CONNECTING CLASSROOMS TO THE COSMOS:

Democratising Space Communication Through The ARISS Contact Experience In Nigeria

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WHY THIS MATTERS?

- Space science has traditionally been accessible to only a few.
  - Efforts are being made by different groups to create space science awareness
  - Meeting with an astronaut
- Another angle: Bring space communication directly into classrooms - making it more inclusive, engaging, and accessible.

WHAT IS ARISS?

- Amateur Radio on the International Space Station is a global education initiative that enables students to communicate directly with astronauts aboard the International Space Station (ISS).
- It combines space science, communication technology, and education outreach to inspire the next generation.
- The program is divided into five regions—Canada, Europe, Japan, Russia, and the U.S.—which parallel the five space agencies involved in the ISS.

NIGERIA'S FIRST ARISS CONTACT

- In September 2025, National Space Research and Development Agency coordinated Nigeria's first physical ARISS contact event.
- Students from selected schools in the FCT participated (public and private)
- Supported by ARISS Telebridge network
- Enabled direct communication with an astronaut aboard the ISS

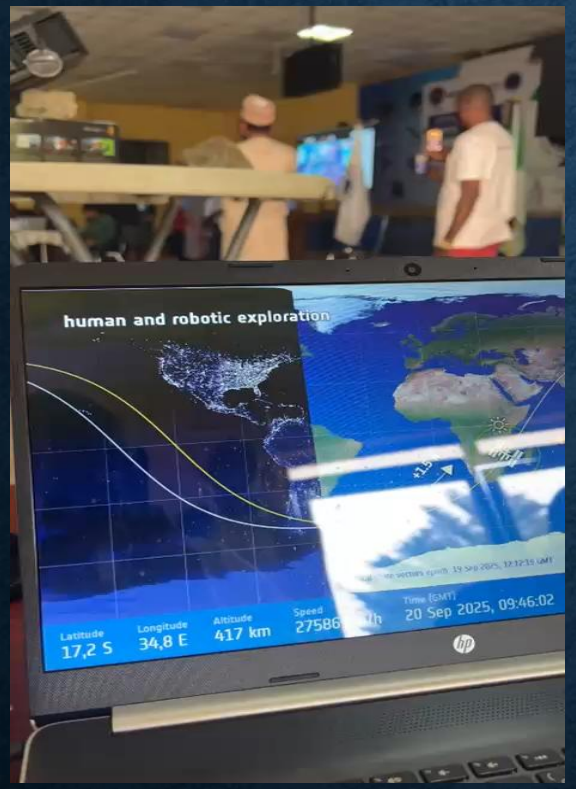

NASRDA CONNECTS
WITH THE ISS
NATIONAL SPACE RESEARCH
AND DEVELOPMENT AGENCY
ON THE COMMENCEMENT OF SPACE REGULATION,
SPECTRUM MANAGEMENT AND LICENSING IN NIGERIA.
GEOAPPS PLUS LTD

THE EXPERIENCE

During the live contact:

- Students engaged in real-time Q&A with an astronaut
- Discussed life and science aboard the ISS
- Connected classroom learning to real-world space applications

SHORT CLIPS


human and robotic exploration
Latitude
17,2 S
Longitude
34,8 E
Altitude
417 km
Speed
Time (GMT)
20 Sep 2025, 09:46:02

OUR COLLABORATION MODEL

The success of the event relied on collaboration across:

- NASRDA technical and outreach teams
- Participating schools and educators
- Media partners
- The global ARISS community
  - Stefan Dombrowski, our moderator
  - John Sygo, Amateur Radio ground station operator

Creating a shared sense of achievement and curiosity.

Approximately 305 persons in attendance on the contact day

MEDIA LINKS COVERING THE EVENT

1. https://x.com/NTANewsNow/status/1969750322449944767?t=kIw09Trff5D-Lae7TXqCkg&s=09 (Nigeria Television Authority, NTA)
2. https://independent.ng/nigeria-makes-history-as-nasrda-connects-students-to-international-space-station/ (Independent Nigeria Newspaper)
3. https://techeconomy.ng/history-as-nasrda-connects-students-to-international-space-station/
4. https://www.vanguardngr.com/2025/09/nasrda-connects-nigerian-students-to-international-space-station/
5. https://thesun.ng/nigeria-charts-new-course-in-space-education-with-historic-iss-link-up/
6. https://gazettengr.com/nigerian-students-connect-with-nasa-astronaut-aboard-iss/
7. https://www.newsexpressngr.com/news/276660/nigerian-students-connect-with-nasa-astronaut-in-space-pose-questions
8. https://realnewsmagazine.net/nigerian-students-connect-with-nasa-astronaut-in-space-pose-questions/
9. https://businessday.ng/news/article/tinubus-science-push-spotlighted-as-nigerian-students-engage-nasa-astronaut/
10. https://guardian.ng/news/nasrda-connects-students-to-international-space-station/
11. The Channels TV Station

CHALLENGE ADDRESSED

Key challenges addressed:

- Limited access to hands-on astronomy experiences
  - Live, real-time interaction with an astronaut aboard the ISS
  - Created a unique experiential learning opportunity rarely available in traditional classrooms
- Perception of space science as distant or inaccessible
  - Brought space into the classroom environment
  - Humanised space exploration through live conversation
  - Allowed students to ask their own questions, making it personal and relatable
- Infrastructure constraints in resource-limited environments
  - Leveraged the ARISS Telebridge network to overcome local technical limitations
  - Used existing communication systems creatively

LESSONS LEARNED

- Strategic partnerships are essential
- Creativity can overcome infrastructure limitations
- Community engagement drives participation and ownership

IMPACT: EXPANDING ACCESS TO SPACE SCIENCE

- Direct engagement with space professionals
  - Lecture before contact
  - Q & A sessions with Agency Directors
- Increased curiosity and interest in STEM
- Strengthened connection between education and real-world science
- Reduced barriers between students and space science experiences

HOW DO WE SUSTAIN THIS IMPACT?

- School visits and space awareness campaigns
- Educational tours to the NASRDA space museum
- Hands-on demonstrations and learning activities
- Expanding participation to more schools

AI AS AN ENABLER (STILL IN THOUGHT PROCESS)

- Interactive tools to simulate space communication experiences
- Personalised learning support for students
- Chat-based systems to extend engagement beyond physical events

The idea?

These approaches can help scale access and make learning more interactive.

CONTRIBUTION TO SUSTAINABLE DEVELOPMENT GOALS

CONCLUSION

- Nigeria successfully hosted its first ARISS school contact
- Demonstrated the impact of direct space communication in education
- Showed that meaningful engagement is possible even in resource-limited settings

THANK YOU