



# SAFARISS IS TOTALLY IN LINE WITH OUR CURRENT PIONEERING EDUCATIONAL PROGRAM ON SPACE ACTIVITIES

The "Lycée de l'Espace" already offers specific teaching modules oriented to the space sector for students aged 15 to 18.

For example: Space conquest during the Cold War for history class.

For physical education, an introduction to diving to simulate weightlessness in order to practice astronaut training and build a space station block underwater (see picture below on the left).

Meetings with professionals as Thales Alenia Space or Airbus Defence and Space (see picture below on the right).



SAFARISS is the opportunity to complete our space training with radio communication courses and discover amateur radio activity.

Concretely, the "Lycée de l'Espace" conducts cross-disciplinary activities with 70 pupils:

- > Sinusoid and visibility of satellites (tracking ISS) - Math course
- > Frequencies and the Doppler effect - Physics course
- > Study of the movie "Sergio & Sergeï" - History course
- > Q code - English course



Cartoon approach to learn the Q code  
(Extract from "Spirou, QRN over Bretzelburg")

And exercises with CSUT and ham radio:

- > Introduction to radio communications principles
- > What can amateur radio be used for today?
- > Transmitter hunting (fox hunt, use of goniometry)
- > Communication between the high school and the University of Toulouse III Paul Sabatier ground station
- > Construction of an RDS reception station at the high school

# ENCOURAGE AND PERPETUATE EXCHANGES BETWEEN HIGH SCHOOL, UNIVERSITY AND HAM RADIO

With SAFARISS, CSUT will bridge the gap between high school and university in the space sector. For instance, presentations and posters about radio communications will be made by high school pupils and will be tutored by students from the University of Toulouse III Paul Sabatier. It will be a moment for them to exchange on their school curriculum and passion about space and radio communications.

On the ham radio side, SAFARISS makes it possible to publicise and enhance the permanent ground communication station (F4KLD) at the University of Toulouse III Paul Sabatier.

F4KLD is a part of the CSUT ground station network.

The goal is to show pupils and students that they can communicate in space like professionals with university equipment at their disposal.



VHF antenna (2x10 elements) and UHF antenna (2x17 elements) of F4KLD (<https://youtu.be/2lGayGdK42E>)

## HAM RADIO TESTIMONIAL

*"Ham radio and assistant professor at Paul Sabatier University, I think that the ARISS project is an extraordinary opportunity to instil in high school students the desire to explore areas that they previously considered out of reach.*



*This approach gives them the energy to assimilate my lessons and those of my colleagues and thus understand and get closer to the magical world of space".*

Jean-François, F4IAX

## PUPIL TESTIMONIAL



*"Accessing Space has always been one of my projects. My school curriculum at the "Lycée de l'Espace" is built around this idea. To date, the ISS is the first gateway to the stars. After having crossed paths with him several times in Toulouse, exchanging directly with Thomas Pesquet with the help of passionate radio amateurs, evokes for me the pioneering spirit that marks the space adventure. Communicating via this amateur medium demonstrates that Space is not reserved but is accessible to all! The idea that my voice resonates aboard the ISS would be a first step for me in this adventure."*

Pauline

## PUPIL TESTIMONIAL

*Talking with Thomas Pesquet would truly be a wonderful opportunity, having always been drawn to space and its secrets. Being able to communicate with an astronaut through amateur radios would be really enriching and encouraging to see that people achieve incredible things, no matter who we are, if we believe in our dreams they will come true.*

Johana



# MEDIA COVERAGE

We are working with the communication department of University of Toulouse III Paul Sabatier to obtain as much media coverage as possible.

## BEFORE THE RADIO CONTACT WITH THOMAS PESQUET

A Twitter and Instagram accounts will be dedicated to promote SAFARISS with project updates; pictures; videos; testimonials...

The hashtag #ARISS2021\_TLS will be used for all our social network communications.

Through twitter accounts of the SAFARISS project stakeholders, we are already counting an audience of 63 000 people.



Articles will be published notably in "La Dépêche" (local newspaper with an audience of 731 000 people according to ACPM) to bring our project led by pupils, students and ham radio to general public's attention with also status report.

An action should also be taken with the "Cité de l'Espace" to bring to the fore SAFARISS project to a more varied public (375 000 visitors in 2019).

SARATECH 2021 (ham radio exhibition in the South West of France) will be the opportunity for CSUT to welcome SAFARISS on its booth to spotlight the project among radio amateur.

**The radio contact with Thomas PESQUET will also be one of the high point of the 10-year anniversary of the "Lycée de l'Espace".**

Invitations to the radio contact will be sent to :

- > Space partners companies of the "Lycée de l'Espace" and CSUT (Airbus Defense & Space, Thales Alenia Space as well as SME...)
- > Space organisations as French Space Agency (CNES)
- > Minister of the Economy, Finance and Economic Recovery
- > Minister of National Education
- > Mayors of Saint-Orens and Toulouse
- > President of the Occitanie Region
- > AMSAT-FR

## D-DAY OF THE RADIO CONTACT WITH THOMAS PESQUET

A 200-seat amphitheatre at the University of Toulouse III Paul Sabatier will host the radio contact with the ISS.

A pool of national and local media (newspapers; TV; radio; blog...) will be present.

Audio-visual students will make a souvenir video.

A YouTube live will be broadcasted to gather as many people as possible.

## AFTER THE RADIO CONTACT WITH THOMAS PESQUET

A QSL type card of the radio exchange with Thomas PESQUET will be sent to each participant (if a mail address has been given online) with a satisfaction questionnaire.