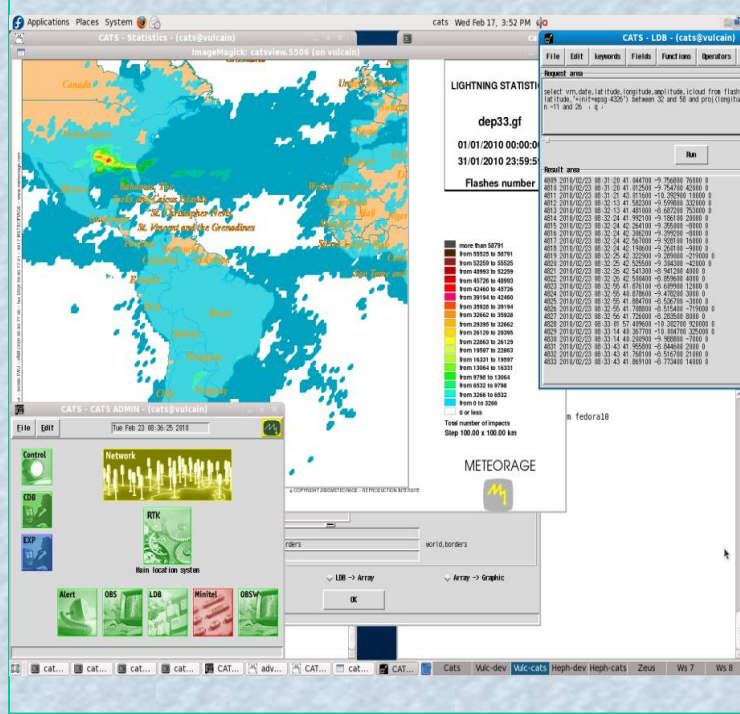
Service Provider

Customer

End Users

GLD360

CATS







# An autonomous customer solution

## Local detection network



## Customer



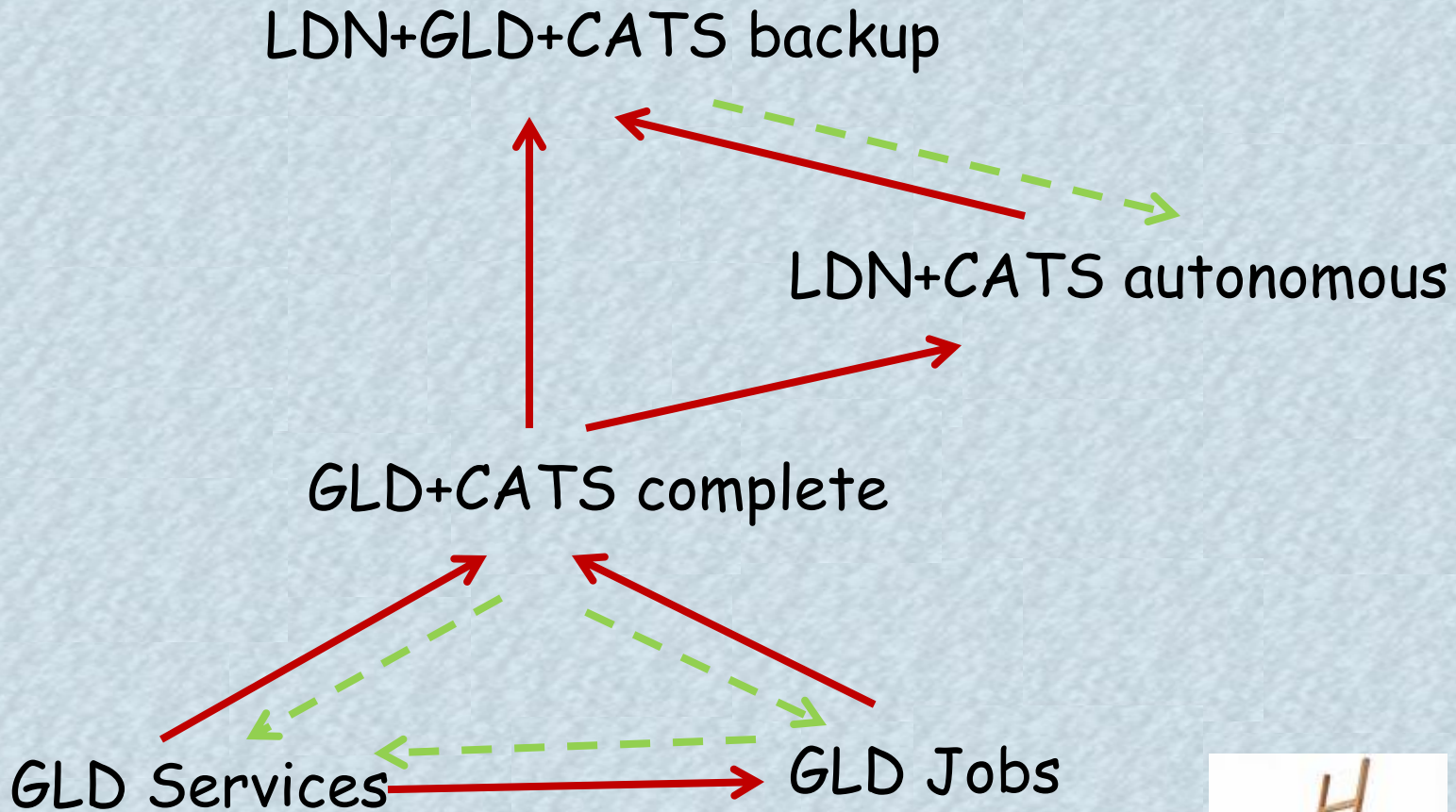
The screenshot displays the CATS software interface. The main window shows a lightning detection map of the Caribbean region with a color-coded intensity scale. A 'LIGHTNING STATISTICS' window is open, showing a table of flash data for the period 01/01/2010 00:00:00 to 31/01/2010 23:59:59. The table includes columns for time, latitude, longitude, amplitude, cloud base, and flash count. A 'CATS - CATS ADMIN' window is also visible, showing a network diagram and various control buttons like 'Control', 'CDB', 'EXP', 'Alert', 'OBS', 'LDB', 'Mintel', and 'OBSV'.

Time	lat (degree)	long (degree)	amplitude (m)	cloud base (m)	flash count
4899	2010/02/23	08:31:20	41.044700	-9.756900	76000 0
4910	2010/02/23	08:31:21	41.012500	-9.754700	42000 0
4911	2010/02/23	08:31:21	43.011600	-10.392900	10000 0
4912	2010/02/23	08:31:21	41.502300	-9.992100	32000 0
4913	2010/02/23	08:31:21	41.011600	-10.392900	10000 0
4914	2010/02/23	08:31:24	41.992100	-9.992100	23000 0
4915	2010/02/23	08:32:24	42.564100	-9.392900	0000 0
4916	2010/02/23	08:32:24	42.564100	-9.392900	0000 0
4917	2010/02/23	08:32:24	42.567000	-9.501100	10000 0
4918	2010/02/23	08:32:24	42.195000	-9.501100	0000 0
4919	2010/02/23	08:32:25	42.322500	-9.501100	0000 0
4920	2010/02/23	08:32:25	42.322500	-9.501100	0000 0
4921	2010/02/23	08:32:25	42.541000	-9.612300	4000 0
4922	2010/02/23	08:32:25	42.541000	-9.612300	4000 0
4923	2010/02/23	08:32:25	41.075100	-9.699900	12000 0
4924	2010/02/23	08:32:55	40.076000	-9.470200	3000 0
4925	2010/02/23	08:32:55	41.064700	-9.527100	0000 0
4926	2010/02/23	08:32:55	41.700000	-9.515400	715000 0
4927	2010/02/23	08:32:56	41.725000	-9.232500	0000 0
4928	2010/02/23	08:33:01	57.499000	-10.302700	92000 0
4929	2010/02/23	08:33:14	46.307700	-10.104700	25000 0
4930	2010/02/23	08:33:14	40.209000	-9.900000	7000 0
4931	2010/02/23	08:33:41	41.992000	-9.844000	2000 0
4932	2010/02/23	08:33:41	41.760100	-9.516700	21000 0
4933	2010/02/23	08:33:41	41.060900	-9.770400	14000 0





# Scalability



Ask for CATS at [contact@meteorage.com](mailto:contact@meteorage.com) or

[www.meteorage.com](http://www.meteorage.com)



## CATS/GLD Technical issues

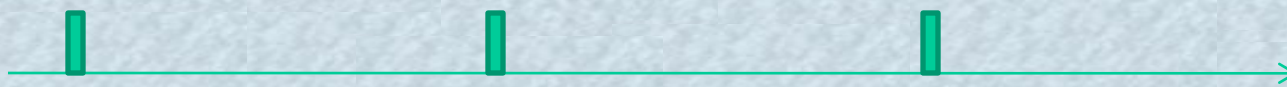
- Treatment speed, 24x7
- Multi-language (Unicode)
- Geographic data (MapServer)
- Geographic projections (LibProj4)
- Time zone
- Link with Synergie & Meteo Factory





# Lightning snapshot concept

Lightning is an event, not a meteorological state  
-Radar or satellite snapshot



-Lightning events



-Lightning pause snapshot or image generation







# CATS Development & Support Team



Charlotte

**CATS**



Hervé

Jean-Marie

**JOBS**

[support@meteorage.com](mailto:support@meteorage.com)



➤ Thank you

Merci Gracías Grazie

Danke Obrigado

Спасибо 谢谢您 Dankie

감사합니다 Kiitos Gràcies

σε ευχαριστώ

Terima kasih ありがとうございます

Hvala ti Tak Bedankt Takk Tack

Dziękuję Asante Děkuji ti

Teşekkür ederim Cảm ơn bạn

Tānan Paldies Ačiū Köszönöm