

Gaia Photometric Science Alerts

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People

- We have benefitted from significant extra input, development work and support from:
 - Nadia Blagorodnova (IoA, PhD), BP/RP, environment, transient discovery
 - Sergey Koposov (IoA), hardware configurations, database, software, calibrations etc etc
 - Thomas Wevers (Nijmegen, PhD), short-timescale variability
 - Lukasz Wyrzykowski (Warsaw, ex-IoA), alert filtering, transient discovery
 - Nic Walton, Gerry Gilmore
- We also acknowledge support of all observers and eyeballers involved in the verification programme, including
 - Thomas Wevers, Peter Jonker, Manuel Torres, Sjoert van Velzen, Morgan Fraser, Heather Campbell, Anna Hourihane, Patricia Whitelock (and team), Gisella Clementini (and team), Giuseppe Altavilla, Massimo Turatto, Lina Tomasella (and team), Chris Copperwheat, Liverpool Telescope, Elme Breedt, Lukasz Wyrzykowski's team, Michel Dennefeld, Uli Kolb +pirate, Liam Hardy, Andrzej Pigulski, and all co-I's on our numerous proposals.

Status summary

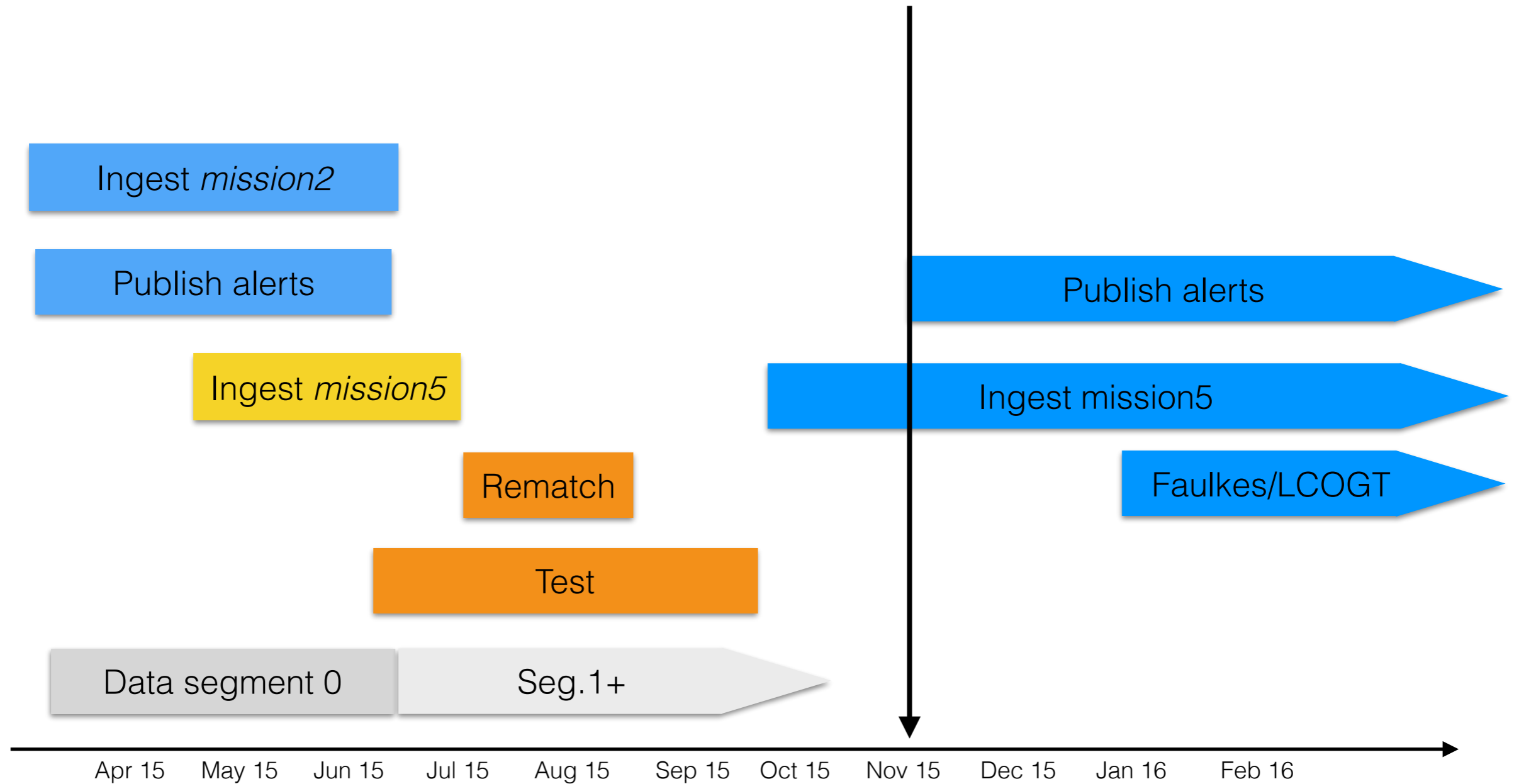
- AlertPipe is resting between data segments
- Publication of new alerts is suspended
- All data of segment 0 have been processed
- No data from segment 1 have been processed
- Rematching has been completed

Segment 0: Statistics

- 297 IDT runs processed (204.. 517)
- ~16 billion transits ingested
- ~52 million alert candidates
- 275 published alerts

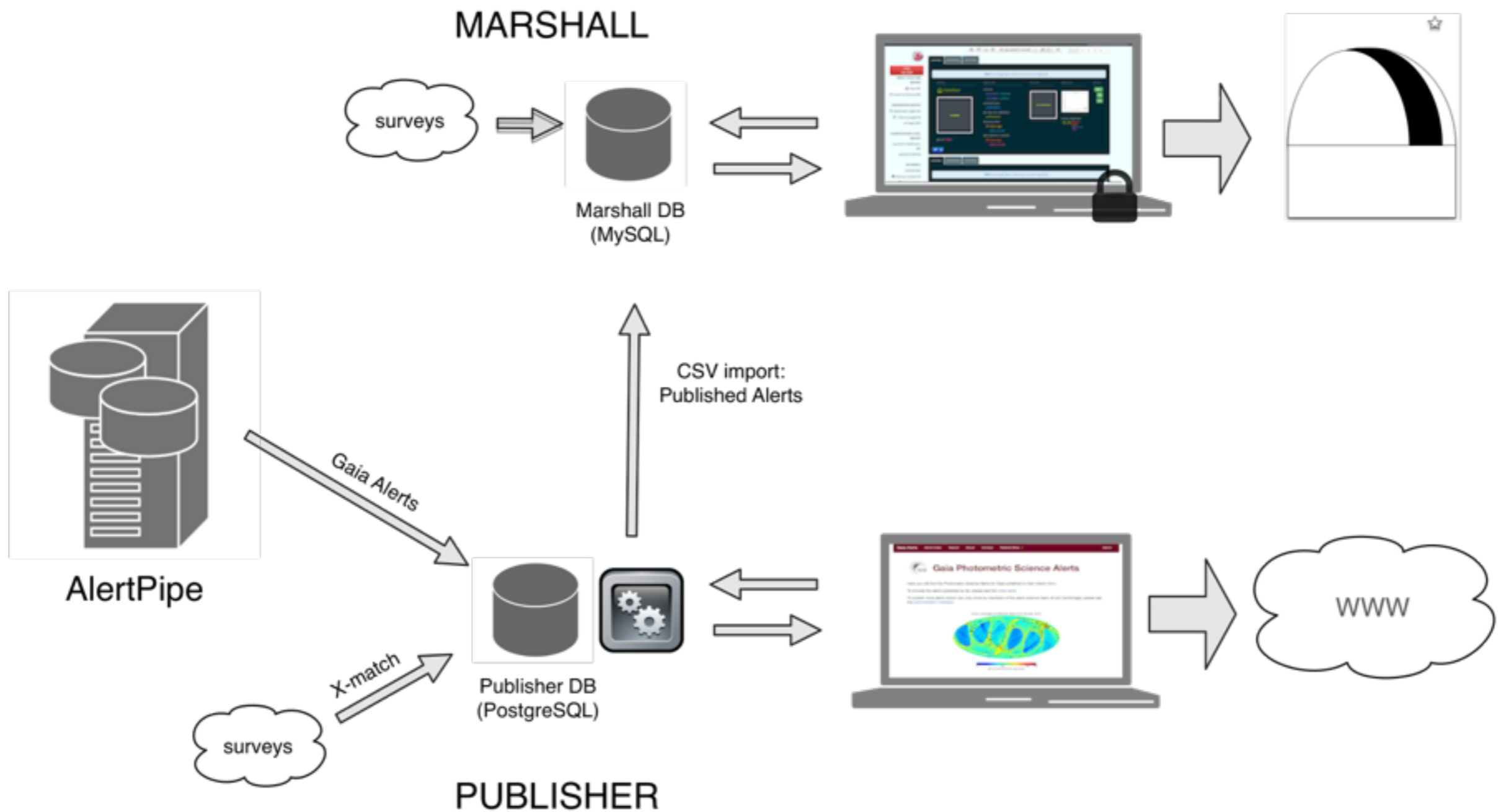
Planned operations (plan A)

Go Live: mid-Nov'15



Mar 15

GSA Web Applications



GSA Web Applications: Publisher

- ▶ Takes over the publishing tasks of the AlertPipe findings
- ▶ Fully developed by the GSA group
- ▶ Operational since Nov. 2014 at:

<http://gsaweb.ast.cam.ac.uk/alerts/>

- with basic publishing functionalities
- alerts published in CSV, RSS and HTML formats



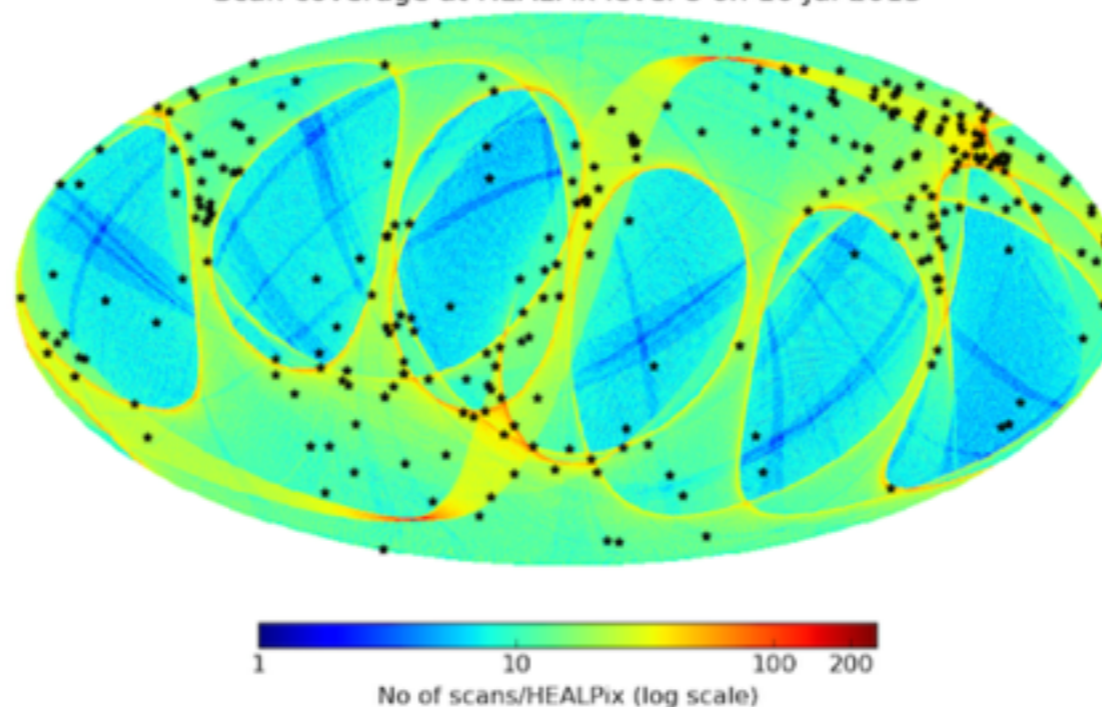
Gaia Photometric Science Alerts

Here you will find the Photometric Science Alerts for Gaia published in their interim form.

To browse the alerts published so far, please see the [index table](#).

To publish more alerts (which can only be done by members of the alerts science-team at IoA Cambridge), please see the [administration interface](#).

Scan coverage at HEALPix level 8 on 10 Jul 2015



Index to Gaia Photometric Alerts

These are all the alerts raised to date. You might wish to view or download these as a [table in CSV format](#).

See [here](#) for an explanation of the columns.

Show entries

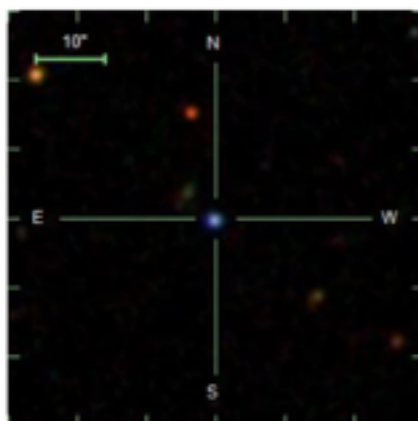
Search:

Name	Observed	RA (deg.)	Dec. (deg.)	Mag.	Historic mag.	Historic scatter	Class	Published	Comment
Gaia15agm	2015-06-01 14:51:25	358.98623	-43.72412	17.35			unknown	2015-06-09 11:27:39	candidate SN
Gaia15agl	2015-06-01 20:34:37	337.79327	-37.82735	18.71			unknown	2015-06-09 11:27:39	candidate SN
Gaia15agk	2015-06-03 02:38:28	337.70660	-43.04732	18.80			unknown	2015-06-09 11:27:39	candidate SN
Gaia15agj	2015-06-03 05:29:29	147.74682	37.96674	18.49			unknown	2015-06-09 11:27:39	candidate SN
Gaia15agi	2015-01-24 09:32:33	43.08181	60.57638	18.97			unknown	2015-06-03 15:16:18	Galactic plane red transient, brightened from 20 to 18 mag in 100days
Gaia15agh	2015-05-25 01:24:24	181.02133	14.06805	17.58			unknown	2015-06-02 15:06:52	candidate SN in spiral starforming SDSS galaxy (z=0.043)
Gaia15agg	2015-05-29 15:41:03	64.10105	-28.49464	18.96			unknown	2015-06-02 13:22:16	Candidate SN on edge of DSS galaxy
Gaia15agf	2015-05-29 08:17:25	330.62236	-20.32945	18.54			unknown	2015-06-02 13:19:12	Candidate young and blue SN on the edge of a DSS galaxy
Gaia15age	2015-05-29 22:00:29	83.48209	-20.78890	16.96			unknown	2015-06-02 00:15:29	aka CSS101214:053356-204720 : CV candidate
Gaia15agd	2015-05-29 07:24:33	171.57245	28.36723	18.42			unknown	2015-06-02 00:09:38	SN candidate in low surface brightness starburst galaxy at z=0.03

Showing 1 to 10 of 273 entries

Previous [1](#) [2](#) [3](#) [4](#) [5](#) ... [28](#) Next

Gaia15aan*



RA - DEC
 241.44997 24.09196
Alerting date
 2014-12-19 09:14:21
Julian date
 2457010.88
Alert magnitude
 13.03
Historic magnitude
 19.41
Historic StdDev
 0.12
Class
 CV
Publication date
 Jan. 24, 2015, 3:01 p.m.

Other surveys detections

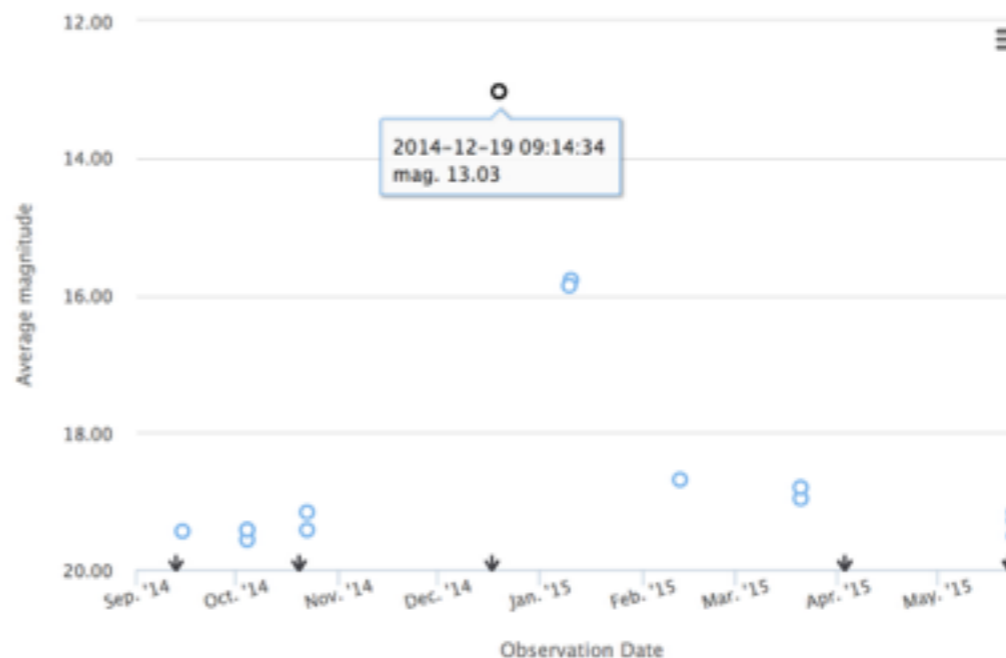
ASASSN-14mo; TCP J16054809+2405338

Comments

Very blue object - huge outburst. Reported as ASASSN-14mo. Possible AM CVn, TCP J16054809+2405338

ATels

7177

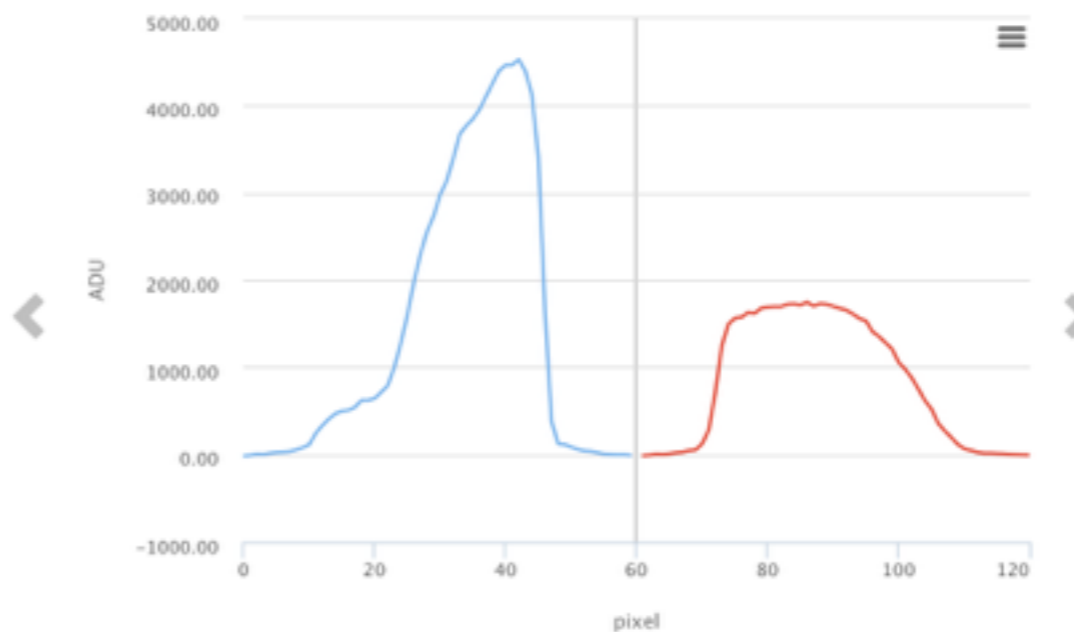


○ Detection ▼ Scans

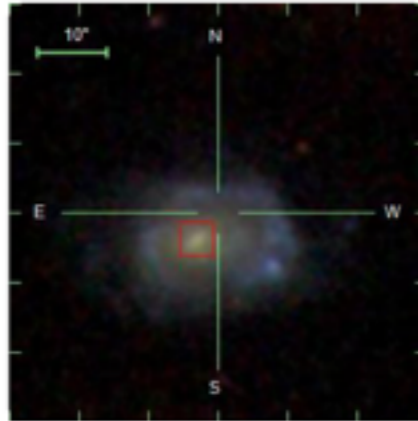
Get lightcurve data

Click and scroll down and select one row in the table below to display the corresponding spectrum.

Date	JD	Average Mag.
2014-12-19 09:14:21	2457010.88497	12.98
2015-01-09 23:06:15	2457032.46267	15.76
2015-01-10 03:19:55	2457032.63883	15.79
2015-02-12 02:55:41	2457065.622	18.66
2015-03-20 14:06:03	2457102.08753	18.79
2015-03-20 15:52:37	2457102.16154	18.87



Gaia15aaj



RA - DEC
 237.77419 34.43214
Alerting date
 2015-01-10 21:10:13
Julian date
 2457033.38
Alert magnitude
 16.67
Historic magnitude
 None
Historic StdDev
 None
Class
 SN Ia
Publication date
 Jan. 23, 2015, 3:44 p.m.

Other surveys detections

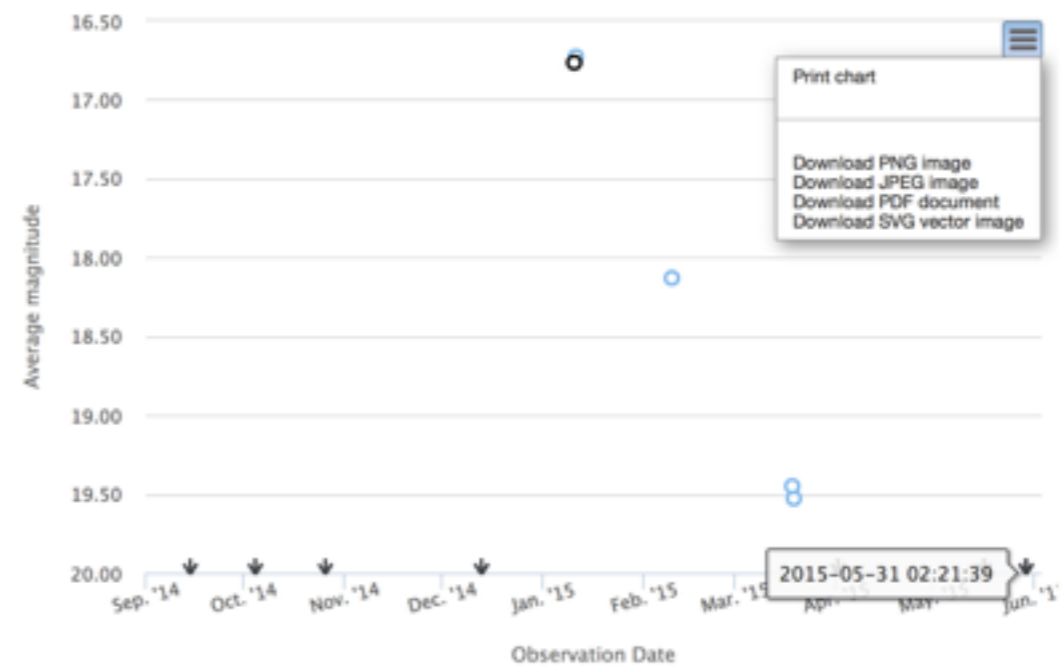
ASASSN-15ae

Comments

ASSNSN-15ae, confirmed SN Ia. 4arcsec from core of starforming SDSS galaxy.

ATels

6870; 6897; 6899

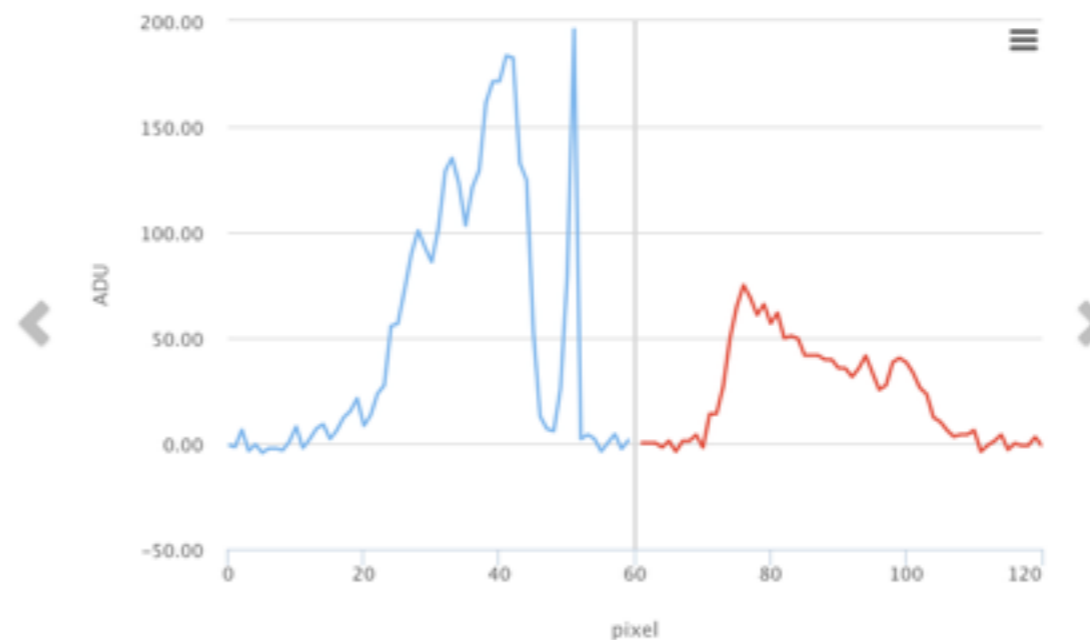


○ Detection ▾ Scans

Get lightcurve data

Click and scroll down and select one row in the table below to display the corresponding spectrum.

Date	JD	Average Mag.
2015-01-10 21:10:11	2457033.38207	16.72
2015-01-10 22:56:45	2457033.45608	16.68
2015-02-09 14:50:56	2457063.1187	18.1



GSA Web Applications: Marshall

The screenshot displays the GSA Marshall web application interface. At the top, there is a navigation bar with 'help', 'marshall', and a search box labeled 'search by object or pi'. Below this is a toolbar with various icons and a dropdown menu for 'date added to marshall'. The main content area is divided into two panels, each showing details for a different object.

Left Panel (Gaia15aem):

- Identity:** Gaia15aem
- Object Info:** ra & dec: 15:04:30.75 +21:59:16.6 [226.12814 21.98797]; predicted type: unknown; abs peak mag: -18.25; pre-disc non-detection: unknown; discovery date: 33 days ago (2015-03-25); date added to marshall: 2 days ago (2015-04-24); PI: no pi set; gaia id: 48277
- Spectral Classification:** classification: Ia; classification survey: gaia; classification date: 2015-04-27 (+55min); classification phase: +30d; redshift: 0.0500; distance: 222.29 Mpc
- Host Info:** exact sdss location, sdss nearest object
- Lightcurve:** latest magnitude: 18.48 (Cala G-band 2015-03-25 +33d)
- Actions:** 1 x ATel, share, print

Right Panel (Gaia15acz):

- Identity:** Gaia15acz
- Object Info:** ra & dec: 09:11:01.62 +34:44:27.2 [137.75575 34.74089]
- Spectral Classification:** classification: II
- Host Info:** exact sdss location, sdss nearest object
- Lightcurve:** latest magnitude: 18.48 (Cala G-band 2015-03-25 +33d)
- Actions:** share, print

Both panels feature a 'latest comment' section at the top, with an alert: 'Alert not enough data to determine a current magnitude'. The left panel's comment is from 13 hours ago, and the right panel's is from 13 days ago.

GSA Web Applications: Marshall

- ▶ Username and password is required. Granted by request
gaiamarshall@ast.cam.ac.uk
- ▶ This app helps to get an agreed classification for the alerts

Sync resources in observing terms

~ 30 registered users to help classifying alerts

Astronomers' follow-up around the world

