



BRUCE A. BLAKEMAN
NASSAU COUNTY EXECUTIVE

CERT



NASSAU COUNTY



MONTHLY NEWSLETTER

March 2025

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Asteroid 2024 YR4: Assessing the Risks and Implications of Its Approach to Earth (Hint: IT WILL NOT HIT EARTH, this time, 2032)

Asteroids have long captivated human curiosity, serving as both harbingers of cosmic history and potential threats to our planet. One such asteroid, designated 2024 YR4, has recently garnered significant attention due to its projected close approach to Earth in December 2032. Initial observations raised concerns about a possible impact, but subsequent studies have provided a clearer and more reassuring picture. This article delves into the discovery, characteristics, risk assessments, and broader implications of asteroid 2024 YR4's approach.

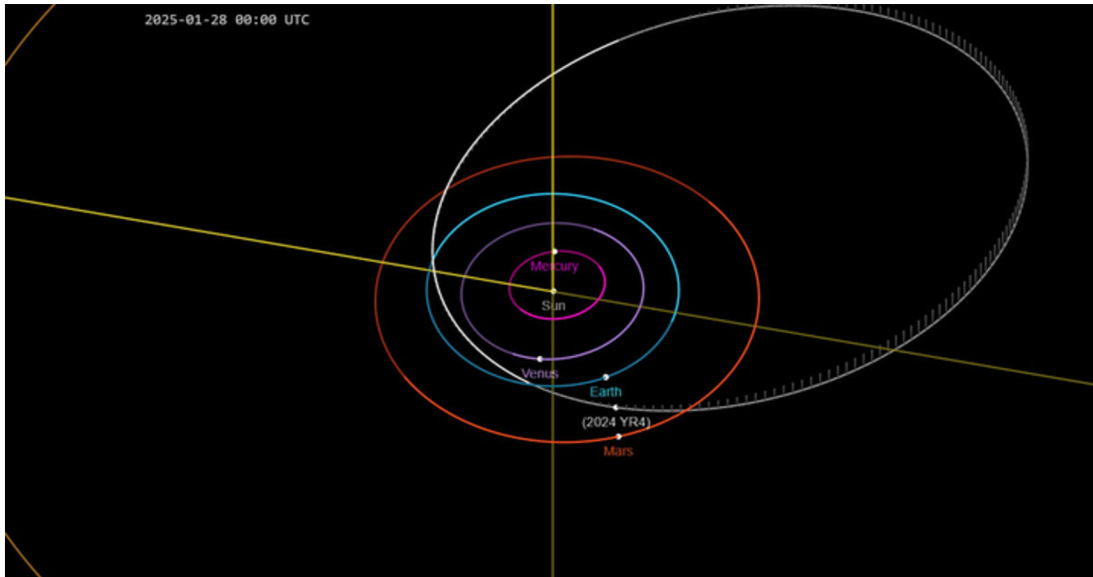
Discovery and Characteristics of Asteroid 2024 YR4

Asteroid 2024 YR4 was first identified on December 27, 2024, by the Asteroid Terrestrial-impact Last Alert System (ATLAS) telescope located in R o Hurtado, Chile. This near-Earth object (NEO) is estimated to measure between 130 to 300 feet (40 to 90 meters) in diameter. For context, an asteroid of this size could cause significant regional damage if it were to impact Earth, with energy release comparable to hundreds of times that of the Hiroshima atomic bomb. The asteroid follows an elliptical orbit around the Sun, intersecting Earth's orbital path, which classifies it as a potentially hazardous asteroid. Its orbital period is approximately four years, with its last perihelion occurring on November 22, 2024. Notably, 2024 YR4 made a close approach to Earth on December 25, 2024, at a distance of about 515,000 miles (828,800 kilometers), roughly twice the average distance to the Moon. Its next anticipated close approach is projected for December 17, 2028, at a distance of approximately 5 million miles (8 million kilometers), posing no threat to Earth during that passage.

Continued on next page



**COUNTY, STATE
&
FEDERAL
ONE TEAM**



Initial Risk Assessment and Rising Concerns

Following its discovery, preliminary calculations indicated that asteroid 2024 YR4 had a 3% chance of impacting Earth on December 22, 2032. This probability was notably high, making it the highest ever recorded for an asteroid of its size or larger. Such an impact could potentially cause severe regional devastation and significant loss of life. Consequently, the asteroid was classified at Level 3 on the Torino Impact Hazard Scale, a system that categorizes the impact risk of near-Earth objects. A Level 3 rating signifies a close encounter with a 1% or greater chance of collision capable of causing localized destruction, warranting attention from astronomers and the public.

Refining the Trajectory: Observations and Updated Assessments

In response to the initial impact probability, astronomers worldwide prioritized observations of 2024 YR4 to refine its orbital parameters. The European Southern Observatory's Very Large Telescope (VLT) in Chile played a pivotal role in this effort. High-precision measurements obtained from the VLT, along with data from other observatories, allowed scientists to better constrain the asteroid's trajectory. These enhanced observations led to a significant reduction in the estimated impact probability. By late February 2025, the European Space Agency's Near-Earth Objects Coordination Centre reported the impact probability had decreased to approximately 0.001%, while NASA's Jet Propulsion Laboratory assessed it at 0.004%. These figures effectively downgraded the asteroid's threat level to negligible, reclassifying it to Level 0 on the Torino Scale, indicating no significant risk of impact.

Understanding the Fluctuations in Impact Probability

The initial rise and subsequent dramatic decline in the impact probability of 2024 YR4 illustrate a common pattern in asteroid tracking. When a new asteroid is discovered, limited observational data can result in significant uncertainties regarding its orbit, leading to a wide range of possible future positions, some of which may intersect with Earth. As additional observations are gathered, these uncertainties diminish, and the asteroid's path becomes more precisely defined, often ruling out any potential collision. This process underscores the importance of continuous monitoring and data collection in accurately assessing asteroid threats.

The Role of Planetary Defense Initiatives

The case of asteroid 2024 YR4 highlights the critical role of planetary defense initiatives in safeguarding Earth from potential asteroid impacts. Organizations such as NASA and ESA, in collaboration with international partners, have established programs to detect, monitor, and analyze near-Earth objects. For instance, NASA's Double Asteroid Redirection Test (DART) mission successfully demonstrated the ability to alter an asteroid's trajectory through kinetic impact, providing a viable method for future asteroid deflection if necessary. Additionally, the deployment of advanced telescopes and early warning systems enhances our capacity to identify potential threats well in advance, allowing for timely and effective responses.



Broader Implications and Future Considerations

While asteroid 2024 YR4 no longer poses a significant threat, its initial detection and assessment serve as a valuable case study in planetary defense. It emphasizes the necessity for robust observation networks, international cooperation, and public awareness in addressing potential asteroid hazards. Moreover, as our detection capabilities improve, we are likely to identify more near-Earth objects, some of which may require mitigation strategies. Continued investment in research, technology development, and policy planning is essential to prepare for and potentially prevent future impacts.

Conclusion

Asteroid 2024 YR4's journey from a potential threat to a benign celestial object exemplifies the dynamic nature of asteroid monitoring and risk assessment. Through concerted global efforts and advancements in observational technology, scientists were able to accurately characterize the asteroid's trajectory, alleviating public concern. This event underscores the importance of preparedness, international collaboration, and continued vigilance in protecting our planet from extraterrestrial hazards.

INTRODUCING THE CERT INCENTIVE PROGRAM!

Our CERT team is built on dedication, training, and service to the community. To recognize and encourage participation, we're excited to introduce a new incentive program! Members who attend meetings, training sessions, and key events where their help is needed will have the opportunity to earn special challenge coins, patches, and pins.

While many of you already show up without hesitation, this program is a way to acknowledge your commitment and give a little something back. These collectible items serve as a symbol of your hard work and dedication to emergency preparedness and community service. Whether you're a longtime member or new to the team, we encourage you to take part, earn your rewards, and wear them with pride! Stay tuned for more details, and as always, thank you for your service to Nassau County!



CHALLENGE COINS & PINS



PATCHES

I have not yet determined a system as to how the items will be distributed, but as soon as we do, there will be another announcement. This program will start with the next Division 1 and Division 2 CERT meetings in March. So, make sure you attend and sign in at your next meeting.



Radio Amateur Civil Emergency Services (RACES)



Our February 6th RACES / CERT Communications meeting was held on Zoom. 2025 promises to be a busy year for those who enjoy being a part of the many events that will be held in the New York Area. Each year, our members participate as amateur radio operators at many of these events. If you are not an amateur radio operator and would like to learn what it is like you can shadow an experienced radio operator so you can learn the ropes. Many of us started out learning what it was like before eventually becoming an amateur radio operator. If you are interested in any of the below listed events email us at nassaucountyny.races@gmail.com. We will place you in touch with the appropriate organization.

The Amateur Radio Relay League (ARRL) is conducting a sweepstakes for all new and renewing members in 2025. To renew or join go to <https://www.arrl.org/arrl-sweepstakes/>

Silent Key:

We regret to announce the passing of John Caramagna K2JBC. We send our thoughts and prayers to the family. He will be missed.

Interested or just curious about Emergency Communications? We invite you to attend our next RACES / CERT Communications meeting on Thursday March 6th at 7:30 pm in the lecture hall, 510 Grumman Road West, Bethpage NY.

73

RACES Leadership

Website: www.nassauraces.net

Email: nassaucountyny.races@gmail.com

2025 Events

Sunday March 16th United Airlines NYC Half Marathon

Sunday March 23rd Babylon Village Saint Patricks Day Parade

Saturday April 26th Official Marconi Day Station

Saturday April 26th Queens Center for Progress - Footsteps for Progress

Sunday April 27th Alley Pond Striders 5 Mile Challenge

Sunday April 27th NYCRUNS Brooklyn Half Marathon

Saturday May 17th RBC Brooklyn Half Marathon

Saturday May 17th MS Walk at Jones Beach

Saturday May 17th The American Airpower Museum

Saturday May 31st ADA Bike Ride in Port Washington

Friday July 11th Maggie Fischer Cross Bay Swim

Sunday July 13th Gold Coast Bike Tour

Saturday August 16th -17th Fire Island Lighthouse

Sunday September 7th Babylon Village Fair

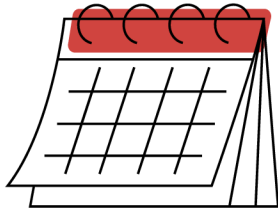
Sunday October 19th ACS Walk at Jones Beach

Sunday October 19th Suffolk County Marathon

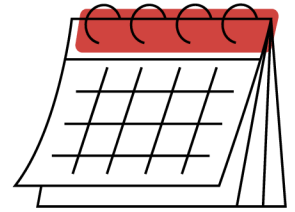
Sunday November 2nd TCS New York City Marathon



If you SEE Something SAY Something



Planned Events & Trainings



FEMA offers a large variety of online courses that are free of charge and will help to further your preparedness education. If you do not have a FEMA ID, you can register for one here.
:<https://cdp.dhs.gov/femasid>



Emergency Management Institute - Independent Study (IS) | Course List
FEMA Emergency Management Institute (EMI) Independent Study Course List
fema.gov

IS-100.C: Introduction to the Incident Command System, ICS 100

<https://training.fema.gov/is/courseoverview.aspx?code=IS-100.c&lang=en>

IS-317.A: Introduction to Community Emergency Response Team (CERTs)

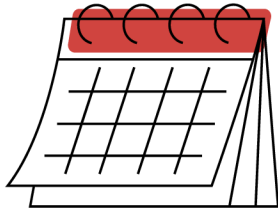
As a pre-requisite for CERT Basic classroom training or just to learn more about the program, check out EMI's Independent Study (IS) course IS-317.A.

<https://training.fema.gov/is/courseoverview.aspx?code=IS-317.a&lang=en>

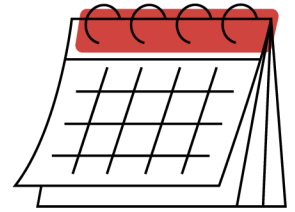
IS-315.A: CERT and the Incident Command System (ICS)

IS-315.A educates CERT program managers, trainers, or emergency responders on CERT's relationship to the Incident Command System (ICS) and potential roles CERTs play in a disaster or emergency situation.

<https://training.fema.gov/is/courseoverview.aspx?code=IS-315.a&lang=en>



Planned Events & Trainings



To register for Narcan training visit:
<https://toh311.net/Narcan-signup/#/>



BRUCE A. BLAKEMAN
NASSAU COUNTY EXECUTIVE

Text to 911 NOW LIVE

Response just as quick as a 911 call!



Mande un Texto al 911 ¡YA DISPONIBLE!

Response just as quick as a 911 call!





Nassau County



Weather, News & Events

March 2025 ▾ DAILY →

S	M	T	W	T	F	S
23	24	25	26	27	28	1
47° 30°	48° 31°	53° 38°	57° 41°	49° 41°	51° 41°	56° 25°
2	3	4	5	6	7	8
34° 18°	37° 26°	47° 40°	57° 48°	55° 32°	45° 33°	47° 32°
9	10	11	12	13	14	15
42° 28°	44° 34°	51° 36°	52° 44°	56° 34°	46° 27°	40° 28°
16	17	18	19	20	21	22
42° 32°	43° 31°	53° 41°	56° 41°	57° 43°	58° 43°	54° 41°
23	24	25	26	27	28	29
50° 40°	51° 42°	56° 43°	56° 43°	58° 42°	59° 43°	57° 44°
30	31	1	2	3	4	5
58° 36°	56° 34°	48° 40°	58° 36°	49° 34°	51° 44°	56° 45°

Please send in any photos you have taken of news worthy items or from any CERT events that you have attended and I will select some to be used in the newsletter. Send images to:
rdelucia@nassaucountyny.gov

Calendar of Events

March

S	M	T	W	T	F	S
						1
2	3	4	5 Div 1	6 RACES	7	8
9	10	11	12	13	14	15
16	17	18 Div 2	19	20	21	22
23	24	25	26	27	28	29

April

S	M	T	W	T	F	S
		1	2	3 RACES	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	1	2	3



CERT Division Meetings



CERT Events



RACES Meetings



**All County Meetings
(Div1, Div2 & RACES)**

Upcoming Meetings

RACES Meeting -

Date: Thursday March 6th, 2025

Time: 7:30pm

Location: 510 Grumman Rd Lecture Hall

Division 1 Meeting -

Date: Wednesday March 5, 2025

Time: 7:00pm

Location: 510 Grumman Road West, Lecture Hall

Division 2 Meeting -

Date: Tuesday March 18th 2025

Time: 7:00pm

Location: Rockville Centre Recreation Center, Lower Level



NASSAU COUNTY CERT COORDINATORS

RICK DELUCIA
OEMCERT@NASSAUCOUNTYNY.GOV

DIVISION 1

DIVISION SUPERVISOR
BILL PAVONE
NASSAUCERTDIV1@YAHOO.COM

DIVISION 2

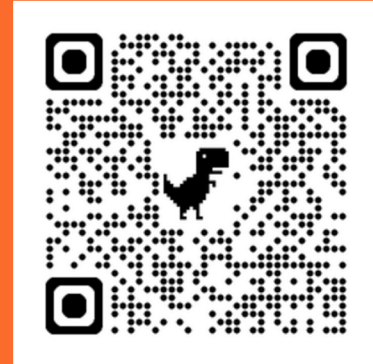
DIVISION SUPERVISOR
MARVIN STEIN
CERTDIV2NASSAU@GMAIL.COM

KNOW YOUR ZONE



Scan this code or click here
to see flood zone map.

EMERGENCY ALERTS



Scan this code or click here
to sign up for Emergency Alerts.

FOLLOW US ON SOCIAL MEDIA



Nassau County OEM



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