Lynx Newsletter

Volume 1, Number 2 (June 2017)

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Visit our website!

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About Lynx

Lynx, formerly X-ray Surveyor, is an x-ray telescope planned for NASA's 2020 Astrophysics Large Mission Concept Decadal Survey. NASA's 2013 Enduring Quests, Daring Visions Astrophysics Roadmap identified a new X-ray surveyor as vital to the advancement of our knowledge of astrophysics and astronomy. Lynx will be the successor to Chandra, one of NASA's great observatories. It will take lessons learned from Chandra's rich heritage and combine it with innovative new technologies for orders of magnitude higher sensitivity and added capability.

The Lynx Study Office is a partnership between Marshall Space Flight Center and the Smithsonian Astronomical Observatory. The Lynx team includes participants from multiple NASA centers, other government facilities, and academic institutions in regions from around the world.

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Community Involvement

For Lynx to be highly ranked in the 2020 Decadal Survey, it needs input from the entire astronomical community. New ideas, fresh perspectives, and objective outside critiques are important to keep the project moving forward. Feel free to forward this newsletter to those who might be interested in being a part of this project. With your help, we may see Lynx launch in the 2030s!

Have you mentioned the Lynx mission in a paper or presentation? We want to know! If you feel comfortable sharing, please upload this information to our public <u>Google Drive</u>, or email <u>lynxtelescope@gmail.com</u>.

You can also join the discussion at one of our weekly STDT meetings:

Weekly STDT Meetings
Wednesdays at 1:30 Central

Telecon: 844-467-4685 Passcode: 313600#

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Lynx Industry Technical Interchange Meeting (TIM) Outcomes

The Lynx Industry TIM was held in Huntsville, AL on May 22-23, 2017. Members of the Lynx instrument and optics working groups (IWG and OWG) met with industry representatives to discuss the current technologies being developed for the concept study and how industry partners can contribute. Marshall Space Flight Center's Advanced Concept Office (ACO) also attended and met with industry partners to discuss spacecraft-related capabilities. After the meetings, the OWG and IWG met with ACO to discuss the instrument interfaces. Industry representatives were eager to view the Cooperative Agreement Notice which is currently open to the community.

Presentations from the working groups describing the current state of potential Lynx technologies can be found here.

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Cooperative Agreement Notice for Lynx Mission Concept Study

The following solicitation has been posted in Open status on NSPIRES:

Solicitation Number: NNM17626588A

Solicitation Title: Cooperative Agreement Notice (CAN) 2017 – 2020 Astrophysics Decadal Large Mission

Concept Lynx X-Ray Observatory Studies at NASA George C. Marshall Space Flight Center

Release Date: 05/31/2017 Close Date: 06/30/2017

Award Notification Date: 07/15/2017

For additional details please view the actual posting to view the announcement document.

As posted in the presolicitation:

The CAN will seek partnerships with United States commercial businesses who will cooperatively share in the cost of the study.

Contracting Office Address:

NASA/George C. Marshall Space Flight Center, Office of Procurement Marshall Space Flight Center, Alabama 35812 United States

Primary Point of Contact.:

Kathryn C. Christy, Contracting Officer kathy.c.christy@nasa.gov Phone: 2569617443

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Seminar Update

Lynx has a monthly science webinar series. Previous webinars have included subjects such as active galactic nuclei, quasars, exoplanets, and SBH feedback. Take a look at some of our past <u>webinars</u>. If you are interested in presenting, you can sign up <u>here</u>, and we will kindly consider your topic for a future talk.

Upcoming webinars:

Title: TBA

Date: June 21, 2017 at 11:30am Central

John ZuHone, Smithsonian Astrophysical Observatory

X-ray Surveyor and the Baryon Cycle

Date: TBA

Juna Kollmeier, Carnegie Institution for Science

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Calendar Updates

You can view our public Google <u>calendar</u>! Additionally, Gmail users can add events directly from this calendar to their own.

Upcoming Events:

July STDT FTF

This July 2017, the Lynx STDT will hold a meeting to announce the finalized science case for the Lynx concept mission. The goal for this meeting is to determine the milestones for the different interfaces between the instruments, optics, and spacecraft. Like all STDT meetings, the July FTF will be open to the public. Keep an eye on our <u>calendar</u> for later details!

SPIE Optics+Photonics

August 6-10, 2017 in San Diego, California

SPIE Optics + Photonics 2017, the meeting where the latest research in optical engineering and applications, nanotechnology, sustainable energy, organic photonics, and astronomical instrumentation is presented. Four conferences and multiple application areas in one event.

Join your peers at the largest multidisciplinary optical sciences meeting in North America. For more information, see the conference website.

Lynx will give multiple talks and will hold a Technical Event geared towards discussing the Technology Roadmap.

Technology Roadmap for the Lynx X-Ray Mission

Date: Tuesday 8 August 2017 Time: 8:00 PM - 10:00 PM

Session Moderator: Jessica A. Gaskin, NASA Marshall Space Flight Ctr. (USA)

The NASA Astrophysics Division has commissioned four studies to be presented to the next Decadal Survey of Astronomy and Astrophysics as potential flagship missions for the next decade. One of these potential missions is the Lynx X-ray Mission. This will be an open forum/discussion regarding technologies for the optics and science instruments for the Lynx Mission. There will be an overview talk – featured speaker to be determined. After the talk, we will conduct a collaborative work space to discuss these technologies within the context of a technology Roadmap, with open discussion.

From Chandra to Lynx: Taking the Sharpest X-ray Vision Fainter and Farther August 8 – 10, 2017 in Cambridge, Massachusetts

Since 1999, the Chandra X-ray Observatory has provided unprecedented high-spatial resolution X-ray vision of the invisible universe. Together with its high-resolution X-ray spectroscopic capabilities, Chandra continues breakthrough studies of our universe from the distant supermassive black holes and the large-scale environments around galaxy clusters to stars and objects in our solar system. Lynx, formerly known as the X-ray Surveyor, is one of the large strategic mission concepts identified in the 2013 NASA Astrophysics Roadmap ("Enduring Quests, Daring Visions"). Lynx is the first future X-ray mission concept planning to match the spatial-resolution, and thus be a true successor to Chandra. The high-resolution X-ray imaging with a tremendous increase in sensitivity will allow Lynx to pursue multiple quests deeper into the invisible X-ray universe. This workshop seeks to leverage Chandra's legacy and maximize its impact on the development of

Lynx science and design objectives. Lynx's Chandra-like spatial resolution, together with a tremendous increase in sensitivity will allow multiple quests deeper into the invisible X-ray universe. For more information, see General Meeting Info.

Important Dates

June 14, 2017 Presentation abstract submission closes
June 28, 2017 Poster abstract submission closes

June 28, 2017 Registration closes

High Energy Astrophysics Division 16th Meeting

August 20-24, 2017 in Sun Valley, Idaho

Experience the 2017 Solar Eclipse! For more information, see the meeting website.

SPIE Mirror Technology Days 2017

November 14-16, 2017 in Redondo Beach, California

Tech Days annually summarizes the USA Government's investment strategies and activities in developing technology for any application (such as telescopes, imaging systems, seeker/trackers, high-energy laser systems, solar energy, etc.) which requires optical components. Tech Days covers technology investment efforts in: optical materials; substrate design & manufacture; optical fabrication and metrology technology; optical coatings; wavefront sensing and control via adaptive optics; nano-technology imaging technologies; etc.

Read the Call for Presentations - Title submissions are due 14 July, 2017.

Visit the workshop's website for more information.

Recent Past Events:

Pause and Learn (PaL)

The Lynx Study Office participated in a NASA-HQ organized Pause and Learn this month. Goddard Space Flight Center defines a PaL:

A Pause and Learn (PaL) session is a time for reflecting among fellow team members. A PaL session tends to focus on recent events. It is simple to implement and requires a small time commitment. Usually a facilitator from outside the team is brought in to guide the discussion over a period of one or two hours. The primary benefit of the session is the participants' own learning and reflection. Reports are not required and the environment is one of non-attribution.

Presentations from the meeting will be posted. A link will be added to the Lynx website once it is available.

Spring 2017 STDT Face to Face Meeting

April 6-7, 2017 at The Westin in Huntsville, AL

Attendees at this meeting discussed the science behind the mission and reported the status of different working groups. Presentations can be viewed here.

View all of our past events.

To subscribe or unsubscribe, to leave feedback, list events, or to ask questions, please e-mail lynxtelescope@gmail.com.