

SNEWS Outreach Task Group Progress Report

my choice
for new
SNEWS logo



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Convener TG8_Outreach
SNEWS 2021 Collaboration Meeting
May 12, 2021

SNEWS Outreach Taskgroup

Session Summary

1. *Outreach Taskgroup Progress Report.* (B. Pointon)
2. *AAVSO Contributions to SNEWS.* (George Silvis, AAVSO)
3. *Do amateurs stand a chance to see the SBO?* (Heinz-Bernd Eggenstein, AAVSO)


SNEWS Outreach Taskgroup

Task List

1. Website redesign**.
2. Amateur astronomer community engagement**.
3. Fire Drill co-ordination*.
4. Social Media.
5. SNEWS Mobile App.
6. Supernova component for IceCube masterclass.
7. Planetarium shows.
8. New logo and swag.
9. Pre-fab “Press Kits”, news releases, SNEWS reps.
10. Repository of resources for giving public lectures.


1. Website Redesign

The old standby



- What is SNEWS?
- SNEWS News
- Background Information
- Getting a SNEWS Alert
- Amateur Astronomers
- Mailing Lists
- SNEWS Working Group Info
- Meetings
- Related Links
- History of Astronomy
- The Name Game
- Contact People

SNEWS: SuperNova Early Warning System



SNEWS is upgrading! For more info:

[SNEWS 2.0 Workshop](#): Supernova Neutrinos in the Multi-Messenger Era, Sudbury, June 14-17, 2019

World-wide, several detectors currently running or nearing completion are sensitive to a core-collapse supernova neutrino signal in the Milky Way. The neutrino burst signal emerges promptly from a supernova's core, whereas it may take hours for the first photons to be visible. Therefore, the detection of the neutrino burst from the next Galactic supernova can provide an early warning for astronomers. Requiring a coincident signal from several detectors will provide the astronomical community with a very high confidence early warning of the supernova's occurrence. In addition, a neutrino burst alert may be able to serve as a trigger for detectors that are not able to trigger on a supernova signal by themselves, allowing extra data to be saved.

The SNEWS project involves an international collaboration of experimenters representing current supernova-neutrino-sensitive detectors. The goal of SNEWS is to provide the astronomical community with a prompt alert of the occurrence of a Galactic core-collapse event. We are also engaged in cooperative inter-experiment work, such as downtime coordination, to optimize global sensitivity to a core-collapse supernova signal.

SNEWS has been running in automated mode since 2005. Currently, seven neutrino experiments are involved: [Super-K](#) (Japan), [LVD](#) (Italy), [Ice Cube](#) (South Pole), [KamLAND](#) (Japan), [Borexino](#) (Italy) [Daya Bay](#) (China), and [HALO](#) (Canada). Anyone wishing to receive a prompt SNEWS alert may sign up for the [mailing list](#). No nearby core collapses have occurred since SNEWS started running, but we are ready for the next one.

Is Betelgeuse going to blow up soon? We'd love that, but probably not! If it does though, we'll be ready.

1. Website Redesign

Current status

- previous work (Justin V.) produced a “barebones boilerplate” template on <https://github.com/SNEWS2/snews2-web> and some design principles
- **new effort** for website **redesign** and deployment
 - Dan M. is setting up infrastructure at Purdue
 - Dan’s students Jessica Townsend and Katie O’Brien created **mockups** using fresh, new layout and design features
 - BCIT computing students, Richard Le, Timothy Wu, Alex Park and Erik Golke will be working intensively for four weeks on **backend** of website.
- Dedicated SNEWS Slack channel **#snews2-webpage**

1. Website Redesign

Current status (cont'd)

Several decisions made on platform and hosting (thanks Dan M.)

- **Platform** – Wordpress
- **Hosting site** – Purdue,
- **Name** “Supernova Early Warning System”
- **Site** www.purdue.edu/science/snews
- **Domain name** “snews2.org”
 - estimated cost ~\$40 /yr
 - compare with snews.org ~\$3500 + yearly fee
 - will try to capture other names, such as <http://supernovaalert.org/> and galacticssupernova.com and point to snews2.org
- **logo?**

1. Website Redesign

Key principles

- **modern design** and **graphics**
- **usability** – “Don’t make me think”, “each click is a mindless, unambiguous choice”, “Get rid of half the words on each page...” Krug’s
- website **content**
 - general information
 - quick references
 - training materials
 - **immediate** SNEWS alert data contact info
 - press kit
 - **overview** of “ways to be involved”
 - **access** to SNEWS-related materials (papers, videos, lectures)
- **easy** to add content – Wordpress
- **mobile** friendly

1. Website Redesign

Brainstorming ideas

- website should **automatically respond** to SNEWS alerts and firedrills
 - goes into alert mode –**alerts, popups**
 - easy access to alert information in the event
- world **map or globe** with **pins** showing neutrino experiment locations
 - may also show observer, telescope locations
 - may also show real-time daylight, weather
 - perhaps allow additions for alert subscribers

1. Website Redesign

New ideas for themes and layouts (Jessica T. and Katie O'B)



1. Website Redesign

New ideas for themes and layouts

Latest News



Lorem Ipsum

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[READ MORE →](#)



Lorem Ipsum

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed...

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Lorem Ipsum

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1. Website Redesign

New ideas for themes and layouts

Lorem Ipsum

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GET INVOLVED



- world map or globe with pins showing neutrino experiment locations

1. Website Redesign

Current status:

BCIT students are building website backend.

- “just about **finished with the initial layout of most pages** and are now working to get more of the SNEWS content and different affiliate links to different organizations ...”
- “created some **more content** for various pages”
- “setting up **email campaigns** and subscription services for ... the core SNEWS alert ...



1. Website Redesign

Action Items

1. check/relocate old **content**, create/add new content
 - AAVSO info
 - experiment description pages
 - public and press contact info
 - observatory description pages
 - GRANDMA info
 - press kits
 - quick reference (pro and am)
 - training manuals (with AAVSO)
 - recheck and curate all links
2. revamp **alert signup** page and process
3. **language** and localization support
4. website **SNEWS alert and firedrill mode**
5. check **mobile** friendliness

2. Amateur astronomer community engagement

From the SNEWS 2.0 whitepaper: <https://arxiv.org/abs/2011.00035>

7. Amateur Astronomer Engagement

The next galactic core-collapse supernova will be a once-in-a-lifetime event. Amateur astronomers will play a vital role in identifying and observing the optical component of the explosion in real time when it appears in the sky. Because SNEWS is designed to provide an early warning of the appearance of such an explosion, **the interface between SNEWS and the astronomical community and particularly amateur astronomers, is critically important**. We aim to reinforce these connections and provide the community with information and resources to ensure they are ready to receive SNEWS alerts and participate in the global effort to spot the optical signal. This outreach effort will be guided by three broad thrusts, as described below: **awareness**, **preparedness**, and **follow-up**.

2. Amateur astronomer community engagement

From the SNEWS 2.0 whitepaper: <https://arxiv.org/abs/2011.00035>

Thrust 3: Follow-up

When the day finally arrives, the initial SNEWS alert may contain little or no pointing information. It will therefore be up to the professional and amateur astronomy communities to identify and report the precise right ascension and declination of the supernova as it becomes visible. Time will be of the essence; it is imperative that clear and simple reporting mechanisms exist and that observers are aware of them.

SNEWS will develop and distribute training materials so that alert subscribers can familiarize themselves

2. Amateur astronomer community engagement

Project ideas

1. **Raise awareness** of SNEWS alert and coming galactic SN.
2. Help **optimize SNEWS** alert for needs of amateur astronomers.
3. **SNEWS alert** follow-up observing campaign.
4. Participate in SNEWS **fire drills**
5. On-going observations of SN **candidate stars**.
6. Other ...

2. Amateur astronomer community engagement

Engagement with AAVSO

AAVSO (**American Association of Variable Star Observers**) www.aavso.org

- **venerable** (founded 1911)
- highly skilled and **dedicated members**
 - involved in many pro-am collaborations
- have ongoing **campaigns** to observe and analyze variable stars
 - visual and detailed photometric data for light curves
 - distributed robotic telescope network (AAVSONet),
 - software tools and observer manuals

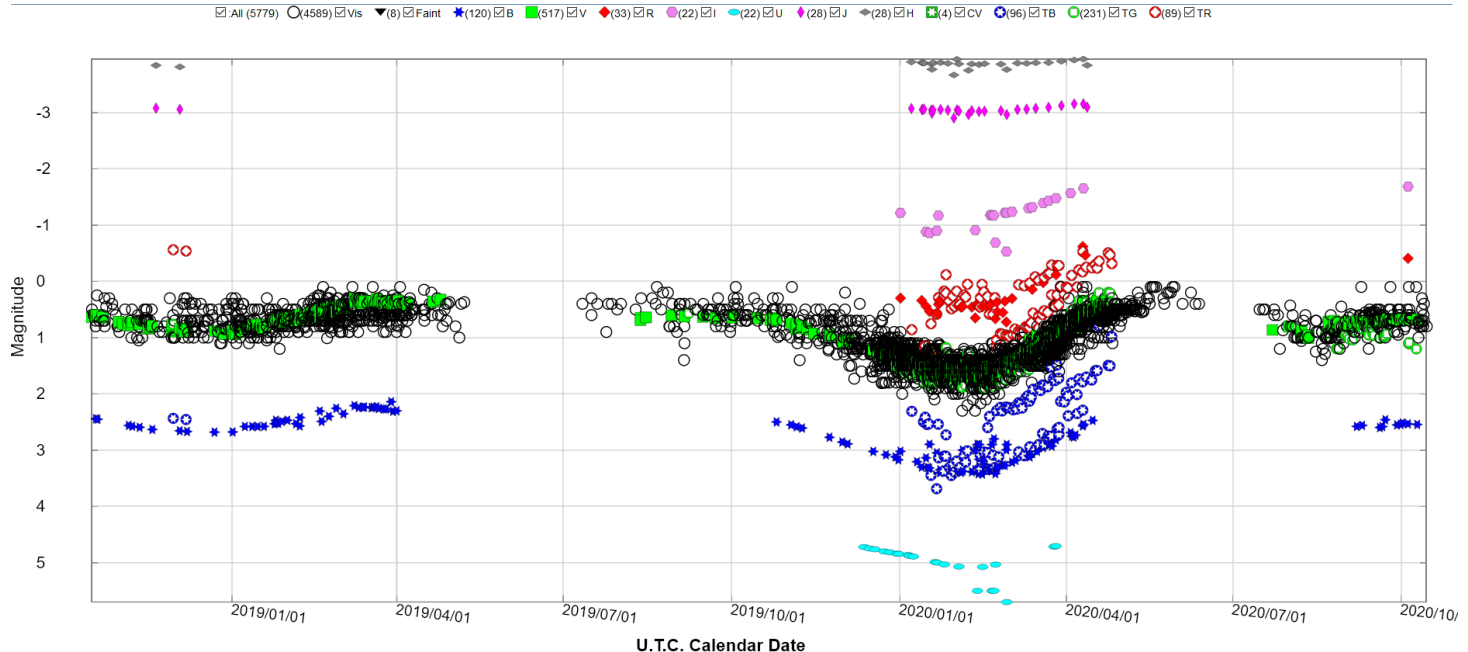
AAVSO-SNEWS Meetings

- Initial meeting with Stella Kafka, AAVSO CEO– **Nov 20, 2021**
- Follow-up and brainstorming – **Dec 16, 2020**
- General technical meeting – **Jan 6, 2021**
- Meeting to discuss firedrills (with Erin O’S), candidate target list **Mar 31, 2021**

Dedicate SNEWS Slack channel **#aavso-collaboration**

2. Amateur astronomer community engagement

e.g. Betelgeuse light curves from database.



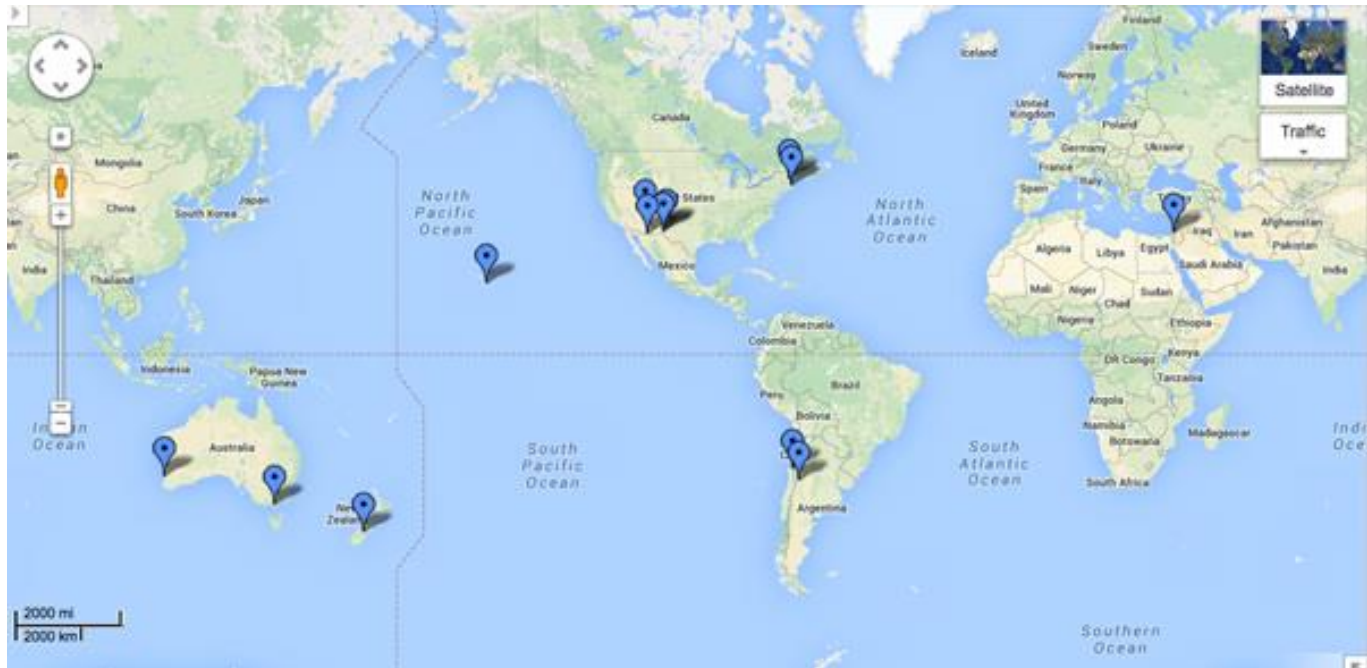
2. Amateur astronomer community engagement

AAVSO Observing Manuals

- Observing Manuals
 - Visual Observing Manual
 - CCD Photometry Guide
 - DSLR Observing Manual
 - Exoplanet Observing Guide
 - PEP Observer's Guide
 - Solar Observing Guide
 - AAVSO Guide to Getting Started in Spectroscopy

2. Amateur astronomer community engagement

AAVSONet locations



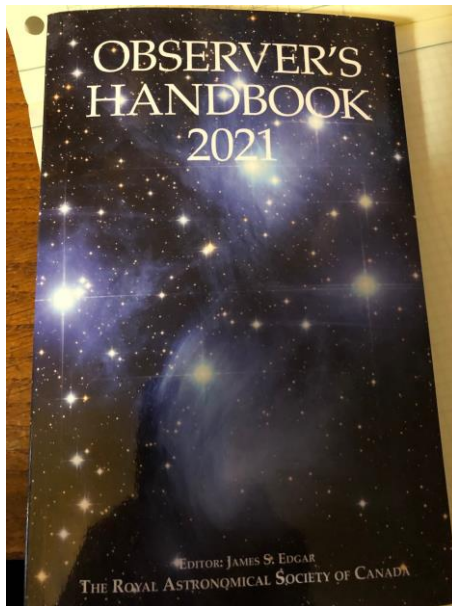
2. Amateur astronomer community engagement

Engagement with AAVSO - Progress

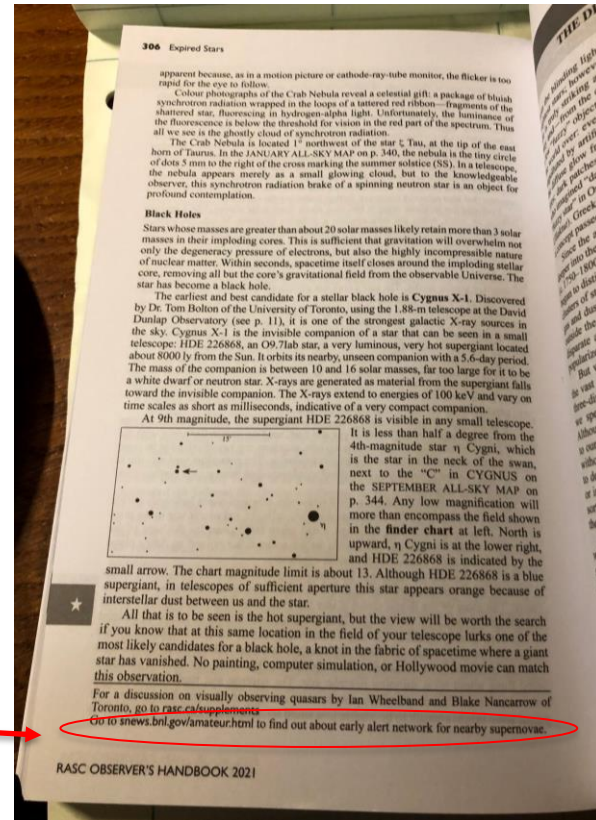
- New opportunities for **outreach within AAVSO**
 - Dan M. will give talk **June 12, 2021 for AAVSO webinar series**
 - SNEWS members invited to be on hand for discussions
 - invite involvement from more AAVSO members
- Working towards a **firedrill** with AAVSO (Erin O'S)
- Working towards more sophisticated **alert follow-up** with AAVSO
 - collab with GRANDMA
 - alert-based insertion of SN candidate star observation schedule
- Great progress in adding SN candidates for **on-going observations** (see George's talk)
 - list of RSGs has been curated, list of WR stars was provided

2. Amateur astronomer community engagement

RASC - Small notice added to RASC Observers Handbook 2021



“Go to snews.bnl.gov/amateur.html to find out about the early alert network for nearby supernovae”.



SNEWS Outreach Taskgroup

Summary

1. Website redesign underway.
2. New collaboration launched with AAVSO
3. Firedrill co-ordination work initiated with AAVSO.

SNEWS Outreach Taskgroup

Summary

4. Other items to work on
 - Social Media
 - SNEWS Mobile App
 - Supernova component for IceCube masterclass
 - Planetarium shows
 - New logo and swag
 - Pre-fab “Press Kits”, news releases, SNEWS reps
 - Repository of resources for giving public lectures