Below is the hierarchical tree structure of the assurance case for the BlueROV2 system based on the given assurance case pattern and domain information.

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- 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.)

- Context (C1, Definition of "intolerable")

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

- Strategy (S3, Argue that no other risks have been identified) [Undeveloped]

- Goal (G3, Risk from obstacle encounter hazard has been reduced as low as reasonably practicable)

- Context (C2, Assigned severity class is Major) [Uninstantiated, HasPlaceholder]

- Strategy (S4, Apply ReSonAte to estimate level of risk from hazard condition obstacle encounter) [Uninstantiated, HasPlaceholder]

- Assumption (A1, Function avoidance logic required by obstacle encounter BTD is available) [Uninstantiated, HasPlaceholder]

- Goal (G4, Model obstacle encounter BTD accurately describes possible propagation of hazard obstacle encounter) [Uninstantiated, HasPlaceholder]

- 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 collision is below allowable threshold for severity class) [Uninstantiated, HasPlaceholder]

- Solution (Sn1, Estimated risk level 10^-3 per hour) [Uninstantiated, HasPlaceholder]

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To summarize and replace the placeholders:

- The phrase `{A :: System}` in Goal (G1) is replaced by “BlueROV2 system.”

- The phrase ` {B:: Hazard}` in Goal (G3) is replaced by “obstacle encounter.”

- The phrase ` {R:: Hazard}` in Goals (G4) and Strategy (S4) is replaced by “obstacle encounter.”

- The phrase `{S:: BTD}` in Goal (G4) is replaced by “obstacle encounter BTD.”

- The phrase `{U:: Consequence}` in Goal (G10) is replaced by “collision.”

- The context (C2) is instantiated as "Major."

- The assumption (A1) indicates the function "avoidance logic."

- The solution (Sn1) provides a specific estimated risk level "10^-3 per hour".

Keep in mind that several elements are uninstantiated and a placeholder is yet to be defined. Additionally, some strategies and goals are undeveloped, meaning further refinement or detailed evidence is required to complete all elements of the assurance case.