

CYBER SECURITY IN THE NEWS

Weekly Current Events Assignment

WEEKLY ASSIGNMENT:

- Each Week, Find a Cyber Security Related Article, News Story, Event
- Create 4 slide presentation (see Template in pages N, N)
- Submit Electronically (Shared Google Doc, or Emailed power point File)
- Be prepared to present 6 min presentation on the day it's due
 - 2 Students will be Selected at Random
 - All Students should be prepared, and each will be selected 3-4 times between now and the end of the year

DUE EACH WEEK:

- Format : Shared Google Doc, or Word Power Point
- Name format:
 - lastnameFirstnameMMDDYYYY-TitleAllOneWordNoSpaces
 - burnhamJim08232016-HackingDrones

3 SLIDES

- 1st Slide: Title and Overview 2-3 paragraphs (200 words)
 - This is back ground information in the form of a few paragraphs...
 - You don't present this slide.
 - Use content to build bullets on 2nd and 3rd slides, which you will present
- 2nd Slide: title slide
 - Title, link
 - 3-4 bullets on How is this related to Cyber Security?
- 3rd Slide: Problem and Solutions
 - What Problem does it show?
 - How would Hackers / Malware take advantage?
 - What is the potential Damage / Danger?
 - What would / is the solution?

DRONE DESIGN FLAWS GET EXPOSED

- <http://www.ien.com/product-development/news/20782154/team-exposes-drone-design-flaws>
- Sales of drones--small flying machines equipped with cameras--are soaring. But new research by a Johns Hopkins computer security team has raised concerns about how easily hackers could cause these robotic devices to ignore their human controllers and land or, more drastically, crash.
- There are drones starting to appear in every industry, and there is a real need to make sure that they are safely controlled and do not endanger the public when flying autonomously

HOW IS THIS RELATED TO CYBER SECURITY?

- There are already Drones flying in our neighborhood airspace
- Drones are not just remote controlled Airplanes, they are networked and packet driven and controlled devices
- They have the same vulnerability's as a web server or wirelessly networked computer
- Need to secure the Drones communication network, and protect it from DOS attacks

PROBLEM AND SOLUTIONS

- What Problem does it show?
 - Drones suffer from DOS attacks
- How would Hackers / Malware take advantage?
 - Crash or hijack a drone and steal it or it's cargo
- What is the potential Damage / Danger?
 - Danger to the public from crashing Drones
- What would / is the solution?
 - Make Drone Network use an Encrypted communication protocol
 - Have a safe algorithm for when a Drone loses network communication