

# Technical Commission 3AF- SIGMA 2



**3AF/ SIGMA2**

**Webinar 2: Approach to UAP physical observables (14-15 May 2024)**

<https://www.3af.fr/commission-technique/sigma>

**3AF**

Association Aéronautique  
et Astronautique de France



**SCU**

Scientific Coalition for UAP Studies  
Scientific Cooperation of Aeronautics and Astronautics Professionals



SOCIETY FOR UAP STUDIES



**UAP** check



VASCO



**3AF**

Association Aéronautique  
et Astronautique de France

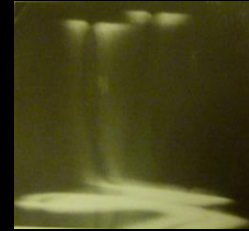


*3AF is a scientific society registered under the French legislation  
(Legal framework : France, Loi 1901, non-profit organization)*

*[www.3af.fr](http://www.3af.fr)*

## 3AF/ SIGMA2 Webinar 2

### Approach to UAP physical observation



### UAP are real phenomena with remarkable observables:

Visible and Optical sightings are the most natural approach for UAP observation, by naked eye or with sensors, or simply with a smartphone, by pilots, by astronomers but also simply by ordinary people facing strange unknown phenomena.

Radar and EM sensors are also precious to measure the UAP kinematics (range, velocity, doppler shift), cross check information with optical and IR sensors, but also to characterize the UAP EM signatures. Beyond, it is also important to gather information on the induced effects from the interaction of the UAP with their surrounding medium (air, earth, vegetation, water ) or with the human being in close encounter.

In order to organize discussion between experts on these physical observables, this webinar gathers contribution of top and credible international scientific and academic experts of physical approach of UAP (3AF SIGMA2, SCU / Scientific Coalition for UAP Studies, Limina / Society for UAP studies, Würzburg Uni / IFEX, Vasco project team, etc.).

This webinar 2 was prepared with the support of all of you and members of 3AF Staff, SIGMA2.

Our common objective during these two days is to discuss different UAP observation cases and observables through 4 technical sessions (optical, EM, interaction, miscellaneous).

We also planned 4 round tables, two on technical topics, one on international matters, the last on cases of observation by pilots.



**3AF SIGMA2 webinar 2**  
**Program overview**  
**(13-14 May 2024, Paris & online)**



Sessions/ Round tables	Theme	Chair/ moderator
<b>Introduction: 14 May 8:45-8:50 am</b>		
<b>Session 1: 14 May 8:50- 11:30 am</b>	Optical observables	Geoffrey Mestchersky
<b>Round table 1: 14 may: 11:45- 12:30 am</b>	Physical observables	Luc Dini
<b>Session 2: 14 May: 14:00- 15:30</b>	EM observables	Luc Dini
<b>Round table 2: 14 May: 15:45- 17:00</b>	International	Baptiste Friscourt
<b>Session 3: 15 May: 9:15-11:30 am</b>	UAP interaction with medium	Dr Mike Cifone
<b>Round table 3: 11:45- 12:30 am</b>	UAP effects	Edoardo Russo
<b>Session 4: 14:00- 15:30</b>	Miscellaneous	Edoardo Russo
<b>Round table 4: 15:45- 18:00</b>	Pilots and controllers experience	Luc Dini/ Baptiste Friscourt
<b>Closing remarks: 18:00-18:15</b>		L. Dini

# Technical Commission 3AF- SIGMA 2



**3AF**  
Association Aéronautique  
et Astronautique de France

**3AF/ SIGMA2**

**Webinar 2: Approach to UAP physical observables (14-15 May 2024)**

<https://www.3af.fr/commission-technique/sigma>



**SCU**  
Scientific Coalition for UAP Studies  
Scientific Coalition of American Astronautical Professionals



**SOCIETY FOR UAP STUDIES**



**UAP** check



**VASCO**



## Opening introduction of Webinar

**M. Alain JUILLET**

Senior executive consultant on economic intelligence  
Former advisor to prime minister on economic intelligence



## **Presentation of the program**

**M. Luc DINI**

Chairman of 3AF SIGMA2 Technical Commission (3AF)



Name	Affiliation	Subject
<b>M. Geoffrey MESTCHERSKY</b>	3AF SIGMA2	Session Chair
<b>M. Luc DINI</b>	Chairman of 3AF SIGMA2 Technical Commission (3AF: (Association Aéronautique et Astronautique de France) ; fellow member of 3AF; Expert optics and optronics measurements ; member of GEIPAN college of experts	Introduction of Webinar 2 on to UAP physical observables (eg plasma and Hypersonic objects)
<b>Dr. Beatriz VILLAROEL</b>	Limina / Society for UAP studies ; astronomer ; Nordic fellow, Nordic Institute for Theoretical Physics, Sweden ; Director of Vasco Team	Fast flashes from alien artifacts
<b>M. Raymond PICCOLI</b>	Director of Laboratoire de Recherche sur la Foudre, member of GEIPAN College of experts, SIGMA2 Technical Commission of 3AF	Farfadet (TLEs/sprites) observation network
<b>Pr. Hakan KAYAL</b>	Pr at Wurzburg University - IFEX	Space Technologies and UAP Studies at IFEX





Name	Affiliation	
<b>M. Luc DINI</b>	3AF SIGMA2 Chairman	Moderator
<b>Brigadier General (French Air and Space Force, Ret.) Jean-Marc ANDRE</b>	3AF SIGMA2 French Air Force retired pilot	
<b>Pr. Hakan KAYAL</b>	Wurzburg University - IFEX	
<b>M. Michael VAILLANT</b>	UAP Check	
<b>Dr. Beatriz VILLAROEL</b>	Nordic Institute for Theoretical Physics VASCO and EXOPROBE project SUAPs	

3AF SIGMA2 webinar 2  
Session 2 : Radar and EM observables  
(15/05/2024)



Name	Affiliation	Subject
<b>M. Luc DINI</b>	3AF SIGMA2 Chairman	Session Chair
<b>Brigadier General (French Air and Space Force, Ret.) Jean-Marc ANDRE</b>	3AF SIGMA2 French Air and Space Force pilot (ret.)	Jersey case analysis: visual and radar data analysis
<b>Dr. Joshua PIERSON</b>	SCU	"Detectable Signatures of UAP: Building an Intelligence Picture of Capabilities Through Structured Analytic Techniques" PhD dissertation by Joshua Pierson
<b>M. Robert POWELL</b>  Co-authored with <b>M. Glen SCHULZE</b>	SCU	Stephenville Lights: A Comprehensive Radar and Witness Report Study Regarding the events of January 8, 2008



Name	Affiliation	
<b>M. Baptiste FRISCOURT</b>	The Debrief	Moderator
<b>Brigadier General (Armament, Ret.) Pierre BESCOND</b>	COMETA 3AF SIGMA2 Chairman of the GEIPAN Steering Committee.	
<b>M. Joachim DEKKERS</b>	Chairman UAP coalition Netherlands (UAP COALITIE Nederland)	
<b>M. Luc DINI</b>	3 AF SIGMA2 Chairman	
<b>M. Rich HOFFMAN</b>	SCU	
<b>M. Alain JUILLET</b>	Senior Executive advisor in economic intelligence and security	
<b>M. Rony VERNET</b>	UAP Researcher Electronics and Computer Engineer	
<b>M. Yoshiharu ASAKAWA</b>	Member of the House of Representatives (Japan)	



Name	Affiliation	Subject
<b>Dr. Mike CIFONE</b>	City University of New York (Bronx) Director of Society for UAP Studies (SUAPs)	Session Chair
<b>Dr. Gérard LABAUNE</b>	3AF SIGMA2 Expert in EM wave effects - Directed Energy Weapons	UAP EME effects: analysis of the Teheran case
<b>M. Geoffrey MESTCHERSKY</b>	3AF SIGMA2 Expert in Geochemistry	Samples analysis
<b>M. Larry HANCOCK &amp; M. Ian PORRITT</b>	SCU	UAP Pattern Recognition Study 1945-1975 US Military Atomic Warfare Complex
<b>Ms. Anne TYLER</b>	SUAPs Co-PI of the UAP & Pilots Research and EPIC Project	Harnessing the Power of Pilot Testimony: UAP & Pilots Research and EPIC Project



Name	Affiliation	
M. Edoardo RUSSO	CISU	Moderator
M. Frédéric COURTADE	CNES - Director of GEIPAN	
Pr. Kevin KNUTH	University at Albany UAPx	
M. Geoffrey MESTCHERSKY	3AF SIGMA2 Expert in Geochemistry	
Ms. Yasmin ROUXEL	3AF SIGMA 2 Clinical Psychologist	
Ms. Anne TYLER	SUAPs Co-PI of the UAP & Pilots Research and EPIC Project	



Association Aéronautique  
et Astronautique de France

3AF SIGMA2 webinar 2  
Session 4 : Miscellaneous  
(15/05/2024)



Name	Affiliation	Subject
<b>M. Edoardo RUSSO</b>	CISU	Session Chair
<b>M. Pierre MARX</b>	3AF SIGMA2 Expert in space propulsion	Electromagnetism and Gravitation
<b>M. Olivier GORETTA</b>	3AF SIGMA2 Advisor	Review of Science Applications to Propulsion and Defence Intelligence Reference Documents related to AATIP/AAWSAP
<b>M. Robert POWELL</b> Co-authored with <b>Dr. Sarah LITTLE</b> & <b>M. Larry HANCOCK</b> & Ms. Laiba HASAN, M. Robinson TRUONG, M. Tobi KAMORU	SCU	"The Reported Shape, Size, Kinematics, Electromagnetic Effects, and Presence of Sound of Unidentified Aerial Phenomena from Select Reports, 1947-2016"



Association Aéronautique  
et Astronautique de France

## 3AF SIGMA2 webinar 2

### Round table 4: Pilots encounters



Name	Affiliation	
<b>M. Luc Dini</b>	3AF SIGMA2 chairman	Moderator
<b>M. Baptiste FRISCOURT</b>	The Debrief	Moderator
<b>Brigadier General (French Air and Space Force, Ret.) Jean-Marc ANDRE</b>	3AF SIGMA2 French Air Force retired pilot	
<b>Captain (ret.) Ray BOWYER</b>	Pilot (Captain, Civil Aviation, ret.)	
<b>Retired US Navy Chief Master-at-arms Sean CAHILL</b>	US Navy, Ret. Nimitz Tic-Tac Witness	
<b>Rear Admiral (French Fly Navy, Ret.) Xavier HOUDAILLE</b>	3AF SIGMA2 French Navy fighter pilot (Ret.) Experience of UAP encounter	
<b>Brigadier General (French Air and Space Force, Ret.) Bruno MIGNOT</b>	French Air and Space Force pilot (Ret.) Experience of UAP encounter	



Association Aéronautique  
et Astronautique de France

## 3AF SIGMA2 webinar 2

### Conclusion remarks

(15/05/2024)



## Conclusion remarks

**M. Luc DINI**

Chairman of 3AF SIGMA2 Technical Commission (3AF)



# Technical Commission 3AF- SIGMA 2



**3AF**  
Association Aéronautique  
et Astronautique de France

**3AF/ SIGMA2**

**Webinar 2: Approach to UAP physical observables (14-15 May 2024)**

<https://www.3af.fr/commission-technique/sigma>



**SCU**  
Scientific Coalition for UAP Studies  
Scientific Coalition of American Astronautical Professionals



**SOCIETY FOR UAP STUDIES**



**UAP** check



**VASCO**

# Brigadier General (Ret.) Jean-Marc ANDRE

## Speaker

### Round table Participant



#### Abstract (Session 2)

The Jersey case is an interesting model of data crossing : it has been possible, in real time, to match the visual observations of the UAP by the pilots in flight with the radar detection situation perceived by the air traffic controller.

Today, we are resuming the study of this case by starting from the recordings of the radar data and comparing them with the visual testimonies.

A very interesting analysis, but full of surprises that still leave a lot of questions unanswered.



#### Resume

**Jean-Marc André**  
**Brigadier General (Ret.)**  
**French Air and Space Force**



Expert in Air defense and member of the GEIPAN college of experts. Member of the 3AF SIGMA2 commission.

Graduated as an engineer from the French Air Force Academy (1970). Fighter pilot officer, commanded combat units and an air defense detection and control center. Participated in the development of military space programs (GRAVES, HELIOS) as head of the space division of the Air Force General Staff. Served also as Deputy Director of Protection and Safeguarding at the Space Centre in French Guiana (1995–1997). Has worked as upstream research officer in the Think tank of a defense industrial group. Worked on directed energy projects.

# Brigadier General (Armement, Ret.) Pierre BESCOND

## Round table participant



### Resume

**Pierre Bescond**  
**Brigadier General (Armement, Ret.)**



Space expert and senior consultant in space, export, quality, defence & security, member of the IAA (International Academy for Astronautics), member of the Board of 3AF (Association Aéronautique et Astronautique de France), auditor of IHEDN (Institut des Hautes Etudes de Défense Nationale, French institute for Defence and Security), member of COMETA which produced the 1999 UAP report. Former engineer at DGA (French Defense Procurement Executive) and at CNES (French National Space Agency) where he held various directorates positions, former member of the Council of ESA (the European Space Agency), and former advisor on space, defence and security issues for the French Minister in charge of Space.

Chairman of the GEIPAN Steering Committee.



**COMETA**



Association Aéronautique  
et Astronautique de France

# Captain Ray BOWYER

## Round table Participant



### Resume

#### Ray Bowyer Captain

Trained originally as an engineer, my flying career began with Novair out of Gatwick UK in 1989. I flew for 13 airlines before retiring in 2014 with my last commercial company being Aurigny Air Services based in Alderney and Guernsey flying the BN Trislander. In 2007 I witnessed seeing two UFO's in the region of Guernsey and Alderney for approximately 15 minutes. Enquiries into the incident are ongoing. My name is Captain Ray Bowyer. Trained originally as an engineer, my flying career began with Novair out of Gatwick UK in 1989. I flew for 13 airlines before retiring in 2014 with my last commercial company being Aurigny Air Services based in Alderney and Guernsey flying the BN Trislander. In 2007 I witnessed seeing two UFO's in the region of Guernsey and Alderney for approximately 15 minutes. Enquiries into the incident are ongoing.

# US Navy Chief Master-at-arms (Ret.) Sean CAHILL

## Round table Participant



### Resume

**Sean CAHILL**  
US Navy, Ret. | Nimitz Tic-Tac Witness  
Retired US Navy Chief Master-at-arms



Chief Cahill served in the United States Navy from 1995 - 2015. He was entrusted with critical missions spanning anti-terrorism, anti-piracy, interrogation, and investigations. He is a co-founder and strategic advisor for Skyfort.org, a think tank and tech incubator that focused on the UAP issue until closing its doors after congressional hearings were achieved in 2022. Sean continues his work today as Global Platform and Projects Advisor for Investigate the Unknown and the Nanu App coming in 2024. Nanu centers on a "for the people, by the people" understanding of Unidentified Anomalous Phenomenon promoting community and reducing the harm around the ontological shock that often follows in depth study or interaction. He has shared his experience and perspectives on platforms like the History Channel, Discovery, major news outlets, and podcasts. Sean's journey embodies both a rich history of service and a humble pursuit of understanding the mysteries that intrigue us.

<http://www.mintyhyperspace.com>



Association Aéronautique  
et Astronautique de France

# Dr. Michael CIFONE

## Sessions Chair

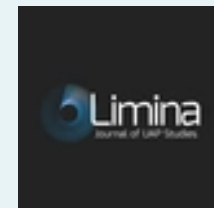


### Resume

**Dr. Michael Christian CIFONE**  
**City University of New York (Bronx)**  
**Director of Society for UAP Studies (SUAPs)**

Dr. Mike Cifone received a Ph.D. from the University of Maryland at College Park (UMD) in the philosophy of science. His research focused on the conceptual foundations of theoretical physics, and the metaphysical implications of relativity and quantum theories.

Dr. Cifone published in a number of physics and philosophy journals and after graduating from UMD in 2009, taught widely in philosophy, the philosophy of science, ethics, and logic at various universities and colleges across the United States, including in New York City and San Francisco. Since 2016 he has been a lecturer in philosophy for the City University of New York's Bronx campus. Now he works on UAP and the problem of what a science of the phenomena should be. Early in 2022, he founded both Limina - The Journal of UAP Studies and the Society for UAP Studies in an effort to provide the scholarly UAP community with serious academic infrastructure for peer-reviewed scholarly publication; regular academic meetings; interdisciplinary debate and dialogue; sustained international cooperation and exchange; and disciplinary definition through academic curriculum development, conferences and focused workshops.





Association Aéronautique  
et Astronautique de France

## M. Frédéric COURTADE Round table Participant



### Resume

**Frédéric Courtade**  
**CNES / GEIPAN Director**



Frédéric COURTADE, 56 years old, Physicist engineer, is currently Head of « GEIPAN » at CNES Toulouse space Center. Starts at Alcatel Space® France then Siemens Automotive® in their respective material division and became expert in Scanning Electron Microscopy and associated analytic techniques for Hardware characterization and expertise. Joins CNES in 90's and takes over the in-house expertise lab for technology and failure analysis of Electronic Electromagnetic and Electrical Components. Expert in Component technology and manufacturing, he joined the PURE® team for provider assessment worldwide. Then he led many research & technology studies in the field of MEMS and nanotechnology based devices. From 2014 to 2020 he became technical manager of the French payload of JUICE® spacecraft and led the French Research & Technology program for the development of advanced scientific instruments for planetology and exobiology purpose. Before his position at GEIPAN he was Head of “Space mechanisms & Attitude sensors and actuators for orbital spacecraft” office.





Association Aéronautique  
et Astronautique de France

# M. Joachim DEKKERS

## Round table Participant



### Resume

**Joachim DEKKERS**  
**UAP COALITIE Nederland Chairman**  
**<https://uapcoalitienederland.nl/>**

**Joachim DEKKERS** is the founder and chairman of UAP Coalition Netherlands.





Association Aéronautique  
et Astronautique de France

M. Luc DINI

Speaker and Session Chair

Round table Participant & Moderator



### Abstract (Session 1)

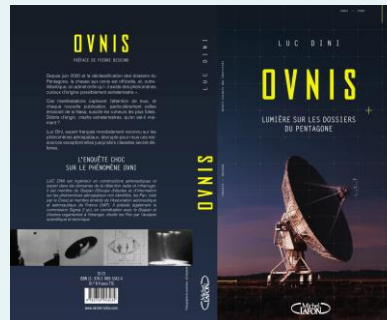
#### Approach of UAP optical observables

The SIGMA 2 Commission is a technical Commission of the French 3AF (Association Aeronautics and Astronautics de France) dedicated to scientific investigation and technical analysis of reports of UAP cases using a multi-disciplinary methodology. Its team of experts includes professionals in aviation, engineering, physics, air defense, IR and radar detection, ball lightning, propulsion, and psychology.

The paper reviews first the basics of physical observables, from optical signature and to EM signatures, then discusses shortly of plasma effects from a multi frequency perspective, since interactions between EM waves and plasma are depending on the frequency. This may lead to rationale for observation.



Association Aéronautique  
et Astronautique de France



### Resume

#### Luc Dini



Chairman of 3AF Technical Commission SIGMA2 on UAP study.  
Fellow member of Association Aéronautique et Astronautique de France (3AF)

Graduated engineer in aeronautics (ISAE-ENSICA 1984), skilled in missiles, space, high atmosphere radiation, IR and visible phenomenology, air defense, IR and radar detection, hyperfrequency. Former military engineer, he had worked on the high atmosphere radiation physics. Former auditor of IHEDN (Institute of High Studies of National Defense-National Armament and Economy of Defense National Session N°44 2007-2008) and of Economic Intelligence Session of IHEDN (2017). Member of the GEIPAN college of experts.



Association Aéronautique  
et Astronautique de France

## M. Baptiste FRISCOURT Round table Moderator



### Resume

#### **Baptiste FRISCOURT** **The Debrief Correspondent**

Born in 1986, this certified visual arts teacher started looking for reliable information on UAP in 2017 at the request of his students. Since then, he's been covering UAP research in France for The Debrief. Trying to bridge scientific research with cultural effect, he is looking to connect all reliable sources on UAP research.





Association Aéronautique  
et Astronautique de France

## M. Olivier GORETTA Speaker



### Abstract (Session 4)

#### Review of Science Applications to Propulsion and Defence Intelligence Reference Documents related to AATIP/AAWSAP

The paper reviews in a first part, analysis by Sigma2 experts of several novel approaches and advanced/breakthrough technologies that could explain some of UAP behaviours, then in a second part, lists Defence Intelligence Reference Documents related to AATIP/AAWSAP (Advanced Aviation Threat and Identification Program/ Advanced Aerospace Weapon System Applications Program), classifies them in categories and gives an example of data sheet issued from one of the documents.



### Resume

#### Olivier Goretta

Advisor to the 3AF Technical  
Commission SIGMA2 on UAP Study.



Graduated Engineer from Ecole Centrale Méditerranée (Master of Sciences, 1991) and Master of Business Administration (IAE Nice 1992). Skilled in Space, Remote Sensing, Intelligence Surveillance and Reconnaissance, Air and Missile Defence, Directed Energy Devices, Optics (IR and Visible) and Radar phenomenology, Communication and Information Systems, Innovation. He had managed Space Awareness Optical Systems and collaborated to Space Awareness System Functional Analysis. Member of 3AF.



Association Aéronautique  
et Astronautique de France

# M. Larry HANCOCK & M. Ian PORRITT Speakers



## Abstract (Session 3)

## Resume

### The Pattern Study 1945-1975 Military And Public Activities

### Larry Hancock

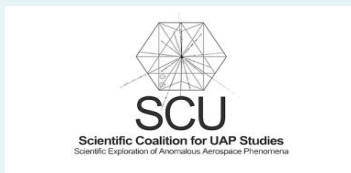
Reviews patterns of UAPs in the US associated with nine specific types UAP activity, these being: interactive flight, radical flight, electronic transmissions, interference with military weapons systems, intrusions at military installations, loitering, close approaches, observed occupants, and encounters with occupants.

Graduate of the University of New Mexico, earning his BA with a triple major in history, cultural anthropology, and education. After serving in the United States Air Force, he pursued a corporate career in technical education and technology marketing. Following retirement, he turned to historical research and published several collections of CIA, FBI and military documents prior to writing and publishing a dozen books in Cold war era military, and national security topics including Unidentified / The National Intelligence Problem of UFOs. His role in the Intentions Project deals with the identification and selection of study and control sites as well as the development of the historical context all atomic facilities and military bases.

The study found a transition from daytime incidents involving interactive flight and radical flight, high visible displays of advanced technology, to predominately nighttime activity directed towards the public and close approaches. We also found a cluster of IFF transmissions during this transition period and running through the whole study period is military interference and intrusions occurring at key strategic times of the development and deployment of atomic weapons.

### Ian Porritt

Analyst working in the research and development area with over 30 years of experience in New Zealand / Australia, BBS from Massey University, New Zealand. Amateur astronomer who has contributed to the discovery of several exoplanets from his home observatory, including an Earth-like planet orbiting a single star in a binary star system known as OGLE-2013-BLG-0341LBb. Contributing member of SCU, specializing in data analysis and identifying patterns within the data. Co-author of the UAP pattern & intention Study papers focusing on the 1945-1975 US Military Atomic Warfare Complex and UAP activities. Affiliate of the Galileo Project.





Association Aéronautique  
et Astronautique de France

## Rear Admiral (Ret.) Xavier HOUDAILLE Round table participant



### Resume

#### **Xavier Houdaille** **Rear Admiral (French Fly Navy, Ret.)**

Jet fighter pilot on Etendard IV M, Super-Etendard, Mirage 2000 and Rafale M (Prototypes)

Specialized in low level and high-speed attacks against ground and maritime targets

Graduated engineer from the French Navy Academy (1969)

In command of several units (Super-Etendard unit, Naval Air Base, Navy in Paris)

Rafale Program manager officer for 5 years, in charge of general studies about the future use of the aircraft, the definition of the combat system and of the in-flight evaluation of the aircraft including launches and traps aboard the Carrier.

Thales airborne system, as of 2004, responsible during 9 years of Thales operations in Turkey for the development of MPAs and MSAs for Turkish Navy and Coast-Guard.



Association Aéronautique  
et Astronautique de France





Association Aéronautique  
et Astronautique de France

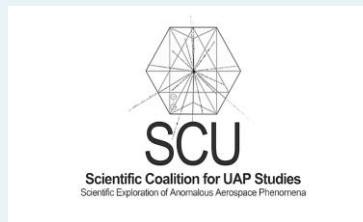
## M. Rich HOFFMAN Round table participant



### Resume

#### Rich Hoffman Scientific Coalition for UAP Studies (SCU)

Rich Hoffman has a BA in Organizational Communications from Wright State University. He is an Information Technology consultant and strategist. He has worked as a defense contractor for over 20 years, working primarily for the Army Materiel Command HQ with a variety of companies. Currently, Mr. Hoffman works as an Enterprise Architect at Redstone Arsenal and the Marshall Space Flight Center in Huntsville, Alabama. He has over 54 years of experience investigating and researching the UFO subject. Mr. Hoffman has served as Director of Investigations, Star Team Manager and Director of Strategic Projects, as well as the State Director of MUFON and worked with numerous organizations. Rich Hoffman has a BA in Organizational Communications from Wright State University. He is an Information Technology consultant and strategist. He has worked as a defense contractor for over 20 years, working primarily for the Army Materiel Command HQ with a variety of companies. Currently, Mr. Hoffman works as an Enterprise Architect at Redstone Arsenal and the Marshall Space Flight Center in Huntsville, Alabama. He has over 54 years of experience investigating and researching the UFO subject. Mr. Hoffman has served as Director of Investigations, Star Team Manager and Director of Strategic Projects, as well as the State Director of MUFON and worked with numerous organizations.





### Abstract (Session 1)

The main objectives of the Research Center for Extraterrestrial Studies (IFEX) at JMUW, which prof. Kayal founded in 2016 are the exploration of space, objects in our solar system, stars, galaxies, and the universe, search for signs of life as well as the search for extraterrestrial intelligence (SETI) and research on Unidentified Anomalous Phenomena (UAP). IFEX is currently the only University in Germany with UAP research in its official research canon and unique combination of space technologies and UAP research. The presentation will give some insights into the center's activities and projects as well as plans for future activities.

### Resume

**Hakan Kayal** is a professor for space technologies since 2008 at the Julius-Maximilians-University Würzburg (JMUW). His current main research interests are in the fields of design, construction and operation of space systems, especially highly autonomous nanosatellites for exploration, search for extraterrestrial intelligences (SETI) and research on Unidentified Anomalous Phenomena (UAP). He is leading the Research Center for Extraterrestrial Studies (IFEX) at JMUW, which he founded in 2016. After his study of aeronautics and astronautics at the Technical University of Berlin, prof. Kayal worked in the frame of several satellite projects such as TÜRKSAT-1B, BIRD, BEESAT and SONATE-2, latest one launched in March 2024. He is also responsible for the development of intelligent UAP sensor systems at IFEX.



Association Aéronautique  
et Astronautique de France

# Pr. Kevin KNUTH

## Round table Participant

(tbc)

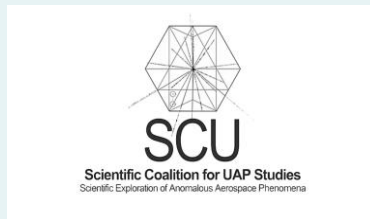


### Resume

**Pr. Kevin Knuth**  
**University at Albany**  
**UAPx**



Prof. Kevin Knuth is a Full Professor in the Department of Physics at the University at Albany. He is the lead scientist of UAPx, and is a member of the Scientific Coalition for UAP Studies (SCU) and the Society for UAP Studies (SUAPS). He is the Editor-in-Chief of the journal Entropy (MDPI), and a former NASA research scientist having worked for four years at NASA Ames Research Center in the Intelligent Systems Division. He has over 25 years of experience in designing machine learning systems for data analysis applied to the physical sciences. Knuth has published over 100 peer-reviewed scientific publications and has been invited to give over 80 presentations in 17 countries.







Association Aéronautique  
et Astronautique de France

# Dr. Gerard LABAUNE

## Speaker



### Abstract (Session 3)

#### UAP EME effects

Analysis of the Teheran case which is well documented from open literature, Cometa Report, NARCAP report on aeronautics cases....We consider than the testimonies are true. We will, from engineers' perspective, assume that the radio and weapons system failures are due to the electromagnetic radiation from the UFO or its appendage. Measuring electromagnetic radiation from UFOs is very difficult because of their unexpected appearance.

In fact, the malfunctions that appear on our systems can be seen as measures of.

We know perfectly well the electromagnetic susceptibility of our systems. So they can be seen as sensors.

At a given date, we know the performance of man-made sources  
Knowing the distances means you can tell whether the source is potentially human ... or not.



### Resume

#### Dr. Gerard Labaune

3AF SIGMA2  
Expert in EM DEW



Member of 3AF Technical Commission SIGMA2 on UAP study.

Graduated engineer-doctor (Ecole Polytechnique 1978), skilled in electromagnetism, electromagnetic compatibility, hyper frequency, plasma, laser.

Former head of a department (and several subsidiaries) in defence industry group.



Association Aéronautique  
et Astronautique de France

# Dr. Sarah LITTLE

## Co-author (with Robert POWELL)

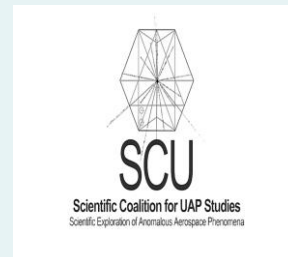


### Resume

#### Dr. Sarah Little

**SCU / Science advisor at the Scientific Coalition for UAP Studies , coauthor on five Galileo Project Phase 1**

Dr. Little holds a Ph.D. from the Massachusetts Institute of Technology/Woods Hole Oceanographic Institution (MIT/WHOI) Joint Program in Oceanography/Applied Ocean Science and Engineering, specializing in marine geophysics. Her thesis involved theoretical, laboratory, and field studies of fluid flow and underwater acoustics. She also worked on laser communications and adaptive optics at the Mt. Haleakala observatory in Hawaii. She is currently the science advisor at the Scientific Coalition for UAP Studies and is coauthor on five Galileo Project Phase 1 instrumentation papers that are currently published [Randall et al., 2023](#); [Szenher et al., 2023](#)); accepted ([Mead et al., 2023](#); [Watters et al., 2023](#)); or submitted Cloete et al., 2023).





Association Aéronautique  
et Astronautique de France

# M. Pierre MARX

## Speaker



Abstract	Resume
<p><b>Electromagnetism and Gravitation</b></p> <p>Maxwell's equations of the 2nd group, which govern the EM field in the absence of charges (nil second member), ignore the fact that, according to General Relativity, any form of energy, and therefore among which EM energy, creates a gravitational field.</p> <p>The reason is that we need fields the magnitude of which do not bear any comparison to those we know how to produce or observe. So a second member appears, as if there were charges present.</p> <p>Our hypothesis is that these "bumps" in the EM field are actually the very charges, which are created by the EM energy and not the other way round.</p> <p>They generate a gravitational field that is repulsive in their vicinity and then attractive to become aligned with Newton's law.</p>	<p><b>Pierre Marx</b></p> <p>Born in 1940 – Graduated from Nancy Faculty of Sciences.</p> <p>Former Foresight Director at the CNES where he spent most of his professional career on satellite launchers. The magnitude of the dedicated means, the limits of chemical propulsion and the absence of a credible alternative led him in 1990 to become interested in the gravitation that could be generated by an electromagnetic field powerful enough for it to be observable. In 2009 and 2020, his work was published by the "Annales de la Fondation Louis de Broglie".</p> <p>He is a member of the "Sigma 2" technical commission for the study of Unidentified Flying Object (UFO) of the 3AF. In this capacity, he promotes the extraterrestrial hypothesis (HET), the only one which, according to him, addresses each and every aspect of the cases deemed undeniable and unexplainable through today's physics.</p> <div></div> <div></div>



Association Aéronautique  
et Astronautique de France

**M. Geoffrey MESTCHERSKY**  
**Speaker**  
**Session Moderator**  
**Round table Participant**



**Abstract (Session 3)**

**Sample analysis**

As much as in the public mind than in the UAP community, physical traces of UAP are something considered as very rare. In this paper, we will see, since the end of WWII it is not totally accurate. Then in a second step, we will compare the UBATUBA sample analysis between data already published and  $\Sigma 2$ 's results.



**Resume**

**Geoffrey Mestchersky**

Member of 3AF technical commission SIGMA2 on UAP study. Geoffrey Mestchersky holds a Master Degree in geochemistry from Paris VI University (Pierre et Marie Curie). Specializing in field sampling, field instrumentation, and lab experimentation; he has started his career at CNRS (Centre National de la Recherche Scientifique - French National Centre for Scientific Research) in Oceanography/applied Ocean Science. He is currently working in a french national research center.



Association Aéronautique  
et Astronautique de France

# Brigadier General (Ret.) Bruno MIGNOT

## Round table Participant



### Resume

#### **Bruno Mignot**

Brigadier General (French Air and Space Force, Ret.)

Air Brigadier General Bruno Mignot was certified as a fighter (Mirage 2000), transport (C160) and helicopter (SA330) pilot. Project manager at the Interministerial Intelligence Committee to the Prime Minister then executive-professor at the War School, he developed and directed the African International Warfare School in Yaoundé (Cameroon). He then commanded the French National Operations Center (NAOC) in Lyon and secondly directed the Center for Strategic Aerospace Studies in Paris. On availability from the Ministry of Defense since 2016, he carries out research and teaches business intelligence and operational planning in major schools. He has notably published 4 works on influence operations. During an aerial mission, on November 5, 1990, he and his crew saw a UFO: the explanation given seemed absurd to him.



Association Aéronautique  
et Astronautique de France

# M. Raymond PICCOLI

## Speaker

### Round table Participant



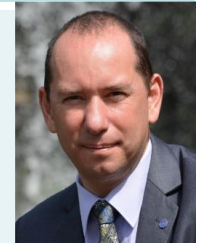
#### Abstract (Session 1)

#### Resume

#### Farfadet (TLEs/sprites) observation network

#### Raymond Piccoli

Director of Laboratoire de Recherche sur la Foudre.  
Member of the GEIPAN college of experts.  
Member of 3AF SIGMA2 Commission.



Raymond Piccoli is director of the Lightning Research Laboratory. A specialist in storm phenomena for three decades, he is an expert in the very specific field of the effects of lightning at the point of impact. Field scientist very experienced in conducting research in the heart of thunderstorms, his main research topics relate to ball lightning, phenomena resulting from natural photo nuclear reactions produced by lightning, and unconventional phenomena related to lightning. Astronomer by training (participation in projects in the fields of the detection of small bodies in the Solar System, optical interferometry and submillimeter radio astronomy), president of the Scientific Committee of the International Symposium on Lightning, Thunderstorm and Atmospheric Phenomena (ISL-TAP), curator of the Museum of Storms and Lightning, he is also a senior international consultant-expert, a reserve Gendarmerie officer (RCDS), and a scientific advisor for several public and private organizations. Raymond is also since 15 years member of the GEIPAN college of experts and member of the SIGMA2 Commission,





Association Aéronautique  
et Astronautique de France

# Dr. Joshua PIERSON

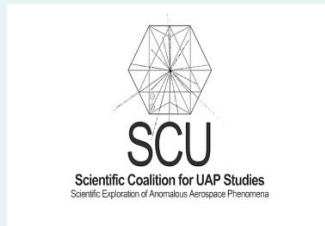
## Speaker



### Abstract (Session 2)

#### **Detectable Signatures of Unidentified Aerospace Phenomena: Building an Intelligence Picture of Capabilities Through Structured Analytic Techniques**

This research project identifies those signatures most reported during an Unidentified Aerospace Phenomena (UAP) encounter. Research into reported UAP encounters identified common measurement data or technical signatures that exist among multiple UAP encounters that are detectable. The qualitative methodology set the parameter guideline to review UAP testimonies from multiple references. The research methodology reduced the parameter guideline from 2,368 reports to 684 cases worthy of investigation. Data collection and analysis revealed a total of 42 signatures of possible detection. Analysis informed the construction of signature profile groups and comparison with the most reported signature, the shape. The primary implication identified as the result of this research project is that UAP emits signatures that are observable through unaided human observation and technical tools.



### Resume

#### **Dr. Joshua Pierson**

SCU / National Security Advisor

Joshua Pierson is a strategic security subject matter expert with 24 years in the field. Joshua has played a major role in educating his superiors and counterparts on the importance of technology protection, and insider threats, and illuminating adversarial capability and intent to target US and Allied Interests at home and abroad. Through his commitment to this role, he has helped increase the understanding of senior National Security and Intelligence Professionals regarding methodologies and models to counter adversarial interest in areas and venues of extreme sensitivity.

He has a Bachelor of Arts in Intelligence Studies from American Military University, a Master of Science in Strategic Security and Protection Management from Henley-Putnam University, and a Doctorate in Strategic Security from National American University. Joshua's dissertation on UAP examines the phenomena as both a public policy and a strategic security problem. His dissertation is titled "Detectable Signatures of Unidentified Aerospace Phenomena; Building an Intelligence Picture of Capabilities Through Structured Analytic Techniques" and is available at the following link: <https://zenodo.org/records/10982656> or can be provided upon request.



Association Aéronautique  
et Astronautique de France

**M. Robert POWELL**

**Speaker**

**(Two sessions / Two co-authored presentations)**



## Resume

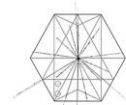
### **Robert Powell**

Scientific Coalition for UAP Studies (SCU)  
Founding Board member

Robert Powell is a founding Board member of the Scientific Coalition for UAP Studies (SCU), a 300-member organization with a mission of bringing science to the investigation of UFOs. Robert has a BS in Chemistry, 28 years of experience in engineering management in the semiconductor industry, and four patents in nanotechnology.

Robert is one of two authors of the detailed radar/witness report on the “Stephenville Lights”, the SCU report “UAP: 2013 Aguadilla, Puerto Rico” and the primary author on, “A Forensic Analysis of Navy Carrier Strike Group Eleven’s Encounter with an Anomalous Aerial Vehicle”.

He is a secondary author of a paper published in the journal *Entropy* entitled, “Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles” and “Isotope Ratios and Chemical Analysis of the 1957 Brazilian Ubatuba Fragment.” He is an author of three books with the latest: *UFOs: A Scientist Explains What We Know (And Don’t Know)*.



**SCU**

Scientific Coalition for UAP Studies  
Scientific Exploration of Anomalous Aerospace Phenomena





Association Aéronautique  
et Astronautique de France

# M. Glen SCHULZE and M. Robert POWELL

## Co-authors



### Abstract (Session 2)

#### **Stephenville Lights: A Comprehensive Radar and Witness Report Study Regarding the events of January 8, 2008**

This report presents the results of a lengthy and detailed analysis made into the sightings of an unidentified flying object between 6:00pm and 9:30pm on January 8, 2008, in the Dublin-Stephenville area of north Texas, Radar data from five different Federal Aviation Administration (FAA) radar sites as well as witness testimony was reviewed in an attempt to correlate radar data and witness testimony.



Scientific Coalition for UAP Studies  
Scientific Exploration of Anomalous Aerospace Phenomena

### Resume

**Glen Schulze** was involved in radar analysis of the breakup of TWA flight 800, and is a Live Member of the IEEE Professional Engineering Society. He received his BSEE from Washington University in 1952. While in the U.S. Army he was assigned to White Sands Proving Grounds (WSPG). There, he participated in evaluating and improving a five antenna site Cooperative Chain Radar System for tracking high-performance long-range missile launches. His contribution to the WSPG radar system resulted in earning a letter of commendation from the Commanding General of the USA 4TH Army. In the 1960s, M. Schulze provided a major service to CIA/NSA in the successful recording of high-powered Russian radar signals arriving at the Caribbean Isling of Antigua after being reflected from the surface of the moon. In the 1970s Mr. Schulze was instrumental in the successful demonstrations of recording and reproducing radar antenna return signals at the FAA Atlantic City Labs for accident investigations which eventually led to the FAA incorporating the taper recording of all FAA radar antennas around the US.

#### **Robert Powell**

is a founding Board member of the Scientific Coalition for UAP Studies (SCU), a 300-member organization with a mission of bringing science to the investigation of UFOs. Robert has a BS in Chemistry, 28 years of experience in engineering management in the semiconductor industry, and four patents in nanotechnology. Robert is one of two authors of the detailed radar/witness report on the “Stephenville Lights”, the SCU report “UAP: 2013 Aguadilla, Puerto Rico” and the primary author on, “A Forensic Analysis of Navy Carrier Strike Group Eleven’s Encounter with an Anomalous Aerial Vehicle”. He is a secondary author of a paper published in the journal *Entropy* entitled, “Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles” and “Isotope Ratios and Chemical Analysis of the 1957 Brazilian Ubatuba Fragment.” He is an author of three books with the latest: *UFOs: A Scientist Explains What We Know (And Don't Know)*.



Association Aéronautique  
et Astronautique de France

# Dr. Sarah LITTLE, M. Larry HANCOCK and M. Robert POWELL Co-authors



& Laiba HASAN, Robinson TRUONG, Tobi KAMORU

Abstract (Session 4)	Resume
<p><b>The Reported Shape, Size, Kinematics, Electromagnetic Effects, and Presence of Sound of Unidentified Aerial Phenomena from Select Reports, 1947-2016</b></p> <p>Publicly available witness reports, catalogued by military and civilian agencies, of Unidentified Aerial Phenomena (UAP) from 1947 to 2016 were hand-sorted for selection based on four criteria: reliability of witness testimonies, object angular size greater than 0.15 degrees, sufficient lighting, and sufficient information detail. The resultant database comprises the subset of historical UAP reports that were determined to likely represent unidentified aerial objects. Out of more than 100,000 reports amassed from one military database and four civilian databases, 301 reports spanning the same years were identified as meeting these criteria. From this selected set, the characteristics of shape, size, kinematics, electromagnetic effects, and sound emanation are examined.</p> <div> </div>	<p><b>Dr. Sarah Little</b> : SCU / Science advisor at the Scientific Coalition for UAP Studies , coauthor on five Galileo Project Phase 1</p> <p>Dr. Little holds a Ph.D. from the Massachusetts Institute of Technology/Woods Hole Oceanographic Institution (MIT/WHOI) Joint Program in Oceanography/Applied Ocean Science and Engineering, specializing in marine geophysics. Her thesis involved theoretical, laboratory, and field studies of fluid flow and underwater acoustics. She also worked on laser communications and adaptive optics at the Mt. Haleakala observatory in Hawaii. She is currently the science advisor at the Scientific Coalition for UAP Studies and is coauthor on five Galileo Project Phase 1 instrumentation papers that are currently published <a href="#">Randall et al., 2023</a>; <a href="#">Szenher et al., 2023</a>; accepted (<a href="#">Mead et al., 2023</a>; <a href="#">Watters et al., 2023</a>); or submitted Cloete et al., 2023).</p> <p><b>Robert Powell</b> is a founding Board member of the Scientific Coalition for UAP Studies (SCU), a 300-member organization with a mission of bringing science to the investigation of UFOs. Robert has a BS in Chemistry, 28 years of experience in engineering management in the semiconductor industry, and four patents in nanotechnology. Robert is one of two authors of the detailed radar/witness report on the “Stephenville Lights”, the SCU report "UAP: 2013 Aguadilla, Puerto Rico“ and the primary author on, “A Forensic Analysis of Navy Carrier Strike Group Eleven’s Encounter with an Anomalous Aerial Vehicle”. He is a secondary author of a paper published in the journal <i>Entropy</i> entitled, “Estimating Flight Characteristics of Anomalous Unidentified Aerial Vehicles” and “Isotope Ratios and Chemical Analysis of the 1957 Brazilian Ubatuba Fragment.” He is an author of three books with the latest: <i>UFOs: A Scientist Explains What We Know (And Don’t Know)</i>.</p> <p><b>Larry HANCOCK</b>, BA History &amp; Cultural Anthropology, SCU Board.</p> <p><b>Laiba HASAN, Robinson TRUONG, Tobi KAMORU</b>, University of Toronto graduate and undergraduate students.</p>



Association Aéronautique  
et Astronautique de France

# Ms. Yasmin ROUXEL

## Round table Participant



### Resume

**Yasmin Rouxel**  
**3AF Sigma2**

**Clinical psychologist - PdH candidate in psychology (University of Paris X Nanterre)**

Currently a freelance clinical psychologist and doctoral student in psychology at the University of Paris X Nanterre (at the CLIPSYD laboratory of research), I am also part of the Sigma2 Commission of the Aeronautical and Astronautical Association of France, under the presidency of Luc Dini. Following a personal experience of meeting with a UAP, in recent years I developed an interest in the question which led me to a study of the phenomenon through the completion of a university thesis on the psychological approach to experience of witnesses.

My professional background has allowed me to work in the health sector (neurodegenerative diseases, etc.) and the social sector (listening hours, etc.), as well as work psychology (analysis of practices, support for people suffering from work, supervision, etc.) and an audience of all ages and with various pathologies.

I hope to be able to contribute to understanding the effects of such an encounter as well as to better understand the phenomenon, the numerous testimonies of which reflect certain characteristics of it.



Association Aéronautique  
et Astronautique de France





Association Aéronautique  
et Astronautique de France

**M. Edoardo RUSSO**  
**Session Chair**  
**Round table Moderator**



**Resume**

**Edoardo RUSSO**  
CISU

Born in 1959, graduated in Economic Sciences. Lives and works as a consultant in Torino (Italy).

Has been actively involved with local, national and International UFO organizations since the late '70s.

A longtime field investigator, he is author of a "UFO investigation methodology manual" (1984, 1993).

Has been on the editorial board of several UFO periodicals, both in Italy and abroad (Ufo Phenomena International Annual Review, Magonia, European Journal of UFO Studies). He was author or coauthor of monographs and books about UAP, and presented papers in UFO congresses or conferences since 1979.

He is presently MUFON national director and a council member with Centro Italiano Studi Ufologici (CISU), while representing Italy within UAP Check initiative and EuroUfo.net .

**CISU – Centro Italiano Studi Ufologici**



Association Aéronautique  
et Astronautique de France

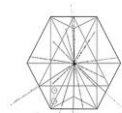
# M. Glen SCHULZE

## Co-author (with M. Robert POWELL)



### Resume

**Glen Schulze** was involved in radar analysis of the breakup of TWA flight 800, and is a Live Member of the IEEE Professional Engineering Society. He received his BSEE from Washington University in 1952. While in the U.S. Army he was assigned to White Sands Proving Grounds (WSPG). There, he participated in evaluating and improving a five antenna site Cooperative Chain Radar System for tracking high-performance long-range missile launches. His contribution to the WSPG radar system resulted in earning a letter of commendation from the Commanding General of the USA 4TH Army. In the 1960s, M. Schulze provided a major service to CIA/NSA in the successful recording of high-powered Russian radar signals arriving at the Caribbean Isling of Antigua after being reflected from the surface of the moon. In the 1970s Mr. Schulze was instrumental in the successful demonstrations of recording and reproducing radar antenna return signals at the FAA Atlantic City Labs for accident investigations which eventually led to the FAA incorporating the taper recording of all FAA radar antennas around the US.



**SCU**  
Scientific Coalition for UAP Studies  
Scientific Exploration of Anomalous Aerospace Phenomena



**Abstract (Session 3)**

**Harnessing the Power of Pilot Testimony: UAP & Pilots Research and EPIC Project**

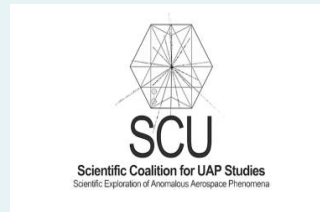
Anne Tyler, MS, LMFT, co-PI of the UAP & Pilots Research and EPIC Project, will outline a multi-phase research initiative that examines pilots' experiences with Unidentified Aerial Phenomena (UAP). Utilizing a mixed-methods approach that combines phenomenological analysis and surveys, the study aims to examine the personal and professional impact of UAP encounters on pilots. Additionally, the findings will inform the development of the EPIC project—Empowering Pilots with Integration and Community—which includes creating a private online community and supportive resources for pilots post-UAP events. These projects aim to enhance aerospace safety and understanding through pilot-driven recommendations on human factors training and communication protocols, emphasizing the need for enhanced visibility, funding, and support for collaborative initiatives.

**Resume**

**Anne M. Tyler**

Anne M. Tyler, MS, LMFT is a licensed mental health professional from Minnesota, US, who specializes in performance enhancement for individuals in high demand careers. She is the founding director of the Exceptional Experienter Empowerment Initiative (E<sup>3</sup>), which is a collaborative initiative of experts from academia, research, and clinical practice who provide ethical, research-based training to mental health professionals serving clients who report anomalous experiences.

Anne is an independent researcher interested in the application of qualitative and mixed methods for inquiry into the human impact, effects of societal stigma and integration of anomalous experiences. In support of collaboration on independent research projects, she is an affiliate or professional member of the Society for UAP Studies, The Galileo Commission, The Scientific and Medical Network, and the Society for Scientific Exploration (SSE).





Association Aéronautique  
et Astronautique de France

## M. Michael VAILLANT Round table Participant



### Resume

#### Michael VAILLANT UAP Check

Mr. Vaillant is a computer scientist with dual Masters degrees in Information Systems and Innovation Management. With 16 years of experience as a consultant and expert for GEIPAN, he played a pivotal role in creating the state-of-the-art governmental UAP database, developing automated investigation software. He also contributed to various projects, including an automated detection camera system for GEIPAN, laying the foundation for the French Fireball Observation Network. He co-authored a notable study on spatial correlations between UAP and French nuclear activity (T. Laurent et al., 2023) and meteorite interactions with stratospheric aerosols (M.-A. Courty et al., 2023).





Association Aéronautique  
et Astronautique de France

# M. Rony VERNET

## Round table Participant



### Resume

**Rony VERNET**

<https://twitter.com/RonyVernet>

UAP Researcher  
Electronics and Computer Engineer





Association Aéronautique  
et Astronautique de France

# Dr. Beatriz VILLARROEL

## Speaker

### Round table Participant



#### Abstract (Session 1)

##### Fast flashes from alien artifacts



#### Resume

##### Dr. Beatriz Villarroel

Dr. Beatriz Villarroel, an astronomer, is a postdoctoral researcher at the Nordic Institute for Theoretical Physics (Nordita) in Stockholm. She finished her PhD.

in 2017, writing a thesis on the environments on supermassive black holes (active galactic nuclei). She is very interested in transient astronomy and its connection to Searches for Extraterrestrial Intelligence (SETI). She leads the VASCO and EXOPROBE project, where EXOPROBE takes off answering the questions that are beyond the methodology of VASCO.

**M. Yoshiharu ASAKAWA**  
**Member of the House of Representatives (Japan)**  
**Round table Participant**



**Resume**

**M. Yoshiharu ASAKAWA**  
**Member of the House of Representatives (Japan)**

**Yoshiharu ASAKAWA**

Member of the House of Representatives (Kanagawa 1: Naka, Isogo and Kanazawa wards)

Political Party: Japan Innovation Party

Committee Memberships: Security Committee, Special Committee on Consumer Affairs

Vice-Chairman of the National Diet Committee

Secretary General of Kanagawa Restoration Association

Former Yokohama City Councilor

Former Yokohama Bank employee

# Technical Commission 3AF- SIGMA 2



**3AF**  
Association Aéronautique  
et Astronautique de France

**3AF/ SIGMA2**

**Webinar 2: Approach to UAP physical observables (14-15 May 2024)**

<https://www.3af.fr/commission-technique/sigma>



**SCU**  
Scientific Coalition for UAP Studies  
Scientific Coalition of American Astronautical Professionals



**SOCIETY FOR UAP STUDIES**



**UAP** check



**VASCO**