Based on the predicate rules and the domain information provided, the assurance case for the BlueROV2 system can be structured as follows. This assurance case will implement the given assurance case pattern by replacing the placeholders and addressing undeveloped or uninstantiated elements according to the BlueROV2 system's specifics:

```

- 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.")

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

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

- Context (C1, "Definition of 'intolerable'")

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

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

- Goal (G4, "Model Obstacle encounter BTD accurately describes possible propagation of hazard Obstacle encounter")

- [Undeveloped] 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")

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

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

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

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

- Context (C2, "Assigned severity class is Major")

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

```

This tree structure represents the hierarchical relationship between goals, strategies, and supporting elements. Each element is structured using indentation to show their dependencies and denote different levels (-).

### Additional Notes:

- \*\*Contexts and Assumptions:\*\* They are set relating to the specific system details (e.g., C2 about the hazard severity).

- \*\*Uninstantiated Components:\*\* In some cases, elements like Sn1 are still marked as uninstantiated because they are placeholders dependent on specific data not provided.

- \*\*Undeveloped Elements:\*\* Some strategies and goals are left undeveloped (e.g., S2, S3, G6, G7, G8, G9), possibly for future expansion or due to current limitations in the available information or scope of this case.

- \*\*Multiplicity and Choice:\*\* Insufficient information was given to detail implementations of multiplicity and choice within this description, highlighting where further information could allow additional expansion or refinement.