

HEROIC: A REALTIME OBSERVATORY COORDINATION

CURTIS MCCULLY

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Las Cumbres Observatory

HER@IC

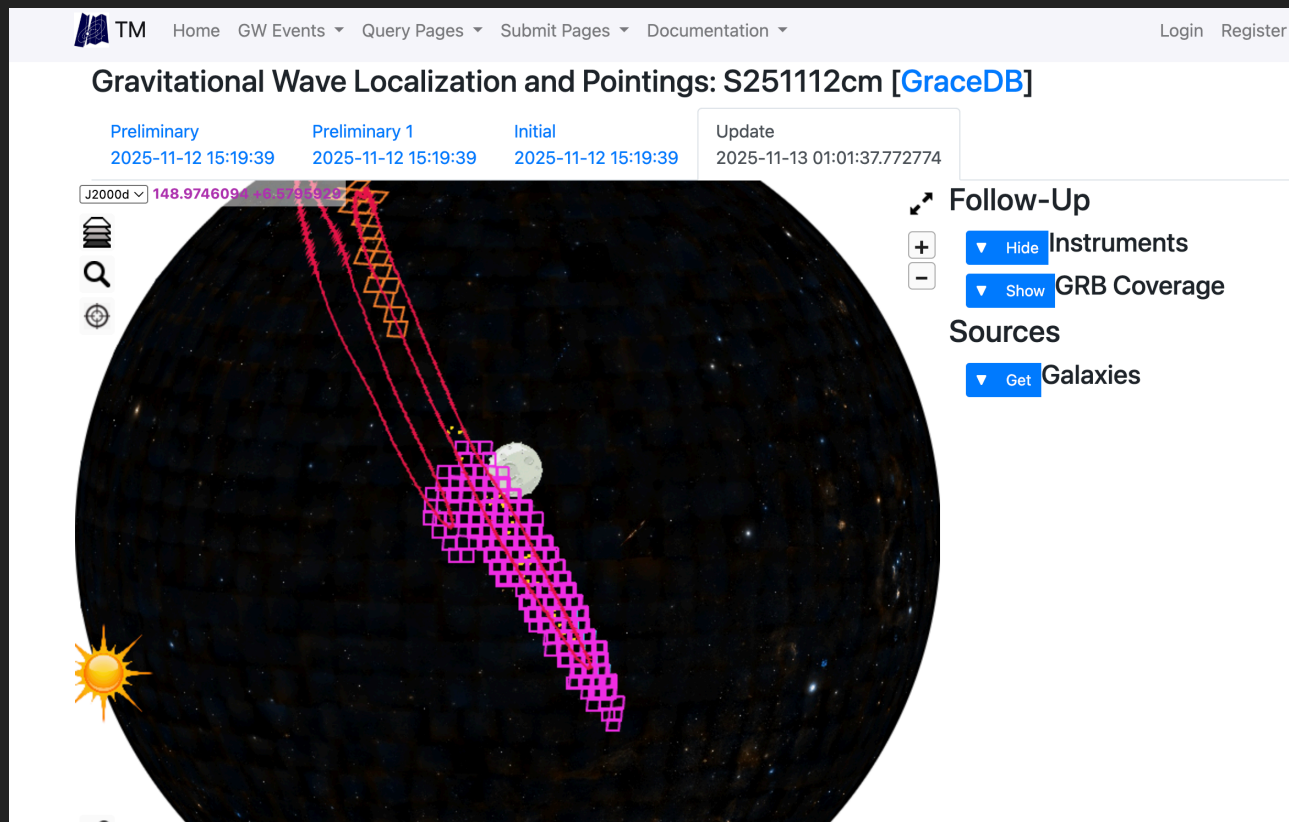
**HOP-ENABLED REALTIME OBSERVATORY
INFORMATION AND COORDINATION**



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TEXT

TREASURE MAP IS NEW AND IMPROVED



HEROIC GREW OUT OF THE TREASURE MAP OBSERVATORY STATUS SPREADSHEET

Observatory Statuses

The COVID-19 pandemic is forcing closure of many astronomical facilities around the world. Below is a list of the status of various observatories, contributed by the community.

We encourage members of the astronomical community to add any information they may have to this list.

The list can be edited, or added to, [here](#). **We ask that you only change the status of an Observatory if you know FOR A FACT that the listed status is incorrect.**

The 'Status' should be interpreted as providing the most useful information to Astronomers regarding *whether the observatory is performing observations*, and should only reflect whether the site is 'Open' to people/visitors insofar as this may affect the capability to perform observations. Please feel free to use the 'Notes' column liberally.

Any concerns or questions about the information listed here can be directed to: a.tohuvavohu@mail.utoronto.ca

Thank you to Jamison Burke for starting the spreadsheet.

Observatory/Site name	Status	Notes
AAT	Open	Observations recommenced on May 12th.
AGILE	Closed	Nominal observations up to Jan 17, 2024. Observations ended on Jan 18, 2024
ALMA	Closed	
ANTARES	Open	
APEX	Closed	The planned shutdown from December 2019 is continuing
APO (3.5m, Sloan 2.5m Telescop	Reduced	MLG Update 03/23: "By order of the governor, APO will be ceasing operations starting Tuesday morning." Changed status to closed. MLG Update 03/20: Observatory staff say "We are still currently operating night time operations. Daytime staff is essential personnel only on site." I have changed the status from "closed" to "open". Update 06/06: Observtory is on reduced staff (25%) but both 2.5m and 3.5m are now open for night operations.
Arecibo	Open	Last two weeks of March: Radar observations suspended. Passive radio observations during daytime hours only. Starting March 30: Previously scheduled observations restarted; remote and absentee only (except for radar). Closed for visitors.
ASKAP	Open	

GOALS OF HEROIC

- ▶ HEROIC is designed to be a one-stop shop for *ground-based* facility statuses
- ▶ *HEROIC* was funded by the NSF to build a prototype
 - ▶ We are integrating LCO and NOIRLab facilities under the current grant
- ▶ The goal is to be able to understand which telescopes and instruments are available to observe rapidly evolving targets, e.g. kilonovae

HEROIC AND ACROSS: SIMILAR GOALS BUT DIFFERENT STARTING POINTS

ACROSS

The Astrophysics Cross-Observatory Science Support (ACROSS) center coordinates NASA resources to help facilitate the new era of astronomy.

[Access the ACROSS Web Tool \(beta\)](#)

[Learn More](#)

Filters

Visibility:

Airmass:

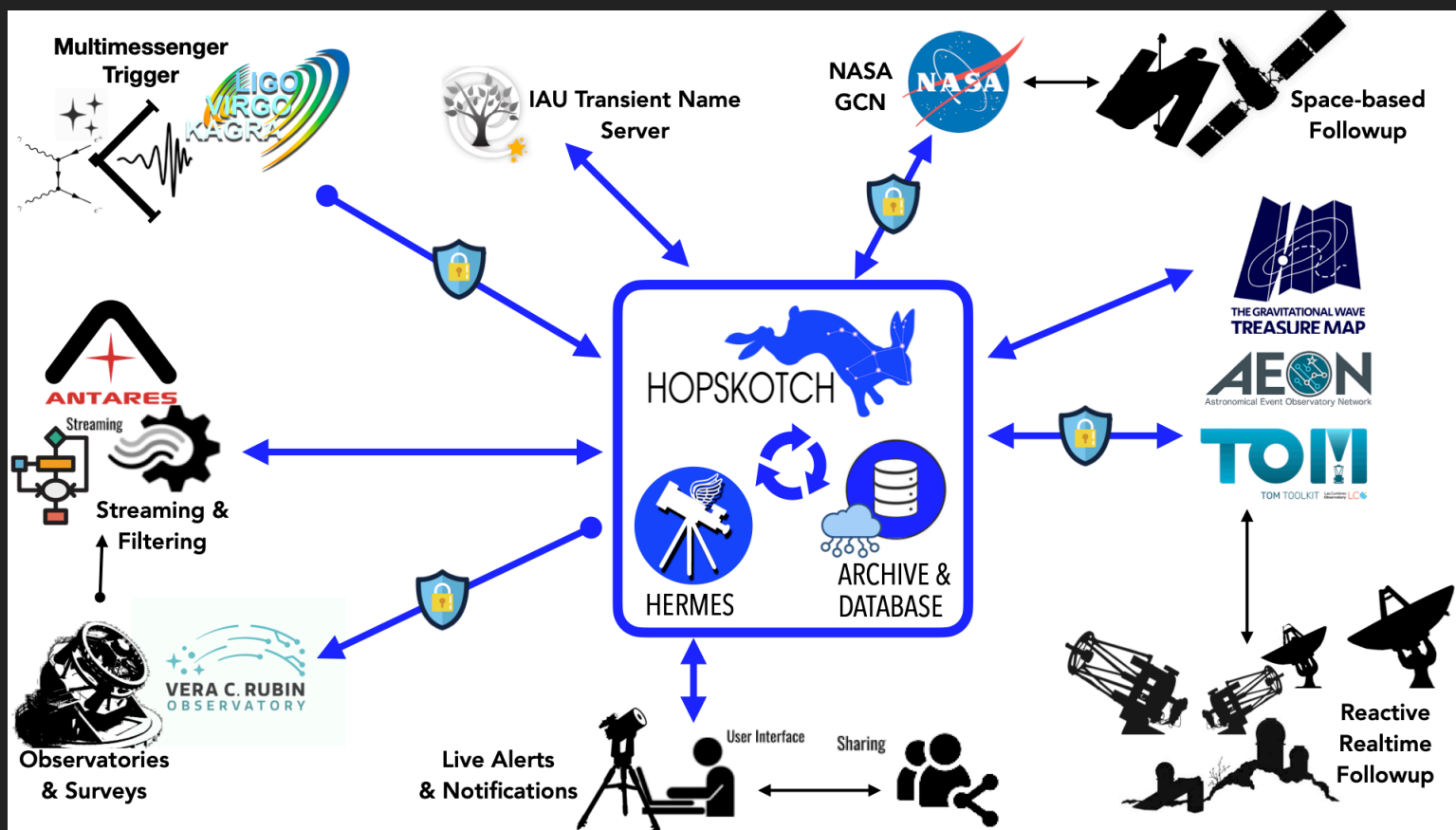
Date Range:

Target: null ra, null dec


Constraints: 2.0 airmass; 1.0 lunar phase

Telescopes: All Telescopes






HAVE YOU TRIED TO FIGURE OUT IF AN OBSERVATORY IS OPEN OR WHAT INSTRUMENTS ARE ON?



W. M. KECK OBSERVATORY
On the summit of Mauna Kea, Island of Hawaii



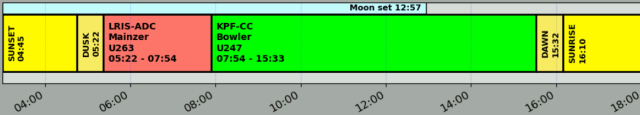
View: day Telescope: Both Navigation: ◀ Mar 26, 2026 ▶ Type: schedule

THURSDAY MARCH 26, 2026 HST

KECK 1
PRINCE KUIRO DAY

Observing Assistant: TonyR Support Astronomer: Sherry Night Attendant: Shawn
Oncall Support: Max (swoc) John (ecoc)

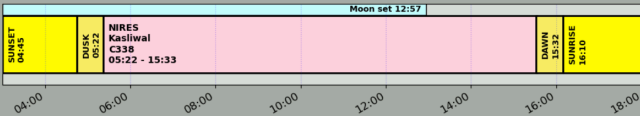
Time (UT)	Instrument	Account	PI	Institution	PROGID	Observers (Location)
05:22 - 07:54	LRIS-ADC	lris1	Mainzer	UCLA	U263	Linder (HQ)
07:54 - 15:33	KPF-CC	kpfl	Bowler	UCSB	U247	Premnath (Other), Rowan (Other), Tagliavia (Other)



KECK 2
PRINCE KUIRO DAY

Observing Assistant: John Support Astronomer: Percy Night Attendant: Shawn
Oncall Support: Max (swoc) John (ecoc)

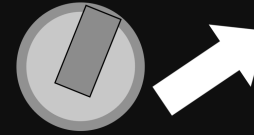
Time (UT)	Instrument	Account	PI	Institution	PROGID	Observers (Location)
05:22 - 15:33	NIRES	nires9	Kasliwal	CIT	C338	Rose (Other)



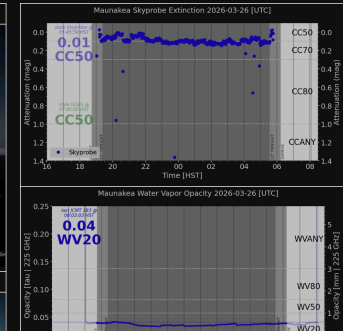
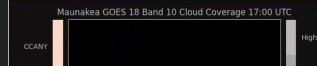
Gemini North Status 2026-03-26 08:00:05-10:00

Validity	ToO Availability	Instruments Availability	Comment	GMOS Config	Open Status
Valid until 2026-03-26	NOT Available for Target of Opportunity tonight		Telescope closed tonight due to a fault.	Click Here	CLOSED (as of 2026-03-26 08:00:05-10:00).

Relative Humidity: 9%
Temperature: 1.80°C
Wind Speed: 5.3 m/s
Wind Direction: 236°



Telescope Azimuth: 75.0°
Humidity Risk & Cloud Cover



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YOU CAN SEE THE STATUS OF ALL DIFFERENT OBSERVATORIES

The screenshot shows the HERIC web application interface. The browser address bar displays `dev.heroic.scimma.org`. The navigation menu includes **Home**, **Target Visibility**, **Telescopes**, **Instruments**, **Pointing**, and **Planning**. A sidebar on the left contains a **Filters** section with the following settings:

- Visibility:
- Airmass:
- Date Range:
- Target: `null ra, null dec`
- Constraints: `2.0 airmass; 1.0 lunar phase`
- Telescopes: `All Telescopes`

The main content area features a world map with several colored markers indicating observatory status:

- Green markers with the number 4 are located in the Pacific Ocean, the Atlantic Ocean, and Africa.
- A green marker with the number 3 is located in North America.
- A yellow marker with the number 11 is located in South America.
- A red marker with the number 6 is located in Australia.
- A red marker with the number 7 is located in the Middle East.



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YOU CAN SEE POINTINGS FOR OBSERVATORIES THAT PUBLISH THEM

The screenshot shows a web browser at `dev.heroic.scimma.org`. The application interface includes a navigation bar with 'Home', 'Target Visibility', 'Telescopes', 'Instruments', 'Pointing', and 'Planning'. A left sidebar contains a 'Filters' panel with the following settings:

- Visibility:
- Airmass:
- Date Range:
- Target: null ra, null dec
- Constraints: 2.0 airmass; 1.0 lunar phase
- Telescopes: All Telescopes

The main area displays a world map with several colored markers indicating pointing locations: green markers with numbers 3, 4, and 4; a yellow marker with number 11; a red marker with number 4; and a red marker with number 6. A 'File outline' section is visible at the bottom left of the application window.



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ALL OF THESE DATA CAN BE ACCESSED PROGRAMATICALLY

The screenshot displays the HERIC web application interface. At the top, a browser address bar shows the URL `dev.heroic.scimma.org`. Below the browser, a navigation bar includes the HERIC logo and menu items: Home, Target Visibility, Telescopes, Instruments, Pointing, and Planning. On the left side, a 'Filters' panel is open, showing the following settings:

- Visibility:
- Airmass:
- Date Range:
- Target: null ra, null dec
- Constraints: 2.0 airmass; 1.0 lunar phase
- Telescopes: All Telescopes

The main area of the interface is a world map. The map is divided into two panels: the left panel shows the Americas (North and South America) in light blue, and the right panel shows the rest of the world in a darker grey. Several numbered markers are placed on the map to indicate telescope locations:

- Green marker '3' in the western United States.
- Green marker '4' in the western United States.
- Green marker '4' in the eastern United States.
- Yellow marker '11' in Argentina.
- Red marker with a telescope icon in the Middle East.
- Green marker '4' in Africa.
- Red marker '6' in Australia.



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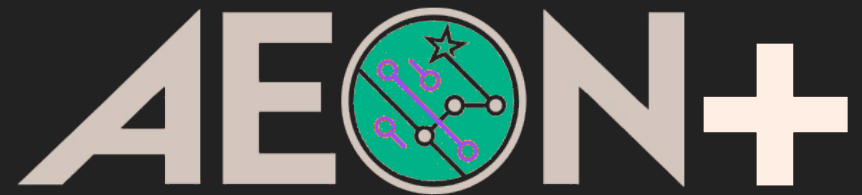
A REQUEST TO RUBIN (AND EVERYONE ELSE)

- ▶ Please publish which pointings are completed
- ▶ If you can associate planned pointings with completed pointings (or updated plans), that's even better!
- ▶ We would love feedback on what you need to submit your telescope status. We would love to include your favorite telescopes and instruments!



NEXT STEPS

- ▶ We are in the process of adding more facilities!
- ▶ Our next phase of development will be to interface with data archives across facilities to download data for a given position on the sky (target) from the HEROIC page.



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SUMMARY/DISCUSSION

- ▶ We have developed HEROIC, a web-based app that aggregates that status of NOIRLab and LCO facilities
- ▶ We are in the early phases of aggregating observatory pointings
- ▶ Our goal is to be able to aggregate all the existing data on a given target (both in time and space) as a single point for users to download
- ▶ We want to include your observatory!
 - ▶ What do you need for us to add yours?



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