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AGILE_data_release_note_v1.0.txt

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***** AGILE Public Data Release Note v1.0 *****

User's README

AGILE Data Center (ADC), 10-06-2009

Data in v1.0 public release were processed with the AGILE "Standard Analysis" OB pipeline, which cleans the archive by eliminating data corresponding to repointing slews and occasional losses of fine-pointing attitude. The OB pipeline software version used is: 2_15.2_16_15 corresponding to reprocessed (r1) data set delivered to successful proponents of the AGILE AO1 Guest Observer Program.

***** Data delivery details: *****

AGILE Cycle-1 observations were structured as a series of 29 Observation Blocks (OB), each corresponding to a unique identifying number.

The schedule can be found at:

http://agile.asdc.asi.it/current_pointing.html

(click on the red text: "Click here to show previous pointings").

This first set of public GRID data corresponds to the first 17 AGILE observations of Cycle-1 following the first year AGILE Baseline Pointing Plan and including 2 Target of Opportunities (ToO) and 1 Partial Repointing:

	OB #	OB Name	RA_PNT	DEC_PNT	OB start date	OB end date	Mean OB Exp.	Notes
1	4900	Cygnus Field 1	20 26 47.9	+53 17 59.9	2007-12-01 12:00	2007-12-05 09:00	7863569	Baseline
2	4910	Cygnus Field 1 b<0	21 53 59.9	+38 00 00.0	2007-12-05 09:00	2007-12-15 12:00	17534267	Partial Rep.
3	4920	Cygnus Field 1 Ext.	22 15 35.9	+37 53 59.9	2007-12-15 12:00	2007-12-16 12:00	1818760	ToO
4	5010	Virgo Field 1	11 58 00.0	-00 24 00.0	2007-12-16 12:00	2008-01-08 12:00	26087354	Baseline
5	5100	Vela Field	10 45 12.0	-63 47 59.9	2008-01-08 12:00	2008-02-01 12:00	33770516	Baseline
6	5200	South Gal Pole	04 06 23.9	-38 06 00.0	2008-02-01 12:00	2008-02-09 09:00	12842897	Baseline
7	5210	ToO MKN 421	16 48 47.9	+50 30 00.0	2008-02-09 09:00	2008-02-12 12:00	6068356	ToO
8	5220	South Gal Pole Res.	04 27 11.9	-35 47 59.9	2008-02-12 12:00	2008-02-14 12:00	3550767	Baseline
9	5300	Musca Field	13 51 36.0	-73 54 00.0	2008-02-14 12:00	2008-03-01 12:00	33480692	Baseline
10	5400	Gal. Cent. I OB	17 04 47.9	-51 23 59.9	2008-03-01 12:00	2008-03-16 12:00	25219658	Baseline
11	5450	Gal. Cent. II OB	18 14 00.0	-28 36 00.0	2008-03-16 12:00	2008-03-30 12:00	18890136	Baseline
12	5500	Anti-Center	07 00 00.0	+21 41 59.9	2008-03-30 12:00	2008-04-05 12:00	9156017	Baseline
13	5510	SA Raster Scan 23d	07 19 59.9	+28 36 00.0	2008-04-05 12:00	2008-04-07 12:00	3433405	Baseline
14	5520	SA Raster Scan 28d	07 30 23.9	+35 42 00.0	2008-04-07 12:00	2008-04-08 12:00	624562	Baseline
15	5530	Anti Center Res.	07 28 23.9	+20 48 00.0	2008-04-08 12:00	2008-04-10 12:00	3495799	Baseline
16	5600	Vulpecula Field	19 36 24.0	+20 36 00.0	2008-04-10 12:00	2008-04-30 12:00	32487373	Baseline
17	5700	North Gal Pole	16 53 36.0	+71 00 00.0	2008-04-30 12:00	2008-05-10 12:00	20943837	Baseline

From the ASDC Multi Mission Interactive Archive <http://www.asdc.asi.it/mmia/> the query results for the AGILE Mission show an interactive table with all OB data which include:

- either the searched source position within 30 degrees from the mean position of the OB pointing RA_PNT, DEC_PNT (J2000)
- or the specified time-range
- or the selected parameters (OB numbers).

In the interactive table the Mean OB Effective Exposure (in cm2 s) is also indicated.

For each OB, the "Public access" link makes it possible to download the following files:

- an OB event file with suffix: EVT__GO
and its index file with suffix: EVT__GO.index
- an auxiliary OB file with suffix: LOG__GO
including relevant payload information
and its index file with suffix: LOG__GO.index
- count, exposure and diffuse background OB maps with suffix:
COUNTS__GO
EXP__GO
GAS__GO
- a GIF file showing the images of both the OB exposure and count maps.
For illustrative purpose only, the count map image includes automatic
candidate detections in the FoV obtained with XIMAGE software.

The event files in each OB data-packet include all gamma-ray events
in the GRID Field of View (FoV) using the AGILE event filter
called F4, optimized to select high confidence gamma-ray events within a
FoV of 40 degrees.

The OB count exposure and diffuse background maps are centered on the
mean OB pointing position and were automatically generated with the following parameters:

```
mdim=80.0
mres=0.25
lonpole=180
emin=100
emax=50000
index=-2.1
fovrad=40
albrad=80
y_tol=0.5
roll_tol=360.0
earth_tol=3.0
keepmono=NO
phasecode=18
projection=ARC
step=4
```

To produce your own maps and run likelihood tasks please download
and install the public AGILE software available at:
<http://agile.asdc.asi.it/public/>
and follow the User Manual included in the GO_BUILD_GRID_3.0.tgz file.

Technical Note: if you choose to download data files with the default option
"Automatically unpack the data using a Java applet"
then each file name in the corresponding .index file must be changed
removing the .gz suffix before running map generator tasks.

Enjoy!