Based on the provided information and the template provided for a security case pattern with given elements and their relationships, here is how you can instantiate the security case for ACAS Xu using the GSN format in a hierarchical tree structure:

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G0: ACAS Xu satisfies security requirements

C0: ACAS Xu is a collision avoidance system for UAVs

C1: Security requirements are to ensure the system is protected from tampering, spoofing, and privilege escalation attacks

J0: The structure of this argumentation is based on the satisfaction of SRs

A0: System SRS for ACAS Xu are complete, adequate, and consistent

S0: Argument through asset protection and secure development requirements

G1: ACAS Xu satisfies the asset protection requirements

A1: An asset inventory for ACAS Xu has been established

S1: Argument through the different stages of the system development lifecycle

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

C2: Architecture includes sensors, processors, planners, and actuators

S2: Argument derived from identifying security threats from SRs

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

A2: All relevant threats have been identified

S3: Argument over each security threat

G0.1: ACAS Xu architecture is protected against ST1 - Tampering of GPS and processor

G0.2: ACAS Xu architecture is protected against ST2 - Spoofing of sensors and processor

G0.3: ACAS Xu architecture is protected against ST3 - Elevation of privileges in the planning system

G6: ACAS Xu architecture is validated (undeveloped and uninstantiated)

C3: Description of ACAS Xu architectural model (uninstantiated)

A3: ACAS Xu architecture model is well defined in a particular formal method (uninstantiated)

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:

1. \*\*Goal G0\*\* has been instantiated to specialize the security requirements for the ACAS Xu system. Context elements \*\*C0\*\* and \*\*C1\*\*, justification \*\*J0\*\*, and assumption \*\*A0\*\* provide the necessary background and validation for this goal.

2. \*\*Strategy S0\*\* supports and refines \*\*G0\*\*, connecting it to \*\*G1\*\* and \*\*G2\*\*:

- \*\*G1\*\* addresses the asset protection requirements with further support provided by \*\*S1\*\* which branches into \*\*G3\*\* and \*\*G4\*\*. Context \*\*C2\*\* relevant for \*\*G3\*\* dissects architecture-specific requirements.

- \*\*S2\*\* under \*\*G3\*\* guides the delineation of security threats into \*\*G5\*\* and \*\*G6\*\*, connecting identified security threats directly to protective measures in the specific goals \*\*G0.1, G0.2,\*\* and \*\*G0.3\*\*.

- \*\*G2\*\* is kept undeveloped and uninstantiated for now, indicating pending further specification.

3. Decorators such as undeveloped and uninstantiated are represented precisely as described by the pattern but replaced with specific instantiation where necessary.

This structured representation maintains the logical hierarchy of goals, strategies, contexts, justifications, and assumptions where each nested level contributes specifically towards building a comprehensive security case for ACAS Xu.