Based on the provided assurance case pattern for threat identification, here is a hierarchical tree structure using Goal Structuring Notation elements for the security case of ACAS Xu. This security case will address the identified security requirements and threats within ACAS Xu as described in the domain information.

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G0: ACAS Xu satisfies security requirements

- C0: Description of ACAS Xu

- C1: SR are requirements about protecting the system from malicious entities

- J0: The argumentation is based on satisfaction of SRs

- A0: System SRS are complete, adequate, and consistent

- S0: Argue through asset protection and secure development requirements

- G1: ACAS Xu satisfies the asset protection requirements

- A1: Asset inventory is established

- S1: Argue through the different stages of the system development life cycle

- G3: Asset protection requirements are met during the architecture design phase

- C2: Description of the ACAS Xu architecture

- S2: Argue through deriving security threats from SRs

- J1: Detection and mitigation of threats fulfill SRs

- G5: ACAS Xu architecture is protected against identified security threats (STs)

- A2: All relevant threats have been identified

- S3: Argue over each security threat

- G0.1: ACAS Xu architecture is protected against ST1 (Tampering)

- G0.2: ACAS Xu architecture is protected against ST2 (Spoofing)

- G0.3: ACAS Xu architecture is protected against ST3 (Elevation of Privileges)

- G6: ACAS Xu architecture is validated [Undeveloped]

- G4: Asset protection requirements are met during other phases [Undeveloped]

- G2: ACAS Xu satisfies secure development requirements [Undeveloped and Uninstantiated]

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\*\*Explanation and Use of Pedicates and Decorators:\*\*

- \*\*SupportedBy\*\* relationships are used to demonstrate how strategies support goals and how goals are subdivided into further goals and strategies.

- \*\*IncontextOf\*\* relationships place goals and strategies within the specific contours of the ACAS Xu architecture and its security requirements, adding context items, justifications, and assumptions close to the related goals.

- \*\*Undeveloped\*\* is used for goals G4 and G6, indicating these areas need further detailed expansion.

- \*\*UndevelopStantiated\*\* is used for G2 showing that it is not only undeveloped but also uninstantiated for specific context to ACAS Xu.

- Specific \*\*Uninstantiated\*\* decorators on several other elements show they need concrete data specific to ACAS Xu.

- \*\*HasPlaceholder\*\* decorator calls out that G0, several context items (C0, C2, C3), and other goals have placeholders when obstacles or specific system information needs to be tailored to ACAS Xu specifics.

This tree structure gives a clear breakdown of the security argument, detailing how each component works to safeguard the UAV from identified threats while addressing the broader assurance of security requirements.