Based on the given assurance case pattern and the domain information about the BlueROV2 system, let’s instantiate and structure the assurance case for this specific underwater remotely operated vehicle.

\*\*Assurance Case for BlueROV2 System\*\*

- Goal (G1, Hazards for BlueROV2 system addressed in accordance with ALARP principle.)

- Strategy (S1, Argument by risk reduction/elimination of each hazard)

- Goal (G2, No intolerable risks present in the system.)

- Strategy (S2, Argue that risk posed by any remaining hazards is negligible) (\*Undeveloped\*)

- Strategy (S3, Argue that no other risks have been identified) (\*Undeveloped\*)

- Context (C1, Definition of "intolerable")

- Goal (G3, Risk from each identified hazard has been reduced as low as reasonably practicable.)

- Strategy (S4, Apply ReSonAte to estimate level of risk from each hazard condition)

- Goal (G4, Model for each BTD accurately describes possible propagation of hazard.)

- Goal (G6, Possible hazard propagation paths correctly captured in BTD) (\*Undeveloped\*)

- Goal (G7, Barriers in the BTD correctly describe their respective control action including any required system functions) (\*Undeveloped\*)

- Goal (G8, All non-negligible threats have been identified) (\*Undeveloped\*)

- Goal (G5, Quantitative risk estimates are accurate and below acceptable threshold)

- Goal (G9, State probability distribution used for risk estimation is an accurate representation of expected system states) (\*Undeveloped\*)

- Goal (G10, Estimated probability of consequence is below allowable threshold for severity class)

- Solution (Sn1, Estimated risk level 10^-3 per hour)

- Context (C2, Assigned severity class is Major) (\*Uninstantiated\*)

- Assumption (A1, Function such as obstacle detection required by BTD is available) (\*Uninstantiated\*)

\*\*Notes:\*\*

1. The assurance case is constructed around demonstrating adherence to the ALARP principle for the identified hazards of the BlueROV2.

2. Several goals and strategies remain undeveloped at this stage, indicating areas where further evidence or development is needed.

3. We placed placeholders in the text of some elements, such as the system name (`BlueROV2`), hazard names (like `Deviation from the operating area`, `Obstacle encounter`), and the model type (`BTD`).

4. The strategy S4 particularly focuses on each identified hazard using a probabilistic risk estimation method, possibly utilizing a method like ReSonAte.

5. Some assumptions and contexts have been left uninstantiated due to unavailable specific details or sources at this stage.

This hierarchical structure ensures a disciplined approach to risk analysis by focusing on risk reduction per hazard, proper modeling of hazard propensities, and close monitoring of risk thresholds.