Assignment 1 - System Categroization
Security Categorization
CSE 4380

Group Thorin

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1 Security Categorization

1.1 Reference Standards

- FIPS 199: Security categorization for federal systems.
- NIST SP 800-60: Mapping security categories to information types.

1.2 Impact Levels (Confidentiality, Integrity, Availability)

Information Types	Confidentiality	Integrity	Availability
Rotors	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
Electronic Speed Cor	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
GPS Module	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
Inertial Measurement (IMU)	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
Flight Controller Boa	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
Transmitter reciever	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
High-Capacity Batte	L minimal impact due to information only of the battery itself	L Due to loss of Integrity	H severe impact to the mission can no longer operate drone without power
Power Distribution B	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
Volatage Regulators	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
Antenna Telementry Module	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability

Information Types	Confidentiality	Integrity	Availability
FILL	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
FILL	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
FILL	L Due to loss of Confidentiality	L Due to loss of Integrity	L Due to loss of availability, severe impact to the mission capability
General-Information	L	L	L
System Categorization			
	Moderate	High	High

1.3 Overall Categorization

Overall Information System Impact: **High**

1.4 Justification

The Aerotech Drone system's High impact categorization derives from:

- Critical role in power distribution for military operations
- Potential for catastrophic consequences including infrastructure failure and loss of life
- Remote control capabilities affecting physical systems
- Real-time processing requirements for energy management

2 Risk Management & Compliance

Alignment with Risk Management Framework (RMF) per NIST SP 800-37. Categorization informs security control selection (NIST SP 800-53). Ongoing assessment and mitigation per FIPS 200 minimum security controls.