Here is the instantiated security case for ACAS Xu (Airborne Collision Avoidance System Xu) derived from the given security case pattern:

```

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

- 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 Tampering

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

- G0.3: ACAS Xu architecture is protected against Elevation of privileges

- G6: ACAS Xu architecture is validated

- C3: Description of ACAS Xu architecture model

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

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

- G2: ACAS Xu satisfies secure development requirements (undevelopStantiated)

```

Explanation of instantiation steps:

1. \*\*Goal (G0):\*\*

- Original Pattern: Goal (G0, {System} satisfies security requirements)

- Instantiated: G0: ACAS Xu satisfies security requirements

2. \*\*Context (C0):\*\*

- Original Pattern: Context (C0, Description of {system})

- Instantiated: C0: Description of ACAS Xu

3. \*\*Goal (G1):\*\*

- Original Pattern: Goal (G1, {System} satisfies the asset protection requirements)

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

4. \*\*Context (C2):\*\*

- Original Pattern: Context (C2, Description of {architecture})

- Instantiated: C2: Description of the ACAS Xu architecture

5. \*\*Goal (G5):\*\*

- Original Pattern: Goal (G5, {System} architecture is protected against identified security threats (STs))

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

6. \*\*Context (C3):\*\*

- Original Pattern: Context (C3, Description of {system} architecture model)

- Instantiated: C3: Description of ACAS Xu architecture model

7. \*\*Assumption (A3):\*\*

- Original Pattern: Assumption (A3, {System} architecture model is well defined in {formal method})

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

8. \*\*Goal (G0.X):\*\*

- Instantiated Instances:

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

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

- G0.3: ACAS Xu architecture is protected against Elevation of privileges

Finally, placeholders, uninstantiated, and undeveloped decorators are removed, and generic information is replaced with concrete details specific to ACAS Xu. The resulting hierarchical tree structure above shows the instantiated security case for ACAS Xu