



Cyber Security Basics plus more

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Cyber Basics

Australian Cyber Collaboration Centre (ACSC)

<https://www.cyber.gov.au/>

Top 3 things to protect yourself

1

Update your devices to protect important information



2

Protect your accounts with multi-factor authentication



3

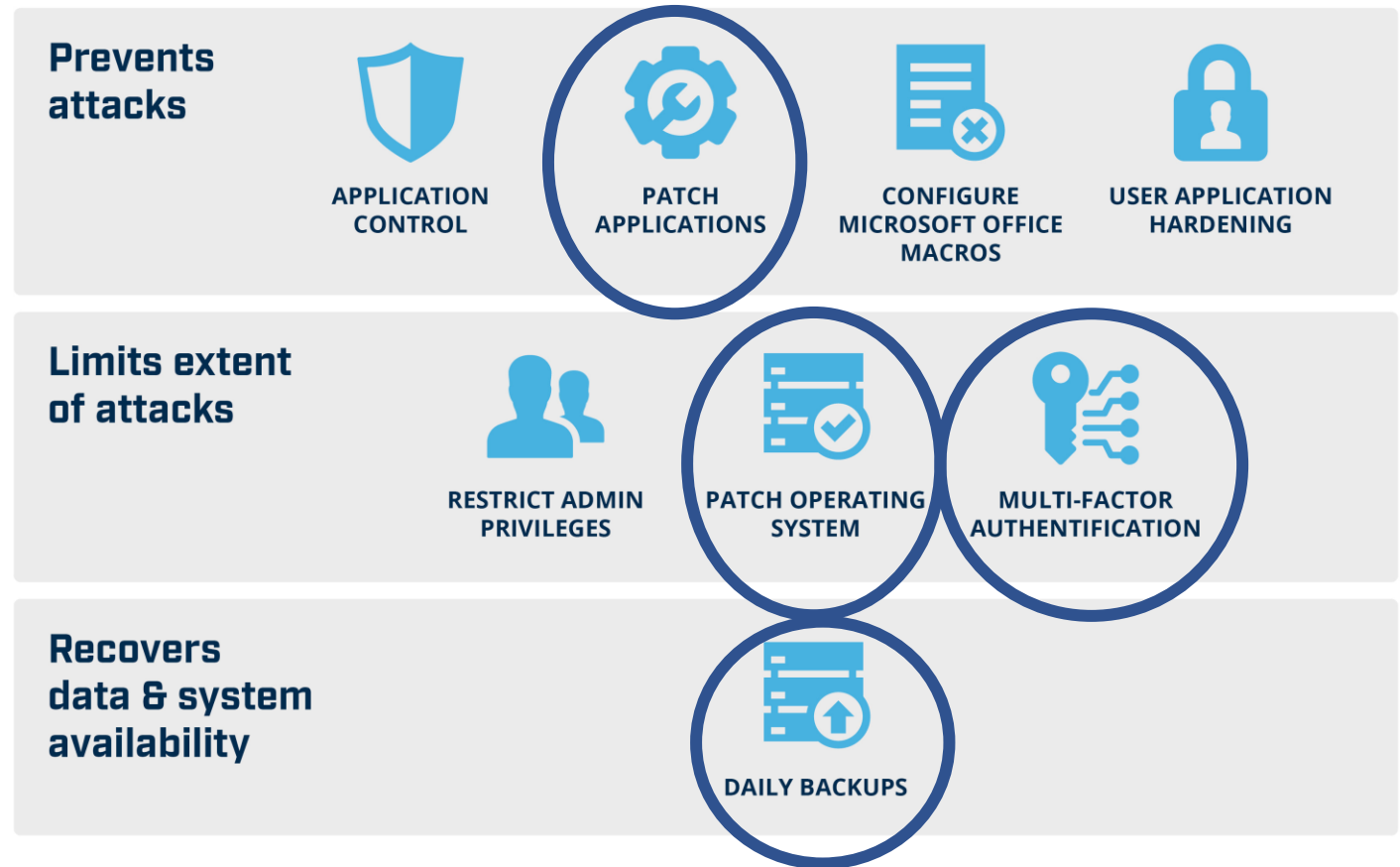
Back up data regularly to the cloud or an external hard drive



Some history – it's getting easier *well not really*

- ASD TOP 35
 - ASD Essential 8
 - ASD Top 4
-
- Now its just 3 😊

Essential 8 Security Controls



There are different levels of maturity

You are on a journey



The math of passwords

PASSWORD/ PASSPHRASE	TIME TO CRACK		EASY TO REMEMBER	COMMENTS
	Brute Force Attack	Dictionary		
password123	Instantly Less than AU\$0.01	Instantly	Very Easy	One of the most commonly used passwords on the planet.
Spaghetti95!	48 hours AU\$587.50	Instantly	Easy	Some complexity in the most common areas, and very short length. Easy to remember, but easy to crack.
5paghetti!95	24 hours AU\$293.70	Instantly	Easy	Not much more complexity than above with character substitution, and still short length. Easy to remember, but easy to crack.
A&d8j+1!	2.5 hours AU\$30.60	Instantly	Easy	Mildly complex, but shorter than the above passwords. Hard to remember, easy to crack (against BFA).
I don't like pineapple on my pizza!	More than 1 Year More than AU\$107,222.40	More than 40 days More than AU\$11,750.40	Easy	Excellent character length (35 characters). Complexity is naturally high given the apostrophe, exclamation mark and use of spaces. Very easy to remember, and very difficult to crack.

Use a password safe

Travel

<https://www.cyber.gov.au/acsc/view-all-content/publications/travelling-overseas-electronic-devices>

Clean Machines (or hardened)

- Burner Device
- Set it up to call home though.

Beware of WiFi

- Public WiFi.
- Paid / Hotel WiFi not much better.
- Man in the middle or evil twins exist.

Use a VPN

- Can make it connect to home router

Power

- Be self sufficient
- Beware of public chargers

Beware of any unknown USB drive or other media



Its much more than just technology

- Training and Awareness

[Seniors | eSafety Commissioner](https://www.esafety.gov.au/seniors)

<https://www.esafety.gov.au/seniors>

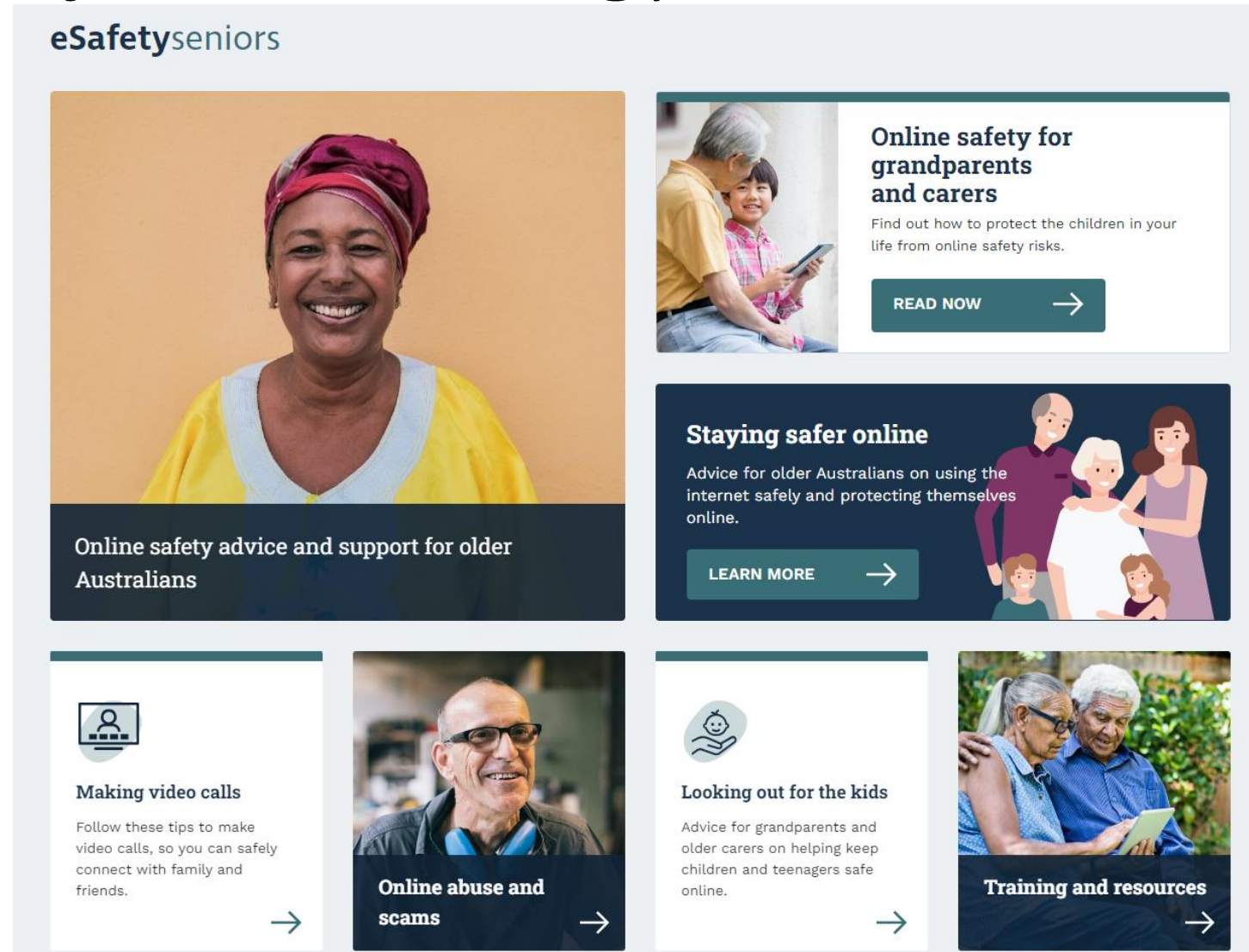
- Policies and Processes

Akin to a Bushfire plan

- Governance

Who makes decisions

who checks them



The screenshot displays the eSafety seniors website. At the top left is the eSafety seniors logo. Below it is a large portrait of a smiling woman with a red headscarf and a yellow top. To the right of this portrait is a card titled "Online safety for grandparents and carers" with a "READ NOW" button. Below the portrait is a dark blue banner with the text "Online safety advice and support for older Australians". To the right of this banner is another card titled "Staying safer online" with a "LEARN MORE" button. Below the banner are three smaller cards: "Making video calls" with a video call icon, "Online abuse and scams" with a photo of a man, and "Looking out for the kids" with a baby icon. To the right of these three cards is a fourth card titled "Training and resources" with a photo of an elderly couple. Each of these four cards has a right-pointing arrow at the bottom.

So much we didn't discuss

- Online Hacking Hardware shops
- Dark Web

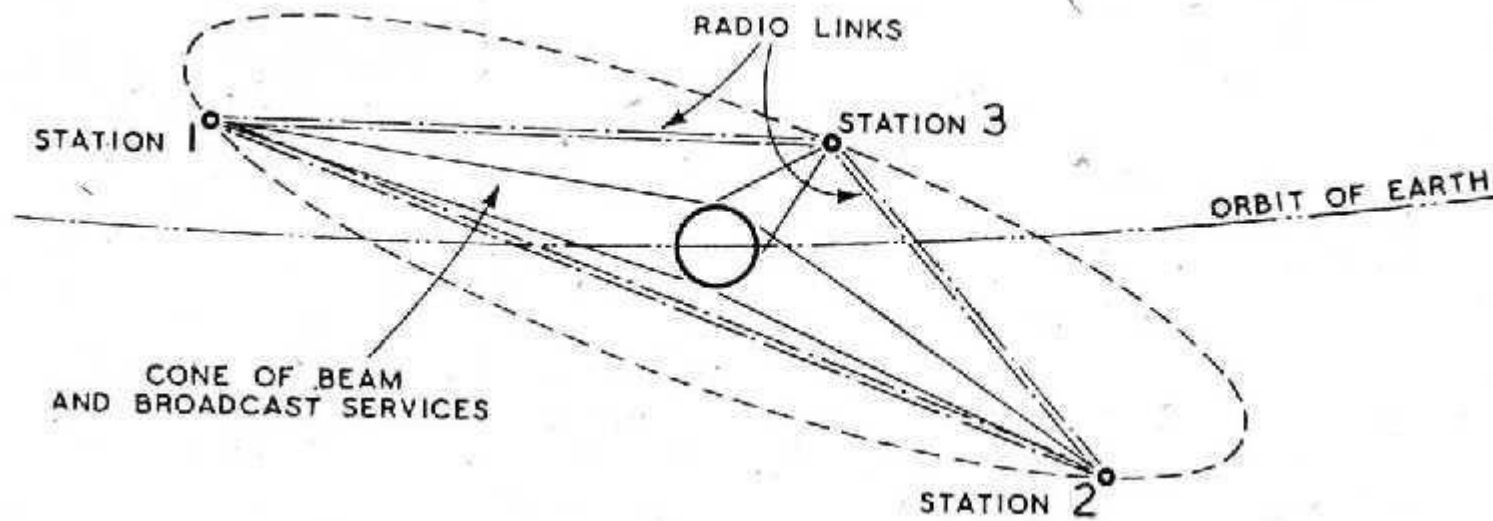




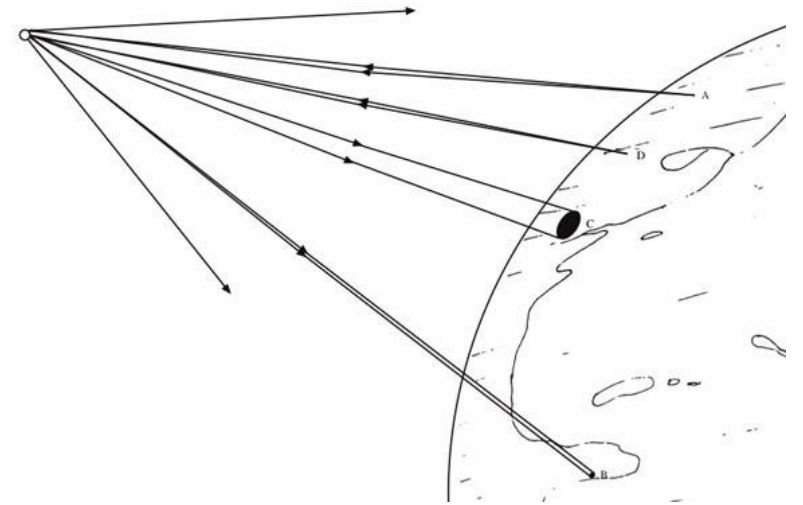
AND NOW ITS TIME FOR SOMETHING
COMPLETELY DIFFERENT

SPACE CYBER

Satellites first proposed in 1945



Arthur C Clark floated the idea of global communications satellites in a 1945 letter to the publication *Wireless World*.



Arthur C Clarks initial drawings

Most Recent Space Cyber Incidents

Ukraine / Viasat

Report: NSA Investigates Viasat Hack That Coincided With Ukraine Invasion

The agency is said to be collaborating with Ukrainian intelligence and ANSSI on the investigation.

NetBlocks @netblocks
What happened to Viasat? On the morning of 24 February, we tracked a major disruption to the satellite operator's operations across Europe, ongoing 11 days later.

If you have first-hand information on this apparent cyberattack, please reply here or send tip-offs to @GossiTheDog

Kevin Beaumont @GossiTheDog
Replying to @GossiTheDog
Here's the latest from @netblocks on Viasat KA-SAT - there's still an outage 11 days in, pretty much unheard of for an ISP.

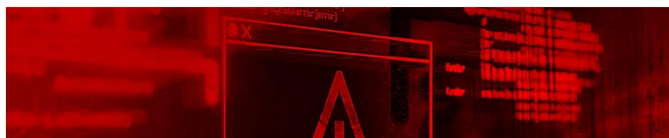


Home > News > Security > Viasat confirms satellite modems were wiped with AcidRain malware

Viasat confirms satellite modems were wiped with AcidRain malware

By **Sergiu Gatian**

March 31, 2022 01:25 PM



Attacked the user terminal, but how did they get access to the system ? via ground station, insider, other ?

What is the Policy on this, was this an attack on NATO Critical Infrastructure

Are the Russians justified in attacking civilian comms as it is aiding their enemy ?

Are the Russians justified in attacking civilian comms as it is aiding their enemy ?

Note a different orbit / layer comes to save the day

Daniel Floreani, CyberOps

The attack caused numerous customers of the KA-SAT service operated by Viasat to no longer have internet access. According to the government paper, the hackers took the decisive step in their attack on the morning of the Russian attack on Ukraine. At 5 a.m. on February 24, they activated a faulty update, causing KA-SAT customers to lose their network access.

The consequences of the attack were also felt in Germany. At least three thousand wind turbines, which are connected to the grid via the satellite provider and can normally be maintained remotely, were suddenly no longer accessible - although they could continue to run and generate electricity.

Viasat believes 'cyber event' is disrupting its satellite-internet service in Ukraine

PUBLISHED MON, FEB 28 2022-9:34 AM EST | UPDATED MON, FEB 28 2022-1:30 PM EST

Michael Sheetz @THESHEETZTWEETZ

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KEY POINTS

- California-based Viasat announced on Monday that it believes "a cyber event disrupted its satellite internet service in Ukraine."
- "Viasat is experiencing a partial network outage — impacting internet service fixed broadband customers in Ukraine and elsewhere on our European KA network," the company told CNBC.
- The Viasat outage began on Feb. 24, the day Russia invaded Ukraine.
- Elon Musk, CEO of Viasat rival SpaceX, said his company's service is "active in Ukraine," with "more terminals en route" to provide internet access to the country.



Most Recent Space Cyber Incidents

EO

Commercial spy satellites put Russia's Ukraine invasion in the public eye

by Sandra Erwin — February 27, 2022



Satellite image released by Maxar Feb. 27 shows a convoy of Russian military vehicles northeast of Ivankiv, Ukraine, and moving toward Kyiv. Credit: Maxar Technologies

Are the Russians justified in attacking civilian geospatial imagery services as it is aiding their enemy ? Can they physically attack the satellite – what about a cyber attack ?

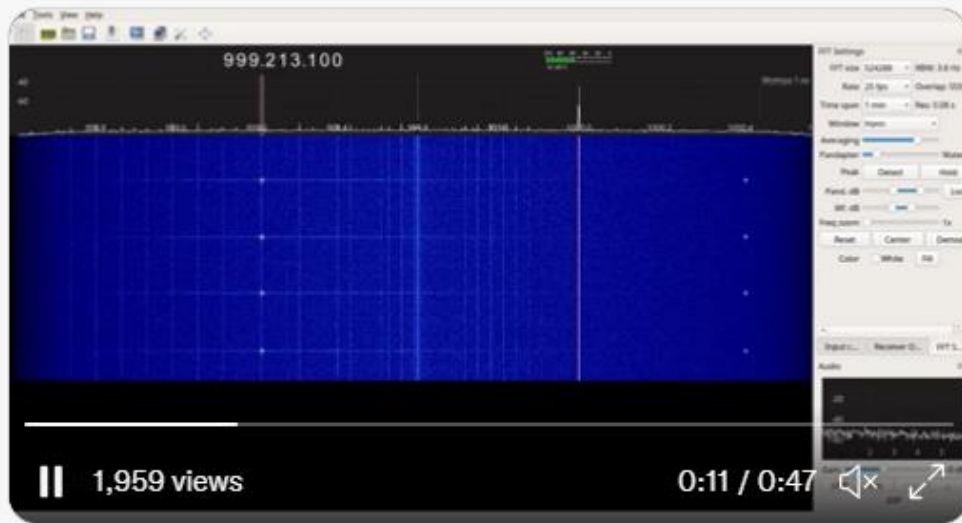
Most Recent Space Cyber Incidents

Radar



Scott Tilley 🇺🇦 @coastal8049 · Mar 13

Loud RADAR emissions this morning via MERIDIAN 8. Lots of other RADAR activity heard intermittently.



Amateur Radio experts pickup Russian/Ukrainian radars being replayed to earth via Russian Satellites. SIGINT is in the hands of amateurs (as it has done before and will again).

Most Recent Space Cyber Incidents

Social Media

Russia Mounts Missile Strike Near Polish Border



Smoke billows from burning containers after shelling in Vasylyiv, south west of Kyiv, Ukraine, March 12, 2022.

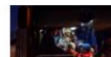
WARSAW, POLAND — One of Ukraine's biggest military training bases, located 25 kilometers from the Polish border in the west of the country, was struck by Russian missiles in an attack that left 35 people dead and 134 others injured, according to Ukrainian officials.

The base at Yavoriv is only 60 kilometers from Lviv, a major hub for Ukrainian evacuees heading into Poland. It has also been used by NATO military instructors, but Ukrainian officials say they are still trying to establish whether any were on-site for the attack and were injured.

Related



In Photos: Fierce Fighting Between Russia and Ukraine Forces Near Irpin



Latest Developments in Ukraine: March 13

Intel gathered from Facebook tipped off Russia that a group of foreign mercenaries had assembled at this training base at the time of the bombing.

Most Recent Space Cyber Incidents

Anom

RUSSIA · Published February 25, 2022 12:30am EST

Hacking collective Anonymous appears to declare war on Putin after Russia invades Ukraine

Multiple Russian government websites were intermittently unavailable on Thursday

By Paul Best | Fox News



**Would you be more scared of ANOM or Russia ?
Short term or long term ?**

Social Media and Mercenaries

How War in Ukraine Roiled Facebook and Instagram

The rules over what war content is permitted on Facebook and Instagram keep changing, causing internal confusion.


Is recruiting freedom fighters via FB ok ?

Ukraine says 35 people killed in Russian air strike on military facility used for NATO drills near Polish border



Posted Sun 13 Mar 2022 at 7:36pm, updated Mon 14 Mar 2022 at 8:19am



As a result of the strike, up to 180 foreign mercenaries and a large amount of foreign weapons were destroyed," he said.



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Mercenary Fighters in Libya and Ukraine: How Social Media Are Exposing the Russian Wagner Group

Author: [Biancamaria Vallortigara](#)

This issue of Bee-Hive explores the emerging reports of Libyan mercenaries involved in the current conflict in Ukraine.

Date: May 31, 2022



Shashank Joshi ✓
@shashj

Good BBC investigation into mercenary recruitment. "The serving mercenary said many veterans of the... Wagner organisation were contacted on a private Telegram group a few weeks before the start of the war. They were invited to a "picnic in Ukraine".



PsyOps and Cyber

- Using cyber is now the modern leaflet drop



Russian President Vladimir Putin gives a speech at the Saint Petersburg International Economic Forum.
(Photo by Olga MALTSEVA / AFP)

Putin - whose speech was delayed by a cyber attack on the venue - said sanctions placed on Russia in the wake of its invasion of Ukraine were “mad and pointless”.

Daniel Horcan, CyberOps



Below:

"This location is subject to bombardment. Escape now and save yourselves."
FRONT



Questions

