Based on the ACAS Xu domain information provided, here is the instantiated security case in a hierarchical tree format:

```

- Goal: G0: ACAS Xu satisfies security requirements

- Context: C0: ACAS Xu is a collision avoidance system for UAVs

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

- Justification: J0: The argumentation is based on satisfaction of SRs

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

- Strategy: S0: Argue through asset protection and secure development requirements

- Goal: G1: ACAS Xu satisfies the asset protection requirements

- Assumption: A1: Asset inventory is established

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

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

- Context: C2: Description of ACAS Xu architecture

- Strategy: S2: Argue through derivating security threats from SRs

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

- Assumption: A2: All relevant threats have been identified

- Strategy: S3: Argue over each security threat

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

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

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

- Goal: G6: ACAS Xu architecture is validated

- Context: C3: Description of ACAS Xu architecture model

- Assumption: A3: ACAS Xu architecture model is well defined in a formal method

- Goal: G4: Asset protection requirements are met during other phases (Undeveloped)

- Goal: G2: ACAS Xu satisfies secure development requirements (UndevelopStantiated)

```

### Explanation of the Security Case:

1. \*\*Goal (G0):\*\* ACAS Xu satisfies security requirements.

- \*\*Context (C0):\*\* Describes the ACAS Xu system.

- \*\*Context (C1):\*\* Specifies that SRs are about protecting the system from malicious entities.

- \*\*Justification (J0):\*\* Based on the satisfaction of SRs.

- \*\*Assumption (A0):\*\* System SRS are complete, adequate, and consistent.

- \*\*Strategy (S0):\*\* Argument is based on asset protection and secure development requirements.

2. \*\*Goal (G1):\*\* ACAS Xu satisfies the asset protection requirements.

- \*\*Assumption (A1):\*\* Asset inventory is established.

- \*\*Strategy (S1):\*\* Argument through different stages of the system development life cycle.

3. \*\*Goal (G3):\*\* Asset protection requirements are met during the architecture design phase.

- \*\*Context (C2):\*\* Specifies the description of ACAS Xu architecture.

- \*\*Strategy (S2):\*\* Argument through derivating security threats from SRs.

4. \*\*Goal (G5):\*\* ACAS Xu architecture is protected against identified security threats (STs).

- \*\*Assumption (A2):\*\* All relevant threats have been identified.

- \*\*Strategy (S3):\*\* Argument over each security threat.

5. \*\*Goals (G0.1, G0.2, G0.3):\*\* Specific goals addressing identified security threats:

- \*\*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).

6. \*\*Goal (G6):\*\* ACAS Xu architecture is validated.

- \*\*Context (C3):\*\* Specifies description of ACAS Xu architecture model.

- \*\*Assumption (A3):\*\* ACAS Xu architecture model is well defined in a formal method.

7. \*\*Goal (G4):\*\* Asset protection requirements are met during other phases (Undeveloped).

8. \*\*Goal (G2):\*\* ACAS Xu satisfies secure development requirements (UndevelopStantiated).

This hierarchical tree structure captures the logic of the security case for ACAS Xu, following the pattern provided and instantiating it with relevant details from the domain information.